The Intelligent Surveillance Solution

NVR/DVR/Hybrid NDVR
User Manual

Ver. 4.0.0.120904.00

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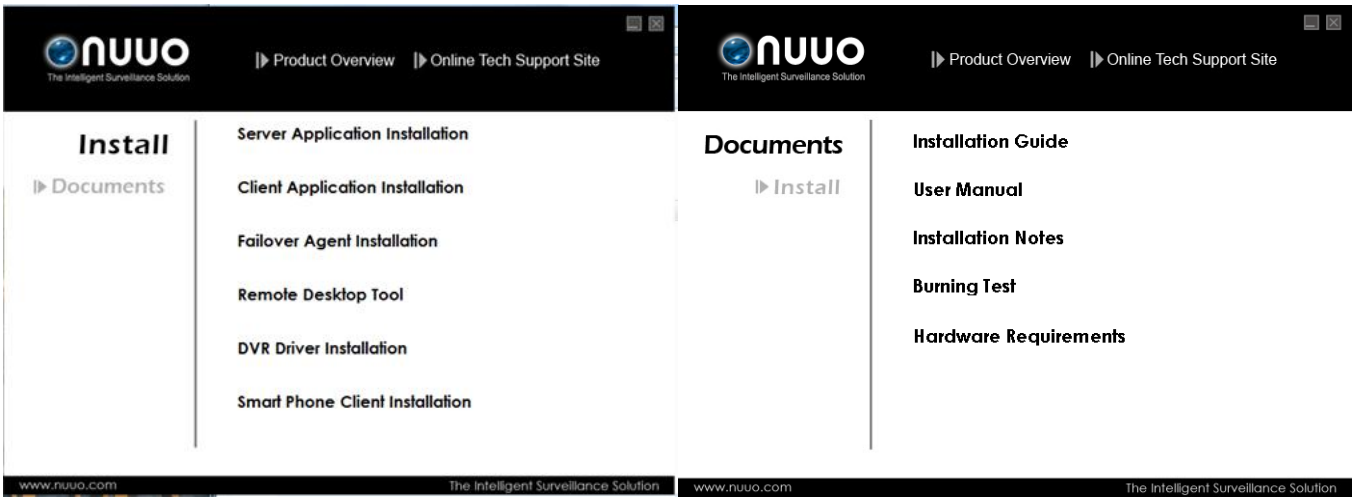
INSTALLATION

The Installation CD contains the software you need to run the complete system.
After inserting the CD, you should be able to see this window:

Click on **Product Overview** to access NUUO's official website www.nuuo.com for the latest product information. You may also visit our **Online Tech Support Site** for FAQ.
Click on **Install** if you wish to start system installation immediately, or Click on **Documents** for extra info.



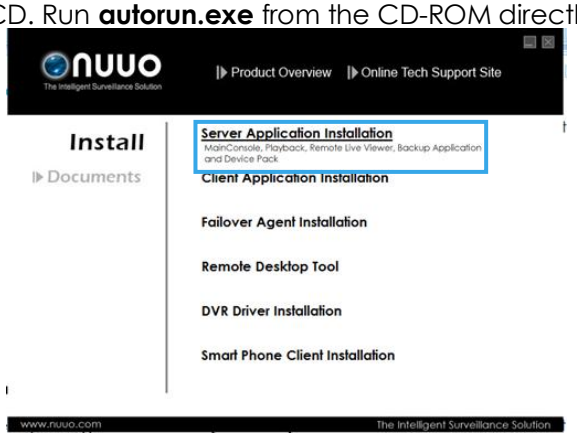
If you are installing the system on multiple PCs, install the appropriate software for each PC:

- **Server Application:** All functions of NVR/DVR/Hybrid NDVR systems including Main Console, Playback, Remote Live Viewer, Backup, and Verification Tool.
- **Client Application:** Remote functions of NVR/DVR/Hybrid NDVR systems including Playback, Remote Live Viewer, Backup, and Verification Tool.
- **Remote Desktop Tool:** The tool to access main console and setup configuration remotely.
- **DVR Driver:** The tool to detect the type of capture cards and install the proper driver automatically.
- **Smart Phone Client:** Client application for smart phone devices.
- **Related Link:** Click for more information including User Manual, Installation guide and Hardware Requirements.

The following section describes the installation of each element of the Intelligent Surveillance System.

Server Application Installation

Step 1: Insert the Installation CD. Run **autorun.exe** from the CD-ROM directly to start the installation.



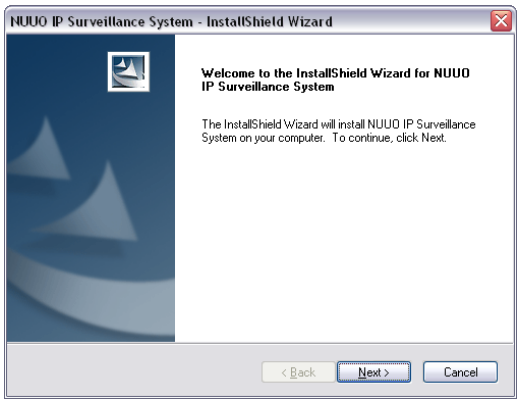
Step 2: Select **Server Application Installation**.

Step 3: There are 4 system types listed in the **System Setup Tool** window. Choose one and select **Next**.

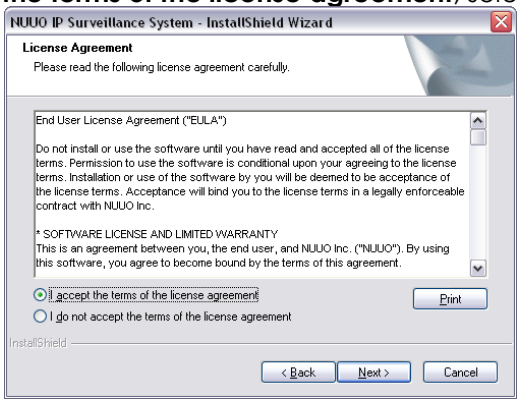
- NUUO IP Surveillance System/Trial System
- NUUO MPEG-4 Hybrid System
- NUUO H.264 Hybrid System
- NUUO Full D1H.264 Hybrid System

Note: The Setup Tool will detect the type of capture cards installed on PC and enable the system options automatically.

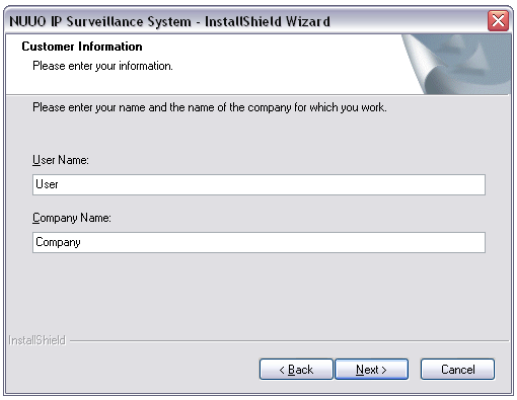
Step 4: Select Next to continue.



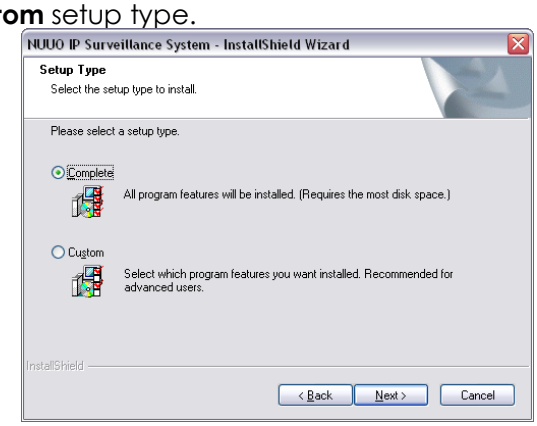
Step 5: Check the option **I accept the terms of the license agreement**, select **Next** to continue.



Step 6: Enter the appropriate information, select **Next** to continue.



Step 7: Choose **Complete** or **Custom** setup type.



COMPLETE SETUP TYPE

Installs all program features into the default directory.

Check **Complete**, and then select **Next**. All program features will be installed. [COMPLETE SETUP requires the most disk space.]

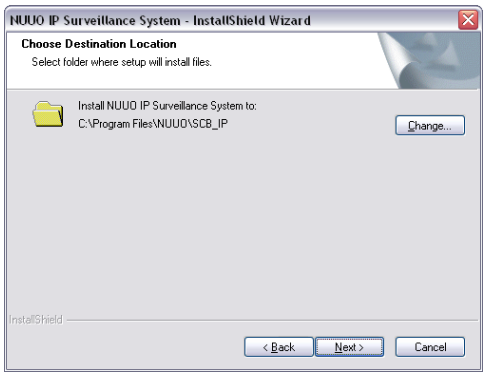
CUSTOM SETUP TYPE

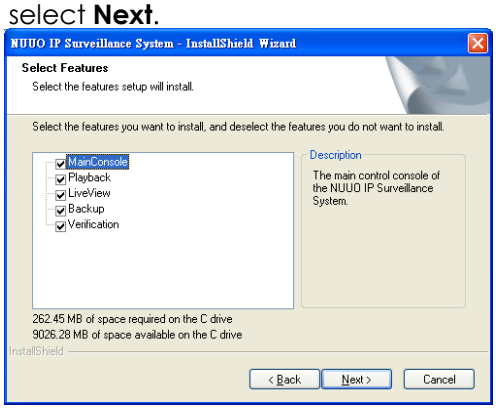
Allows you to install the system to a preferred directory and select whichever program feature(s) to install. [Recommended for advanced users]

Check **Custom**, and then select **Next**.

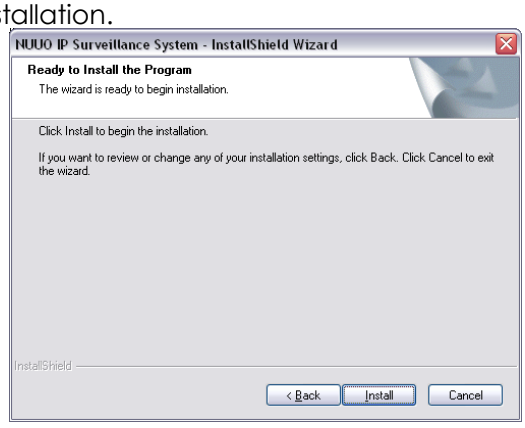
Select **Change** if you wish to modify the installation directory.

Select the feature(s) for setup to install, select **Next**.

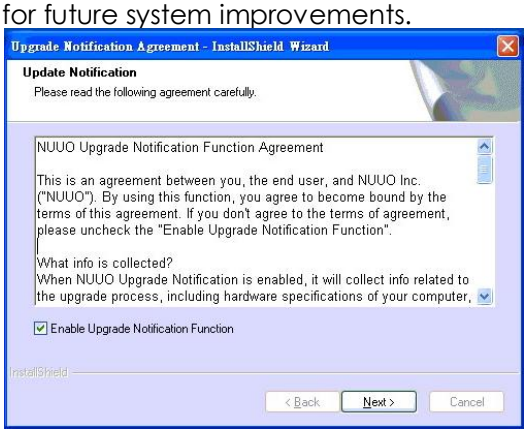




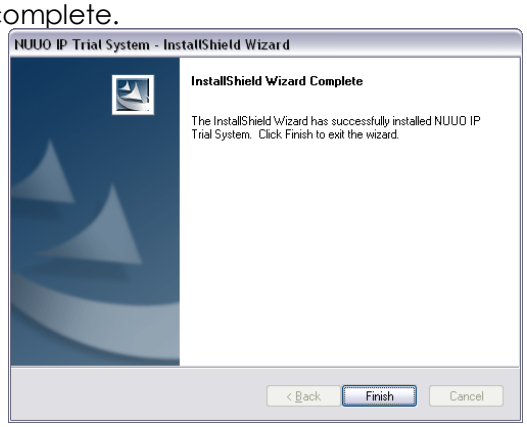
Step 8: Select **Install** to start the installation.



Step 9: Check **Enable Ute Notification Function** to allow us to notify you automatically when there are software utes (Recommended). This will help keep your system up to date. The uter will also collect info from your system that will be used for future system improvements.

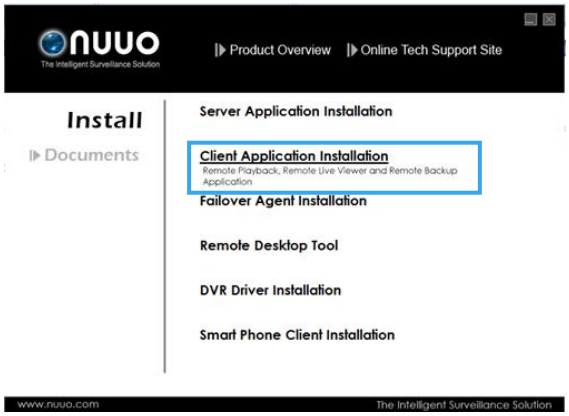


Step 10: Select **Finish**, installation complete.



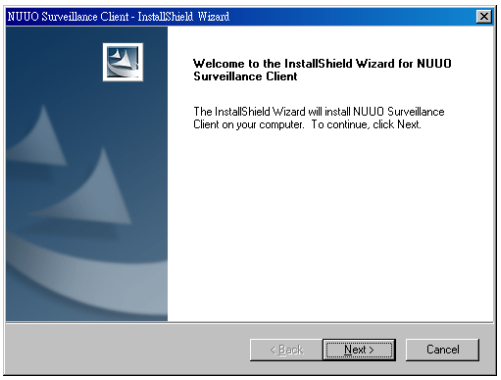
Client Application Installation

Step 1: Insert the Installation CD, run **autorun.exe** from the CD-ROM to start the installation.

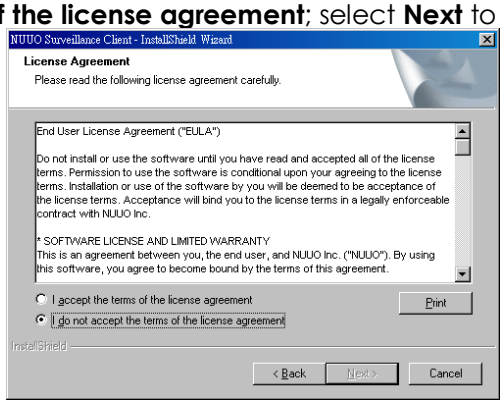


Step 2: Select **Client Application Installation**.

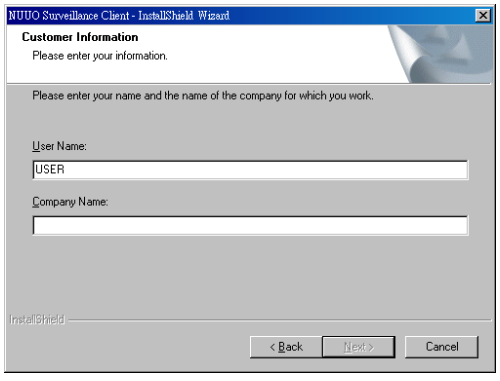
Step 3: Select **Next** to continue.



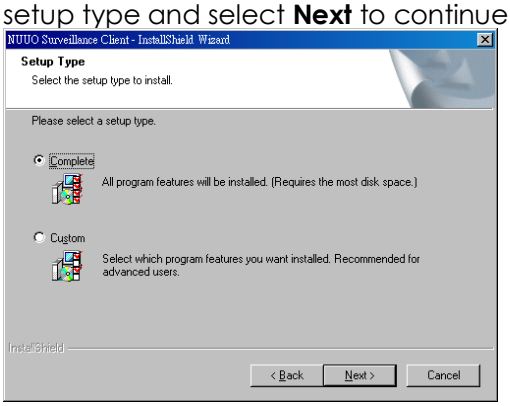
Step 4: Check **I accept the terms of the license agreement**; select **Next** to continue.



Step 5: Enter your information and select **Next** to continue.



Step 6: Select **Complete** or **Custom** setup type and select **Next** to continue.



COMPLETE SETUP TYPE

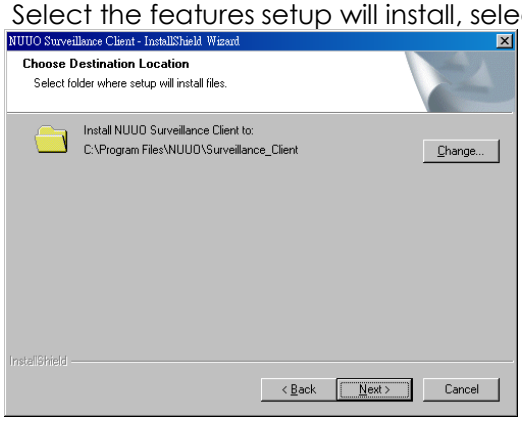
Installs all program features into the default directory.

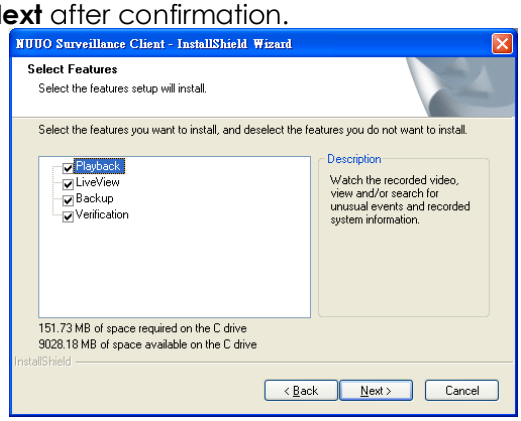
Check **Complete**, and then select **Next**. All program features will be installed. [COMPLETE SETUP requires the most disk space.]

CUSTOM SETUP TYPE

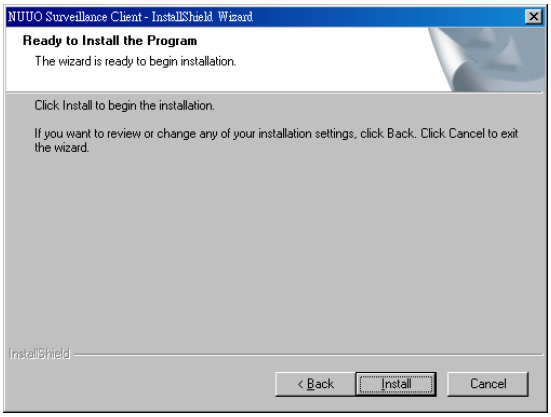
Installs the system to a preferred directory and allows you to select whichever program feature(s) to install. [Recommended for advanced users]

Check **Custom** option and then click **Next**.
Select **Change** to modify the installation directory where setup will install, select **Next**.
Select the features setup will install, select **Next** after confirmation.





Step 7: Select **Install** to begin the installation.

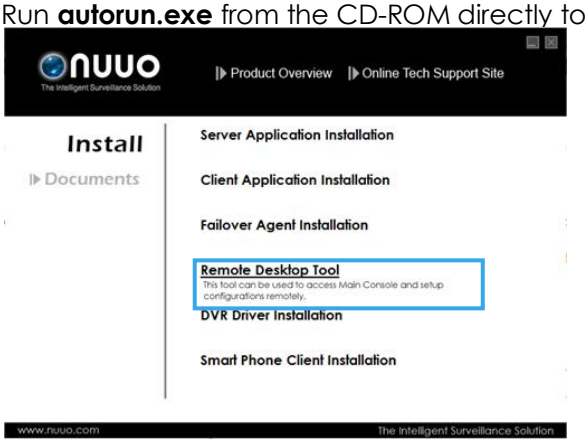


Step 8: Select **Finish** when install is complete.

Remote Desktop Tool

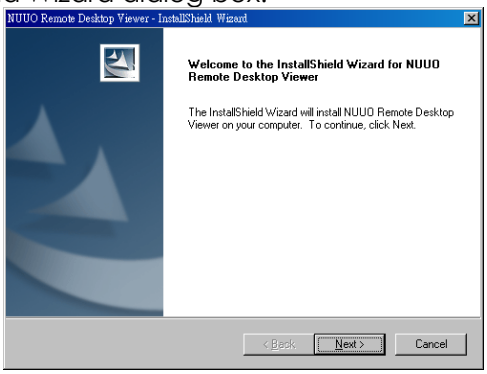
Remote Desktop Tool allow user remote to access Main Console System and setup configuration.

Step 1: Insert the Installation CD. Run **autorun.exe** from the CD-ROM directly to start the installation.

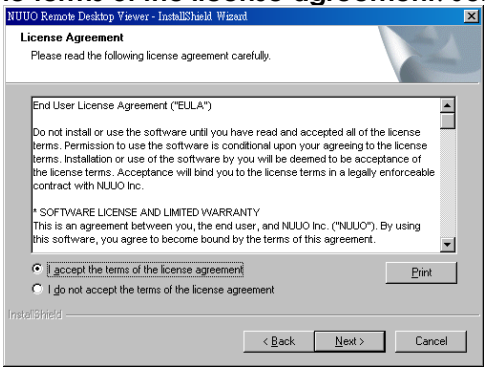


Step 2: Select **Remote Desktop Tool**.

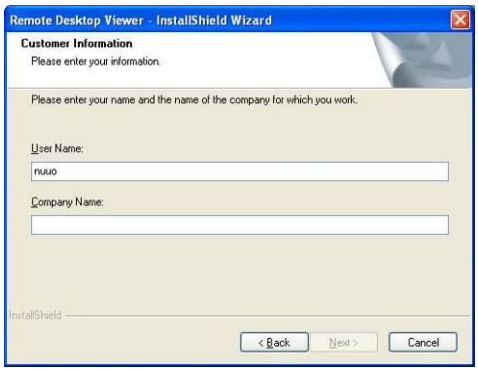
Step 3: Select **Next** in the Install Shield Wizard dialog box.



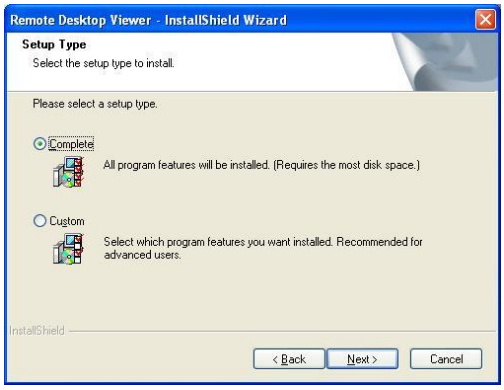
Step 4: Check the option **I accept the terms of the license agreement**. Select **Next**.



Step 5: Enter your information, select **Next**.



Step 6: Select **Complete** or **Custom** setup type.



COMPLETE SETUP TYPE

Install all program features into the default directory.

Check **Complete**, and then select **Next**. All program features will be installed. [Requires the most disk space.]

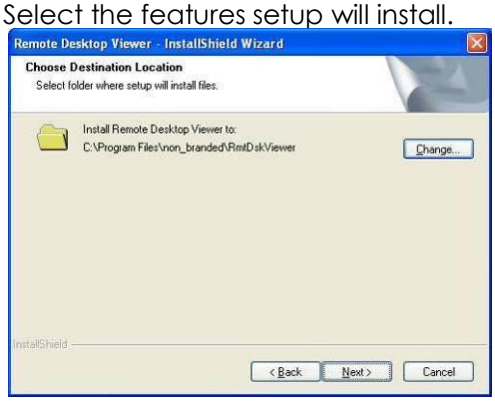
CUSTOM SETUP TYPE

Install the system to a preferred directory. Select program feature(s) to install. [Recommended for advanced users]

Check the option **Custom**, select **Next**.

Select **Change** to select folder setup will install files.

Select the features setup will install.



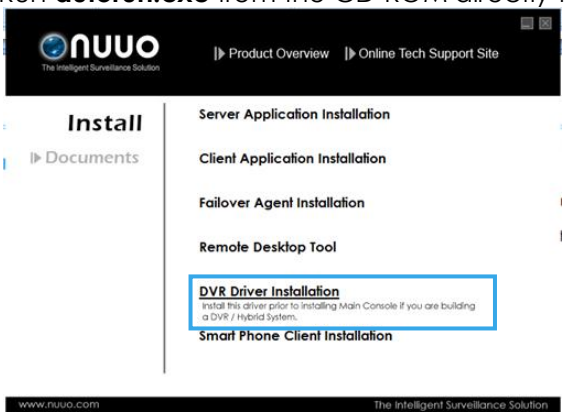
Step 7: Select **Install** to start the installation.

Step 8: Select **Finish** after installing the system completely.

DVR Driver Installation

Driver Install Tool help user to auto detect type of capture card and install corresponding drivers.

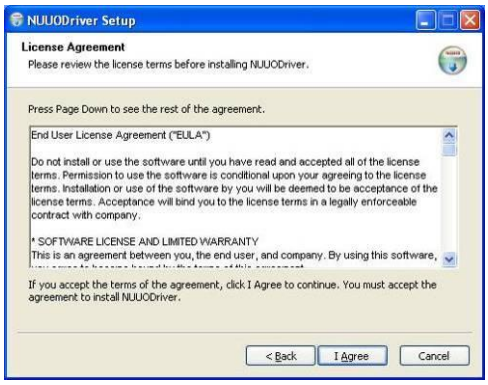
Step 1: Insert the Installation CD. Run **autorun.exe** from the CD-ROM directly to start the installation.



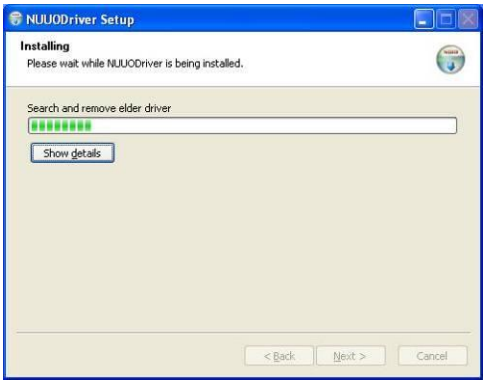
Step 2: Select **DVR Driver Installation**.

Step 3: In the NUUO Driver Setup dialog box, select **Next**.

Step 4: Check **I Agree** to continue.



Step 5: Installing NUUO driver.



Step 6: Click **Finish** after installing the system completely, and then choose to reboot now or later.

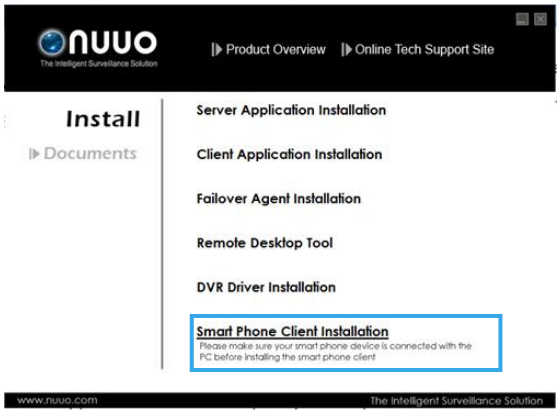
NUUODriver Setup
Completing the NUUODriver Setup Wizard
Your computer must be restarted in order to complete the installation of NUUODriver. Do you want to reboot now?
Reboot now
I want to manually reboot later
< Back
Finish
Cancel

Smart Phone Client Installation

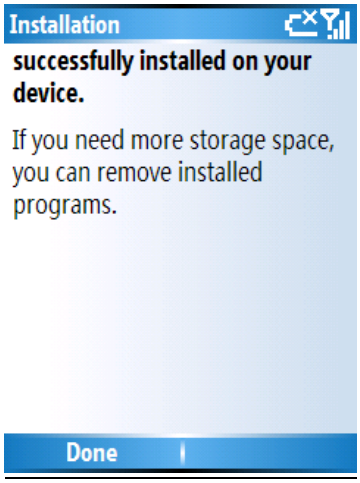
Step 1: Connect Smart Phone device to the PC.

Step 2: Insert the installation CD, click **Smart Phone Client Installation** to automatically install the client application in device.

Note: If you do not have Microsoft® ActiveSync installed, a message will appear "Cannot find ActiveSync. Please reinstall ActiveSync and then run this installation again."

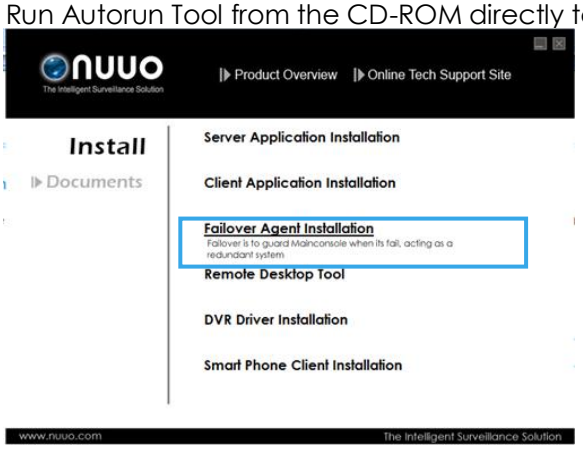


Step 3: Check the client application is installed completely in smart phone device.



Failover Agent Installation

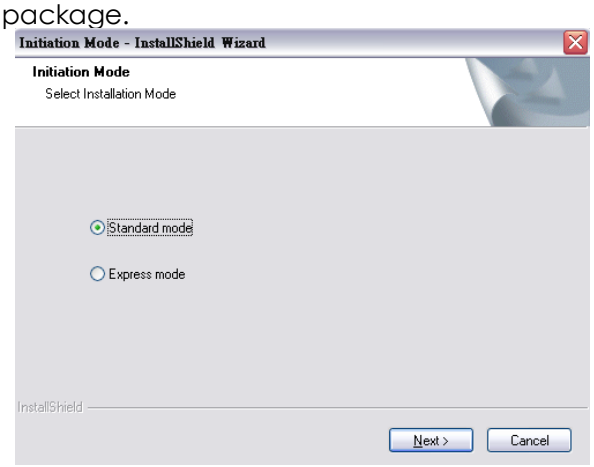
Step 1: Insert the Installation CD. Run Autorun Tool from the CD-ROM directly to start the installation.



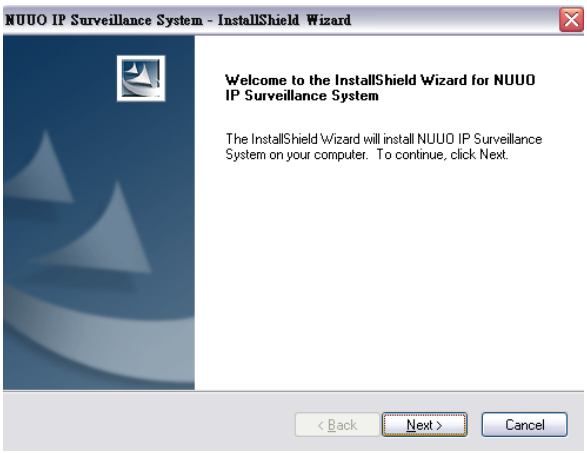
Step 2: Select "Failover Agent Installation" then click on it.

Step 3: In the InstallShield Wizard dialog box, select language and click **Next** to continuous.

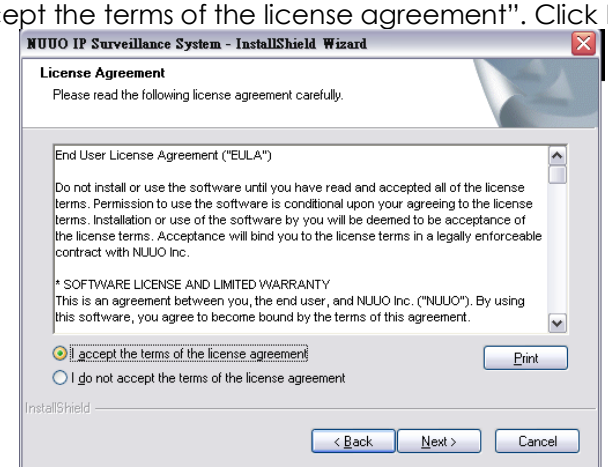
Step 4: There are 2 Installation Mode of options in "Initiation Mode" window, select one and click Next to start the installshield of Server package.



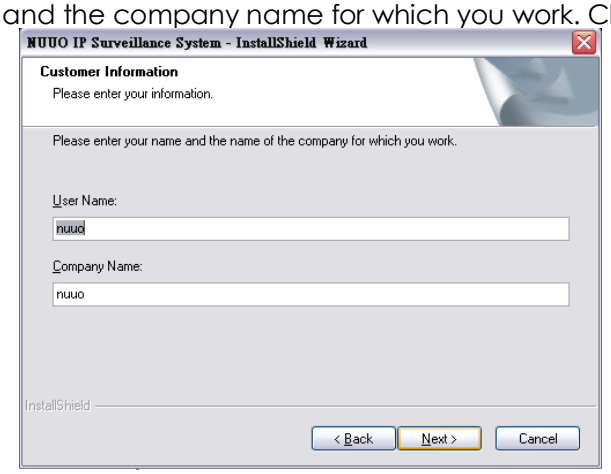
Step 5: In the InstallShield Wizard dialog box, click **Next** to continuous.



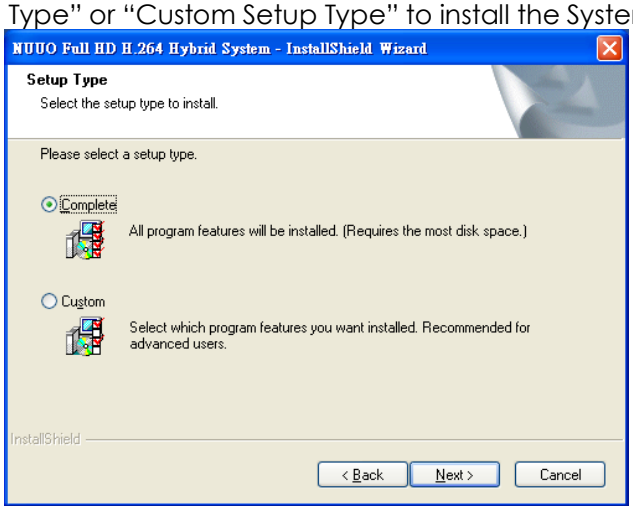
Step 6: Check the option "I accept the terms of the license agreement". Click **Next** to continuous.



Step 7: Please enter your name and the company name for which you work. Click **Next** to continuous.



Step 8: Select "Complete Setup Type" or "Custom Setup Type" to install the System.



COMPLETE SETUP TYPE

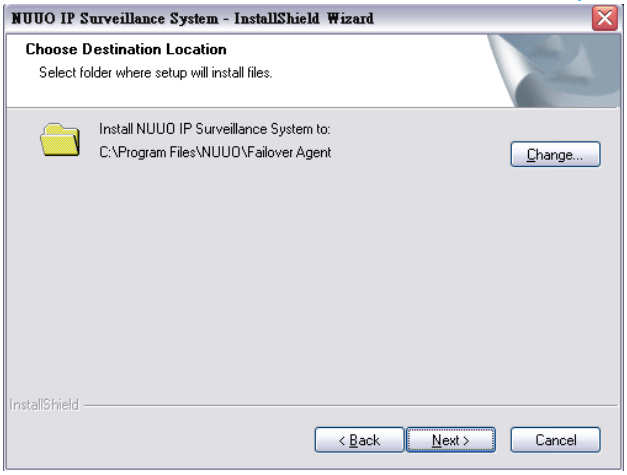
Install all program features into the default directory.

- Check the option "**Complete**", and then click "**Next**". All program features will be installed. [Require the most disk space.]

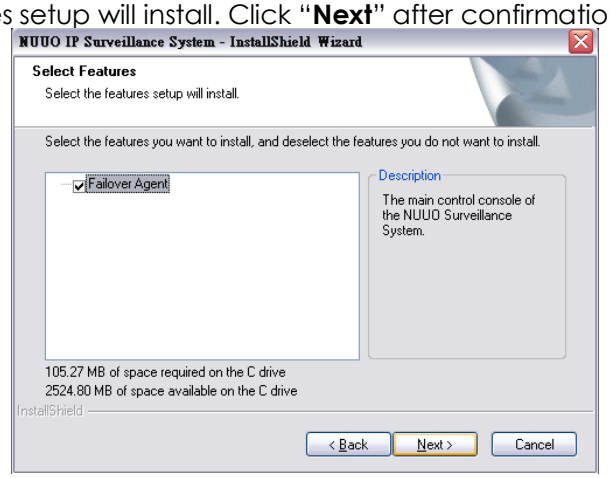
CUSTOM SETUP TYPE

Install the system to a preferred directory. Or select whichever program feature(s) to install. This is recommended for advanced users.

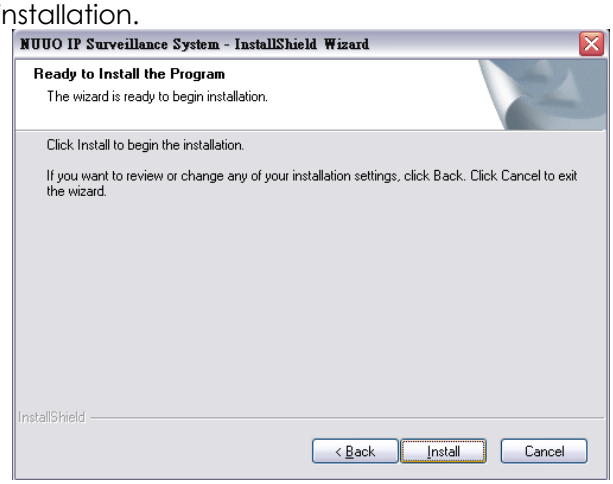
- Check the option "**Custom**", and then click "**Next**".
- Select appointed folder where setup will install files to. Click "**Change**" to modify the installation directory.



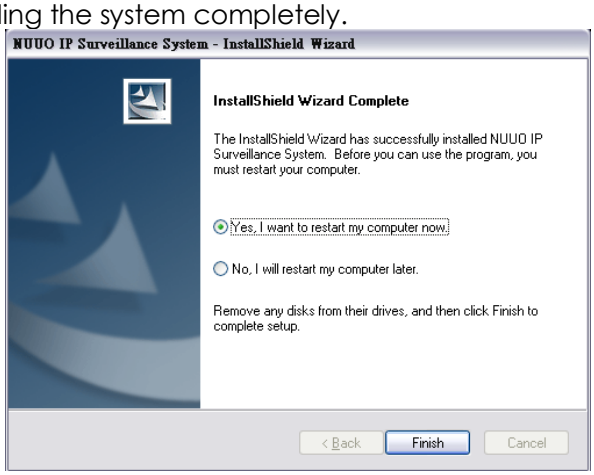
- Select the features setup will install. Click "**Next**" after confirmation.



Step 9: Click install to start the installation.

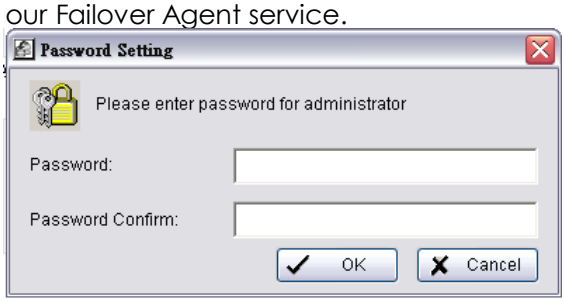


Step 10: Click Finish after installing the system completely.



Step 11: Execute the Failover Agent

Step 12: Enter the password you like into the edit box and enter again at the edit of Password Confirm. And then press "OK". Now enjoy our Failover Agent service.

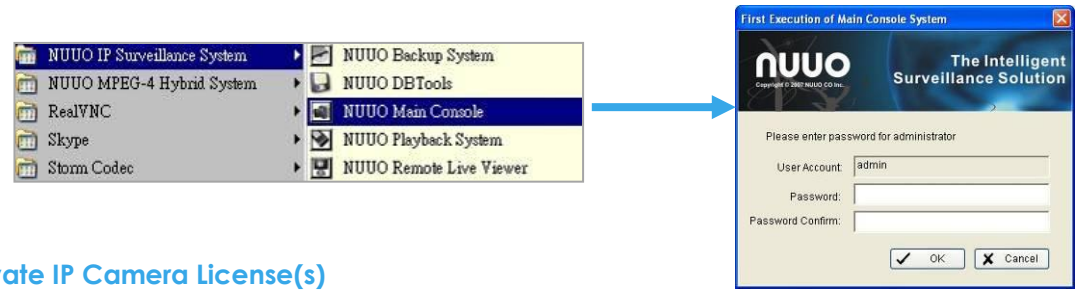


Quick Start

Execute Main Console

Step 1: Go to **Start** > **All Programs** > **NUUO Surveillance System** > **NUUO Main Console** to execute Main Console.

Step 2: Enter your own password into the edit box, enter it again for double confirm and then click on **OK**.



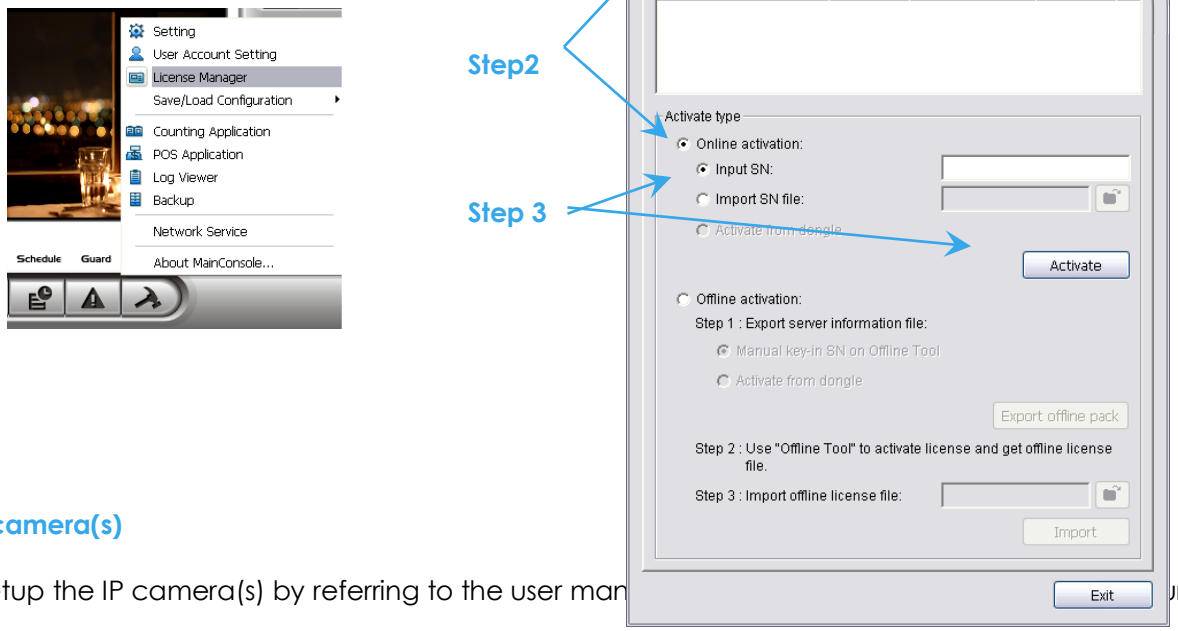
Activate IP Camera License(s)

Step 1: Open License Manager Tool in **Config** menu.

Step 2: Select **Activate** tab, check the PC in **Online** network environment.

Step 3: Insert the SN, SN file or dongle to activate license.

Step 4: After software license is activated successfully, please restart Main Console.
Note: Please refer to Utilities>>License Management Tool for advanced settings.



Install IP camera(s)

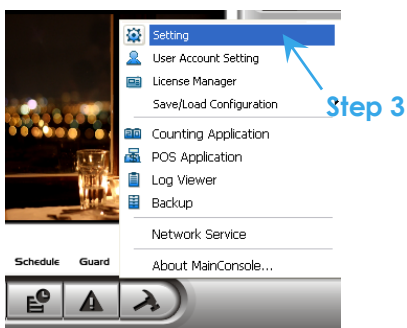
Step 1: Setup the IP camera(s) by referring to the user man urer.

Step 2: Make sure you can access this camera through IE browser.

Step 3: Add the IP camera(s) to the system by following the steps below.

Add IP camera(s)

Step 1: Execute Main Console.

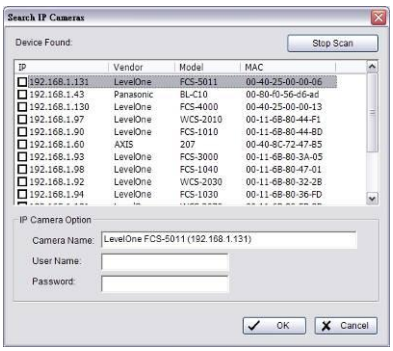


Step 2: Type in user name and password and log in to the system.

Step 3: In Main Console, go to **Config** and select **Setting** to obtain the Setting panel.

Step 4: Go to **Camera** tab.

Note: If the IP camera supports UPnP, follow step 5. Otherwise, follow step 8.

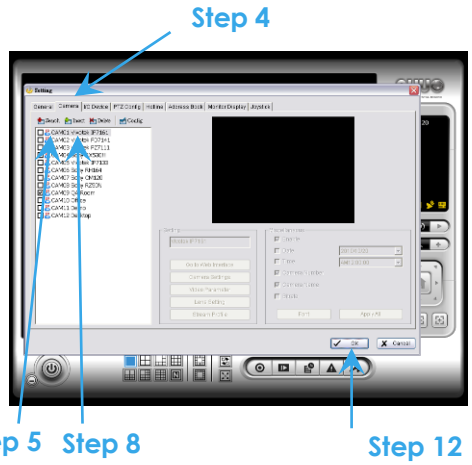


Step 5: Click on **Search** to detect IP cameras under this local area network (LAN).
Note: The Search function is available only when the IP cameras support **UPnP**.

Step 6: Select one of the IP cameras that are available and enter the username and password.

Step 7: Click **OK** to add the camera.

Step 8: Click **Insert** to insert the IP cameras.

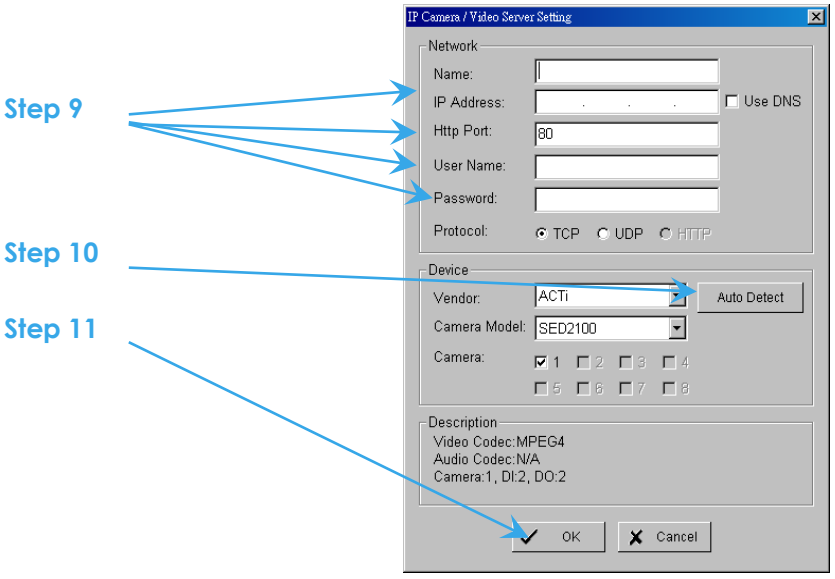


Step 9: Enter the IP address or domain name (check the **Use DNS** option), Http Port, Username, and Password.

Step 10: Select **Auto Detect**.

Step 11: Select **OK** to add the camera.

Step 12: Select **OK** to exit.



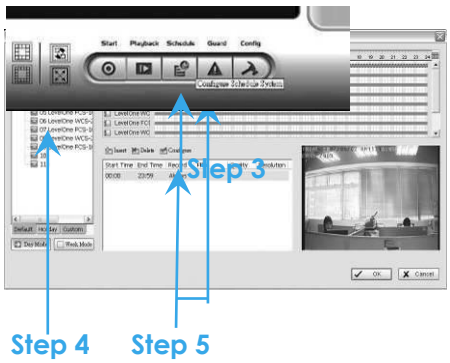
Set Schedule

Step 1: Execute Main Console.

Step 2: Type in user name and password.

Step 3: Select **Schedule**.

Step 4: The default schedule is "always record' when a camera is newly



inserted.

Step 5: Choose a camera and then select **Configure** or just double click on the schedule bar to modify the recording mode.

Step 6: Select **OK** to ute the recording schedule.

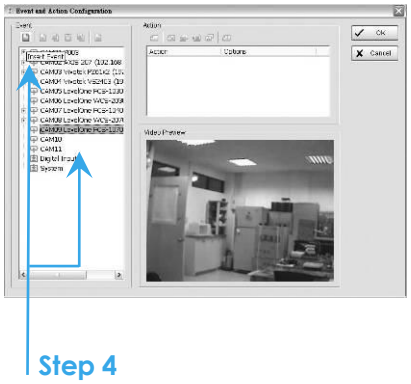
Step 7: Select **OK** to go back to Main Console.

Set Smart Guard

Step 1: Execute Main Console.

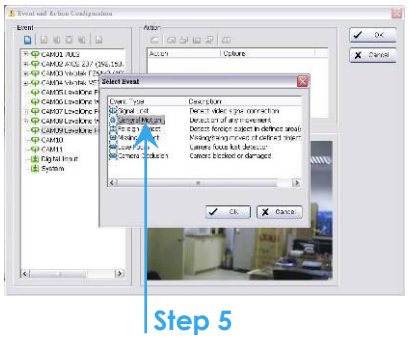
Step 2: Type in user name and password and log in the system.

Step 3: Click on **Guard**.



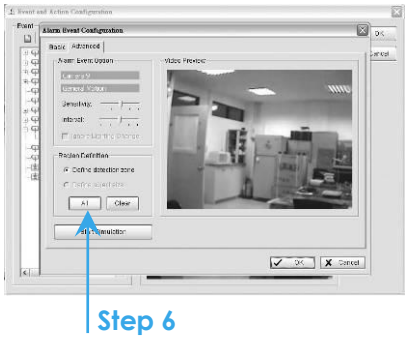
Step 4: Select a camera and then click on **Insert Event**.

Step 5: Take "General Motion" for example, select **General Motion** as the event type and then click on **OK**.



Step 6: In **Alarm Event Configuration** panel, define your own detection zone, sensitivity and interval. After that, click on OK to save the configuration.

Step 7: Click **OK** to go back to Main Console.



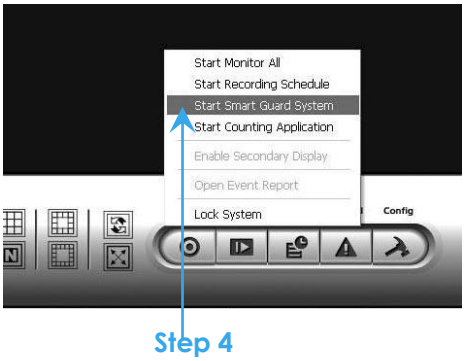
Start Recording & Smart Guard

Step 1: Execute Main Console.

Step 2: Type in user name and password and log in the system.

Step 3: Click on **Start**.

Step 4: Click on **Start Recoding Schedule** and **Start Smart Guard System** to enable the two functions.



Playback

Step 1: Execute Main Console.

Step 2: Type in user name and password and log in the system.

Step 3: Click on **Playback**.

Step 4: In Playback, click on **Date Time Search Dialog**.

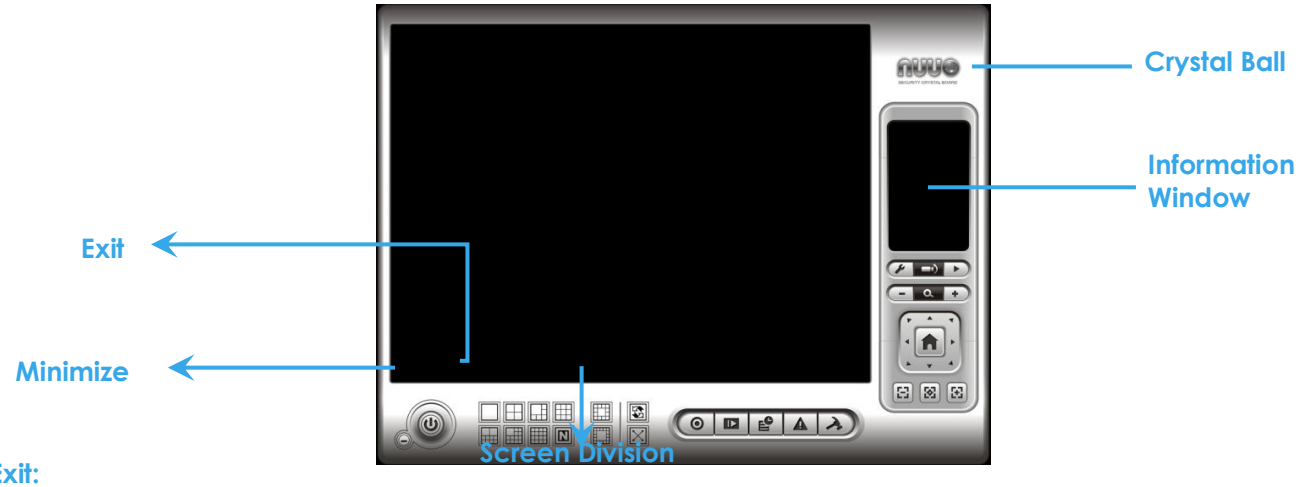
Step 5: Select a specific day from the calendar, left click on mouse and drag to select a video clip to replay; user can also select multiple channels to replay at the same time.

Step 6: The recorded files are now ready to view.

1. Main Console

This is the main operating system - to activate schedule recording, setup smart guard and configure system setting.

1.1 User Interface Overview



Exit:
Shut down the Surveillance System or log out current user.

Minimize:
Minimize the Main Console window.

Screen Division:
Allocate the sub-screen display by clicking on the desired layout icon. To switch to single camera display, double click on a particular sub-screen. Double click on the screen again to regain previous screen division layout.

Divide into 1 screen(s)	Divide into 4 screen(s)	Divide into 6 screen(s)	Divide into 9 screen(s)
Divide into 10 screen(s)	Divide into 13 screen(s)	Divide into 16 screen(s)	Divide into N screen(s)
Divide into 13 screen(s)	Divide into 17 screen(s)	Switch to Full screen	Rotate all screens

Only available under wide screen resolution(1440x900, 1680x1050, 1920x1080, 1920x1200):

Divide into 4 screen(s)	Divide into 6 screen(s)	Divide into 9 screen(s)	Divide into 12 screen(s)

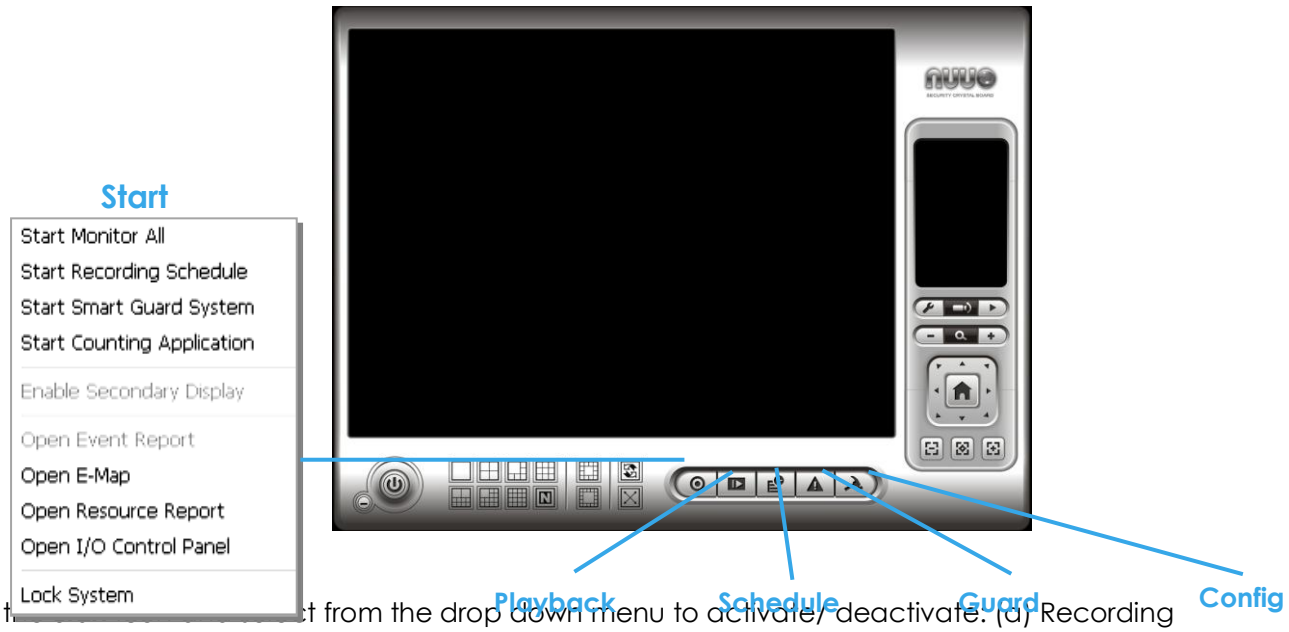
Crystal Ball
Indicate the working status of the system. Gray – at rest, Blue - recording, and Red – events detected. When the crystal ball is red, click it to open the event report then cancel the event(s).

Information Window
Display date, time, free Disk space, IP Camera Bit rate customized text and Further information like Temperature, Fan speed, System Resource and Network Utilization.

5 network service icons indicate which services are switched on/off.

	LiveView	Playback	3GPP	Desktop	CMS
Start					
Stop					

Note: To customize Information about window's setting, go to Config - Setting - General - Status Display. Select Advanced Setting for further information like Temperature, Fan speed, System Resource and Network Utilization.



Start:
Click on t[illegible]t from the drop down menu to activate/ deactivate: (a) Recording Schedule System, (b) Smart Guard System, or (c) Counting Application. Or select Start/Stop Monitor All to activate/ deactivate all the functions at once.

The Start menu also include the option to Enable Secondary Display, and open monitor tools, such as open event report to monitor smart guard event; open E-map window to monitor all devices with map indicator; open Resource Report to check system status; open IO Control panel to monitor the DI/DO status and manual triggering the DO devices; or lock the system here. See page 80 for more details about secondary display.

Note:

1. When activating any of the monitor functions of Smart Guard, system would consider the current screen status as normal. Therefore, if you want to, for example, detect Missing Object, be sure the object needed to be protected is in its position at the moment you click Start button.
2. To automatically activate the Recording Schedule System, Smart Guard System and Counting Application, at the Main Console go to Config; Setting; General; Startup to setup the auto-startup functions.
3. As for Secondary Display, open event report, open E-map window, open Resource Report and open IO controls panel, Main Console will keep the behaviors as the latest status when exiting the system.

Playback:
Click on the icon to get Playback Console. You can watch recorded video, search recorded video, adjust image of the stored data, save video/ pictures, print images, check log information and event records, and set up recording function configuration. See Playback on page 34 for detail.

Schedule:
Organize recording time schedule and setup recorder configuration. See **Schedule** on page 50 for detail.

Guard:
Add/edit type(s) of events that you want to detect; setup action(s) responding to events. See **Guard** on page 57 for detail.

Config:
Select from the drop down menu to modify the general settings, user account settings, save/ load configuration settings, open License Manager, edit counting application and metadata application, access log viewer and backup files, or setup network services. See Config on page 70 for detail.

Note: User account and License manager could only be enabled for users with administrator privilege.

1.2 PTZ Camera Control

Control the movement of PTZ cameras. With cameras that support PTZ control, you can move, zoom, patrol, adjust the focus, and set preset points of the cameras.

1.2.1 Set Preset Point / Go to Preset Point

Adjust the camera view until you are satisfied. Click on the Set icon and set up the view as the preset point 01. Adjust the camera view again and set up the preset point 02. Repeat the process until finish setting up all preset points. You can enter any names you want instead of the preset point 01, preset point 02, preset point 03…, click on the Go icon and view the result of your setting.

Note: For the speed settings of PTZ camera, go to Config – Setting - PTZ Config to setup the advanced settings.

1.2.2 Zoom

Click on the **+** and **–** signs to zoom in and zoom out the view.

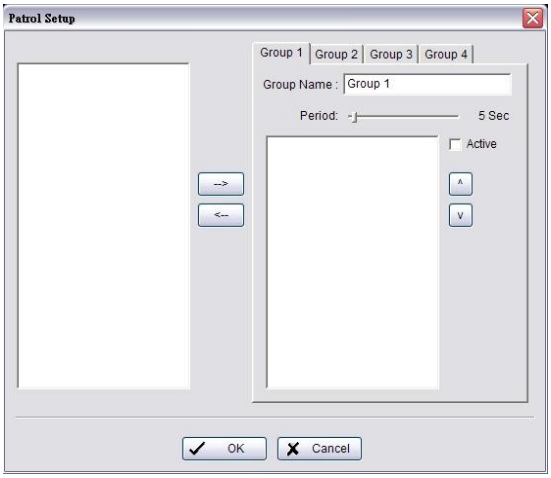
1.2.3 Focus

You can select to have the camera focused near or far. Click on **Focus Near** to focus on objects closer to the camera. Click on **Focus Far** to focus on objects further away from the camera. Click on **Auto Focus** if you want the system to decide the focus point for you.

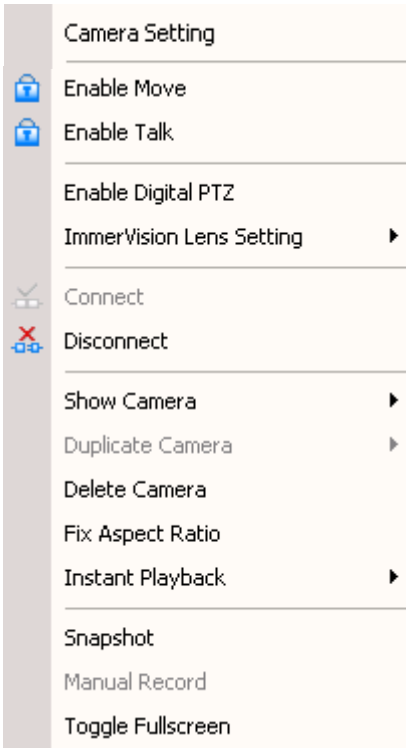
1.2.4 Patrol

Go to Set Preset Point - Set Patrol to obtain the Patrol Setup dialog. From the left window, select the cameras that you would like to have in the patrol group. Align the cameras in order in the right window and adjust the time. Rename the group name if required. After completing the setup, check the Active option, and then click OK.

Note: You can define up to four groups of auto patrol. To start or stop, click on Go to Preset Point in the Main Console, and select Start Patrol or Stop Patrol.



1.3 On Screen Menu



Right click on the camera screen and get the On Screen Menu, from which you can quickly adjust the setting of camera.

1.3.1 Camera Setting
Click to go to the camera setting page for configuration. See page 74 for details.

1.3.2 Enable Move/Area Zoom
With cameras that support PT function, click the Enable Move function to adjust the current camera's view by clicking on the display screen. To cancel this function, right click on the screen and select Disable Move. With cameras that support Area Zoom function, click the Enable Move/Area Zoom function to adjust the current camera's view by dragging a rectangle on the display screen. To cancel this function, right click on the screen and select Disable Move/Area Zoom.

1.3.3 Enable Talk
*This feature is not available under NUUO NVR Lite License.
With cameras that support two-way audio, select enable talk to utilize the function.

1.3.4 Enable Digital PTZ
To enable the PTZ functions of the camera, select the Enable digital PTZ option. Use mouse wheel or click on the + and – signs to zoom in and zoom out on the camera, or drag a rectangle to enlarge the area.
The square flashing on the video grid indicate the correspondent view ratio of the camera.

1.3.5 ImmerVision Lens Setting
*This feature is not available under NUUO NVR Lite License.
With cameras that support ImmerVision Lens. Right click on the display screen and select the mode of lens, original, PTZ mode, Quad mode and Perimeter mode. If the lens setting set as Quad, PTZ, or Perimeter mode, the Enable Digital PTZ option would become Enable ImmerVision digital PTZ.

1.3.6 Connect/ Disconnect
Right click on the display screen and select Connect/ Disconnect to modify the connecting status of the camera.

1.3.7 Show Camera
Select the camera from the Show Camera Menu to display video on selected screen.

Note:

1. The camera list of show camera menu shows as the one in the right column of monitor display panel.
2. The change of displayed screen is only applied to the current display divisions.

1.3.8 Duplicate Camera
Select the camera from the Duplicate Camera Menu to duplicate camera video to selected screen.

Note:

1. The duplicated camera would add to the camera list of duplicate camera menu shows as the one in the right column of monitor display panel.
2. The change of display list will apply to all divisions and also the right column of monitor display.

1.3.9 Delete Camera
Click on Delete Camera to remove a camera from the display screen of the display screen.

Note:

1. The camera list of delete camera menu shows as the one in the right column of monitor display panel.
2. The settings will apply to all divisions and also the right column of monitor display.

1.3.10 Fix Aspect Ratio

For some special camera resolution, user can enable Fix Aspect Ratio to view original ratio video, or disable this option to stretch 3:4 to fit window.

1.3.11 Instant Playback

*This feature is not available under NUUO NVR Lite License.

To open the Instant Playback window of the camera, select the Instant Playback option and choose the period. Refer to 1.5 Instant Playback section for detail.

1.3.12 Snapshot

Select the snapshot function to capture a specific video image frame immediately. You have the options to copy the image to clipboard or to save it. For further settings, select OSD option and metadata option to export the image with date/time, camera number/name and metadata text. If the digital PTZ function is enabled in display view, you can also decide Full Size or Selected Region as your snapshot region.

1.3.13 Manual Record

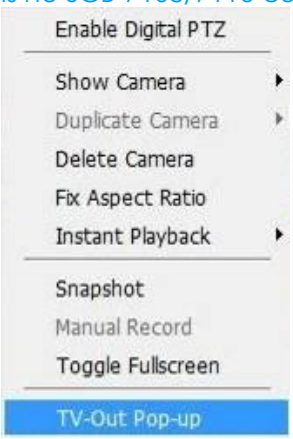
Start recording video by selecting manual record.

1.3.14 Toggle Full screen

Select to view a specific channel with full screen. Press "ESC" to go back to original window.

1.3.15 TV-Out Pop-up

* Note: This function is not available if there is no SCB-7108/7116 card installed.



Select to have the pop-up cameras on the screen notify users of the current event.

1.4 Live Display

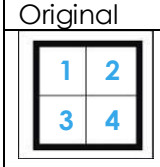
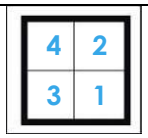
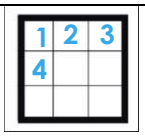
NUUO Live display is flexible; you may change channels and screen divisions. Each screen division shares the same display list but has an independent display sequence.

For example, when using Show/Duplicate/Delete Camera functions to edit your camera list, the same list will be available to all different screen divisions.

Note: This camera list is also available at the monitor display tab from the Config/Setting window. Two monitors can have two independent lists.

Action	Current division	Other division
Show camera (add cam 1)		add to first free channel
Duplicate camera (duplicate cam 2)		add to first free channel
Delete camera (delete cam 2")		remove cam 2" and keep channel free

When using a mouse to drag and drop camera channels, the sequence change will only apply to the current division.

Original	Action	Current division	Other divisions
	Drag cam 1 to cam 4		 Note change of sequence

Right click on the camera screen for the on screen menu. Here you will be able to quickly adjust settings of your camera.

1.5 Instant Playback

* Not available under NUUO NVR Lite License

NUUO Instant Playback function allows you to play the last few minutes of any live video channel. Simply right click on Live Channel and select Instant Playback to access the recorded video.

1.5.1 Instant Playback window overview

Information Window: will show correct date and time of video.
Playback Period: indicates the available play period; three options are available: 1min, 3 min, or 5 min of video.
Export Period: indicates the period of video you desire to export. Default is set as available play period.
Tool: Adjust to original video resolution button: Press to adjust the video to original video resolution.

Audio button: Press to turn on / off the audio.

Metadata button: Press to enable / disable metadata transaction data overlay.

1.5.2 The navigation of Instant Playback

The Instant Playback window allows you to browse recorded video, take snapshot images and export video with audio and metadata transaction data.

To browse recorded video:
Simply click on the timeline to view the video, or use these navigation tools to control the player:

- Play / Pause / Stop

- Slow motion / Speed up control

- Reverse [frame by frame] / Fast Forward

- Play Previous / Next minute video

To take snapshots of a video clip:
Pause the video in image which you want to export and click the snapshot button . The snapshot is displayed and can be saved or copied to clipboard.

To export recorded video:
Select export period, click the export button , and setup the options of exported video.

The default export video period is as playback period. To customize period, select start/end time and click on Cue In/Out from the drop-down list of button, the export period will be shown on the lower-left corner of the window.

Export Formats include:

- ASF – Format with best efficiency. [Recommended]
- AVI (Microsoft Video1) – Supports Windows Media Player with Vista & XP, the quality may be poorer than recorded video by transcode.
- AVI (Original Format) – faster export process, better quality on the recorded video but the export file uses VLC Player to play. (For Windows Media Player, please install additional FFDShow codec).

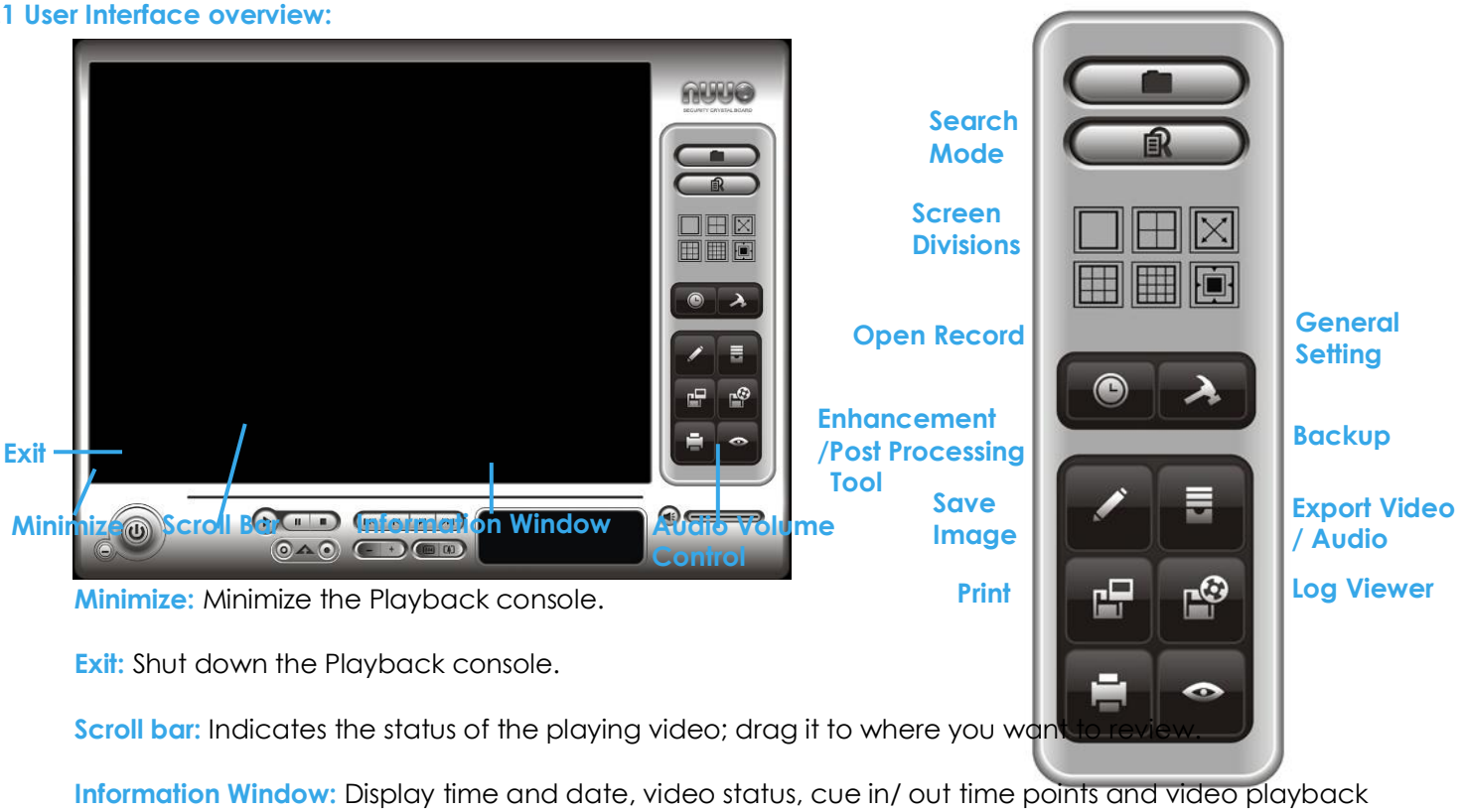
Note:

- The restrictions of AVI format.
  a. The maximum size of an AVI file is limited to 1.8 GB.
  b. Variation of frame rate will cause the resulting video to play slower or faster.
- If the selected video sequence uses multiple image resolutions (CIF, 2CIF, 4CIF, etc.) or multiple video format(MPEG-4, M-JPEG, H.264), the exported video sequence will create separate export files every time the resolution changes.

2. Playback

Watch the recorded video, view and/or search for unusual events and recorded system information.

2.1 User Interface overview:



Minimize: Minimize the Playback console.

Exit: Shut down the Playback console.

Scroll bar: Indicates the status of the playing video; drag it to where you want to review.

Information Window: Display time and date, video status, cue in/ out time points and video playback speed.

Audio Volume Control: Adjust the audio volume.

Screen Division: Allocate the sub-screen display by clicking on the desired layout icon. To switch to single camera display, double click on a particular sub-screen. Double click on the screen again to go to previous screen division layout. To view in the full screen mode, right click on the screen for the Toggle Full Screen function.

Control:

Play, **Pause** and **Stop** the video.

FWD/REV: Customize the speed on Settings panel.

Step FWD/REV: Forward/reverse frame by frame.

Cue: When playing video, click on the Cue In/ Cue Out icon at where you want to set as the starting/ ending point of a saved video clip. The Cue In and Cue Out time will be displayed on the Playback Information Window once they are set.

Speed: Control the speed of the playing video. Options from 1x, 2x, 4x, 8x, 16x, 32x to 64x.

Zoom: Zoom in and zoom out.

On screen Menu:

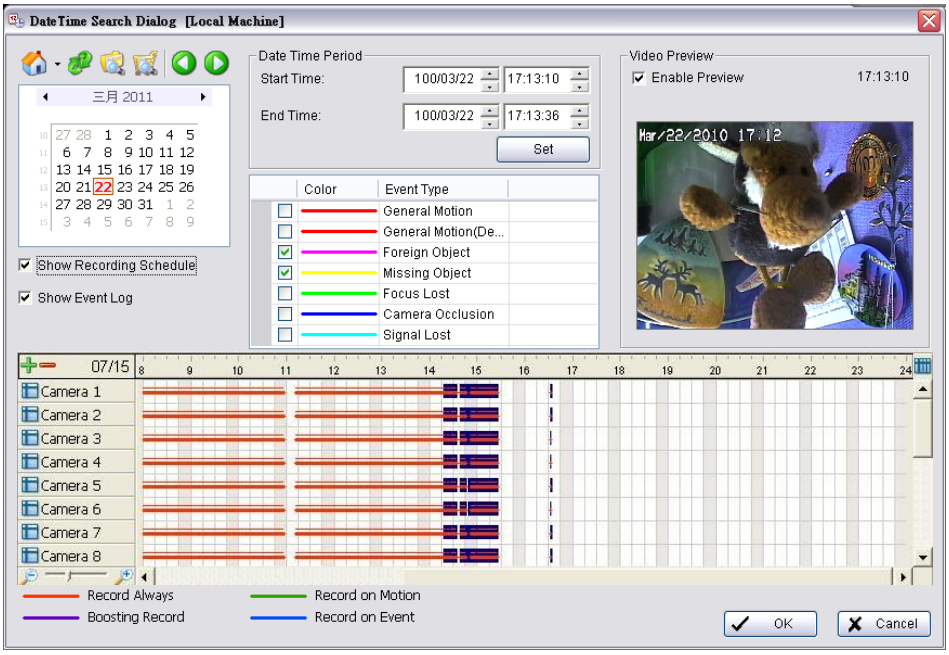
Toggle Fullscreen: Select to view cameras under full screen. Press "Esc" or right click to go back to original view.

Enable ImmerVision PTZ: Adjust PTZ in PTZ mode. (Depend on device)
ImmerVision Lens Setting: Select the mode of lens, original, PTZ mode, Quad mode and Perimeter mode. (Depend on device)

2.2 Open Record / Date Time Search Dialog

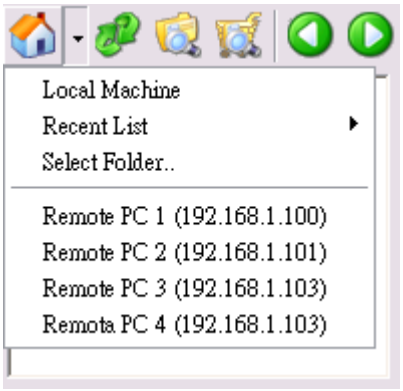
Click on the **Open Record / Date Time Search Dialog** button to access the Date-Time Panel and withdraw the video record that you want to review.

2.2.1 Date Time Panel



2.2.2 Record Display Window

The record display window shows the information of the available video clips. It may show in calendar or list control view. For further details about how to modify the record display window view, see page 47.



- Remote Server Site: Open Remote Playback Site Management to access local machine or set up remote playback server. Select Folder option to directly access recorded data folder or use Recent List to access previously recorded folders.

  Note: the Select Folder option requires password of Main Console.

- Refresh: refresh display window Log Viewer: Accesses Log Viewer Tool To access metadata Search Tool Previous Days: Show recording of previous date Next Days: To show recorded of next recording date

2.2.3 Date Time Period

Select the start and end time points that indicate the time period you would like to view.

2.2.4 Video Preview

Check the enable preview option to view the selected video.

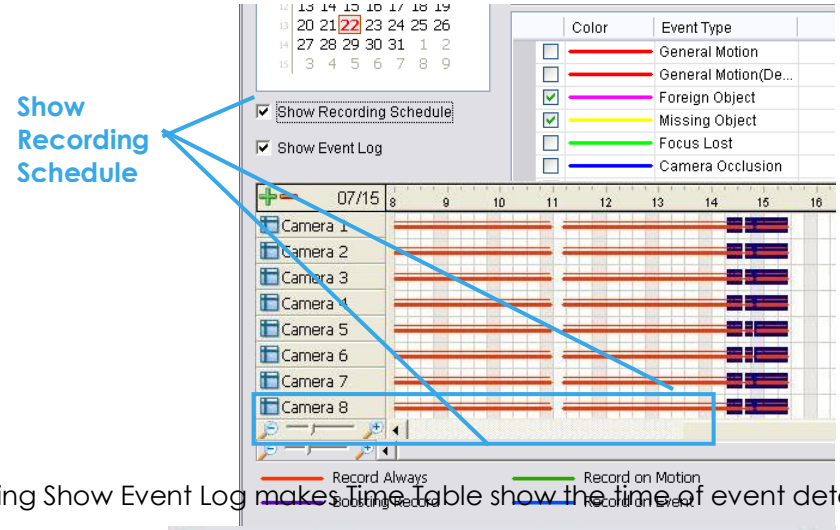
2.2.5 Event Type

There are 6 event types; see Chapter 4 - Guard for details. You may set up different colors for different event types to help you select events.

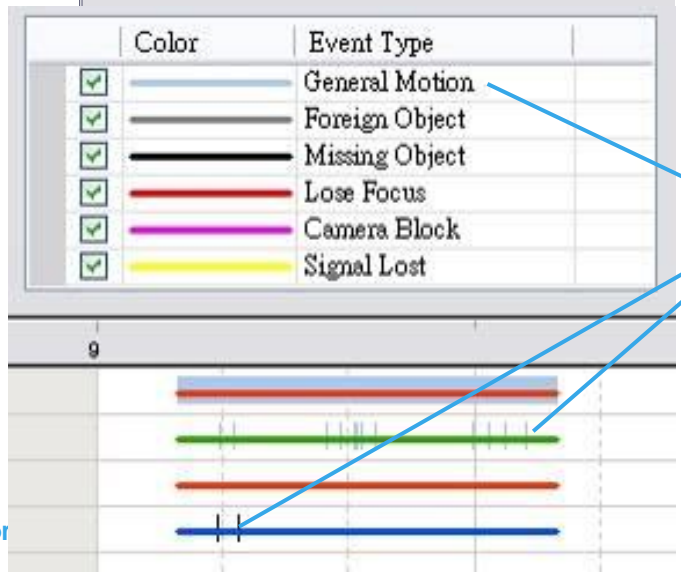
* Note: Some event types will not be available under NUUO NVR Lite License.

2.2.6 Time Table

- Utilize the icon to select all channels; also utilize the icon to deselect all channels. Finally, utilize the scale bar to modify the scale of the time table.
- Video records are displayed as a thin line on the time table. Check **Show Recording Schedule** to show the defined period for scheduled recording. It is shown as a thick line in colors according to recording mode.



- Selecting Show Event Log makes Time Table show the time of event detection like below:



2.2.7 Withdraw the Recor

Step 1: From the record display window, top left of the Date Time Panel, select the date you want to withdraw the record from. The red/purple/green/blue lines shown on the time table indicate available recorded video records.
Note: The record display window can be shown in (a) calendar view or (b) list control view. To modify the setting of the record display window, click on the Setting button at the right of the Playback Console. See page 47 for more details.

Step 2: Use color bars to differentiate event types from each other. This will help you select video clips.

Step 3: Highlight the video clip you want to review by left-clicking and dragging the time period. You may also utilize the Start Time and End Time in Date Time Period Section. In addition, modify the scale of the time table with the + and – signs on the bottom left.

Step 4: Check the **Enable Preview** option to get the preview of the video you select.

Step 5: Click the camera name to increase or decrease cameras you want to playback.

Step 6: Click **OK** when setting is complete.

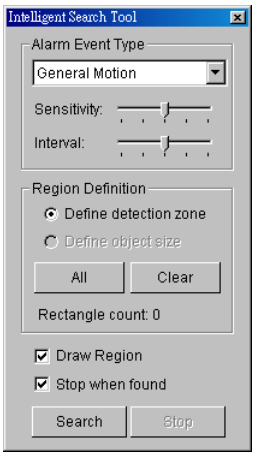
2.3 Search Mode

Click on the **Search Mode** icon to obtain the Intelligent Search Tool panel.
* This feature is not available under NUUO NVR Lite License.

- Intelligent Search Tool Panel: Click on the **Search Mode** icon to open the Intelligent Search Tool. Set up unusual events here to detect abnormality that occurred during the recorded period.

- 5 events: General Motion, Foreign Object, Missing Object, Lose Focus, and Camera Occlusion.

2.3.1 Unusual Event-General Motion



- General Motion: Detect all movements in the defined area.

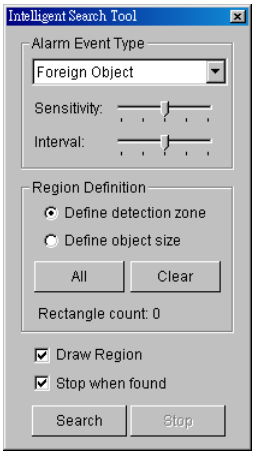
- Define Detection Zone: Left click and drag to draw a detection zone. You may define more than one zone on the screen by repeating the process.

- Sensitivity: Modify the sensitivity setting with the slider. Sliding rightwards will increase the sensitivity level, meaning the slightest movement will trigger the alarm; in contrast, sliding leftwards will reduce the sensitivity for movement detection.
  Note: Configuring an appropriate sensitivity level reduces the possibility of a false alarm. For instance, you can lower the sensitivity level to avoid the alarm being triggered by a swinging tree in the breeze.

- Interval: Move the slider control to the right to increase time interval so that the alarm will only be triggered when the movement lasts longer. Move to the left to reduce the time interval.

- Stop When Found: Check the option to have the video stop where motion was detected. Uncheck to have video continuously run to detect all events available. Results will show in a search result box. Click on the listed event in the box to jump to the point in the video where motion was detected.

2.3.2 Unusual Event-Foreign Object



- Foreign Object: Detect any additional object appearing in the defined area on the screen.

- Define detection zone: Left click and drag to draw a detection zone. The search tool will detect additional objects that appear in this zone.

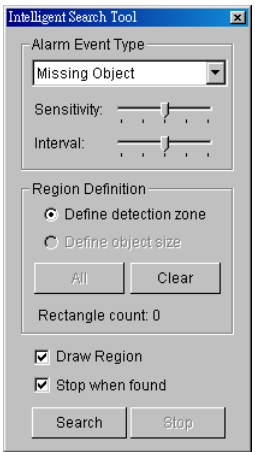
- Define object size: Click and drag to draw and define the size of a foreign object.

- Sensitivity: Modify the sensitivity setting with the slider. Sliding rightwards will increase the sensitivity level, while sliding leftwards decreases it.

- Interval: Click and move the slider control to the right to increase time interval so that the alarm will only be triggered when the object has been removed from the area for longer. Move to the left to reduce the time interval.

  Note: Setting up an appropriate Interval value will reduce the chance of false alarms. For example, you can lower the Interval to avoid the alarm being triggered by a pedestrian.

2.3.3 Unusual Event-Missing Object



- Missing Object: Detection of selected objects removed from the defined area on the screen.

- Define detection zone: Left click and drag to draw a detection zone. The search tool will detect selected objects removed in this zone.

- Sensitivity: Modify the sensitivity setting with the slider. Sliding rightwards will increase the sensitivity level, while sliding leftwards decreases it.

- Interval: Click and move the slider control to the right to increase time interval so that the alarm will only be triggered when the movement lasts longer. Move to the left to reduce the time interval.

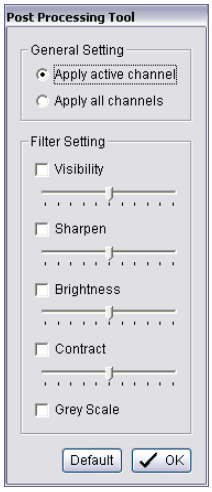
2.3.4 Unusual Event- Focus Lost / Camera Occlusion

- Focus Lost: Detection of cameras losing focus in recorded video.
- Camera Occlusion: Detection of cameras being blocked in recorded video.

2.4 Enhancement / Post Processing Tool

Click on Enhancement / Post Processing Tool to configure settings.

2.4.1 General Setting



Check the option and chose whether you want to apply the setting to all the channels or only to those currently shown on the screen.

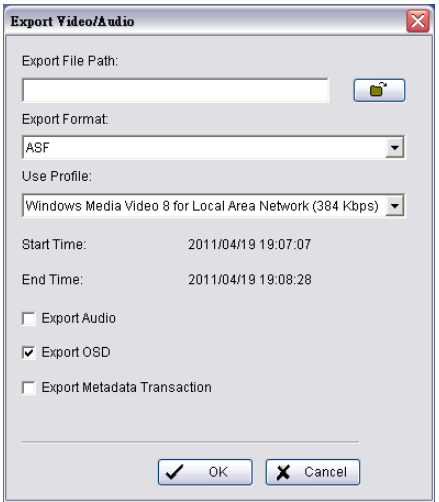
2.4.2 Filter Setting

- Visibility: adjust the gamma value of the image to enhance the image and make it cleaner.
- Sharpen: activate the function. Move the slider control to the right to sharpen the image, to the left to soften it.
- Brightness: activate the function. Move the slider control to the right to make the image brighter.
- Contrast: activate the function. Move the slider control to the right to increase contrast.
- Grey Scale: show the record in grey scale mode so the image displays in black and white.

2.5 Save Video

Step 1: Click on the display screen to choose the camera display that you want to save as a video clip.
Step 2: Set up the **cue in** and **cue out** points; the cue in and cue out time will show on the information window.

Step 3: Click on the **Save Video** button , choose the folder where you want to save the file at, enter the file name and click **SAVE**.



Step 4: Set the Export Format (ASF recommend) and set the Use Profile.

- ASF – more efficient than AVI format. [Recommended format]
- AVI (Microsoft Video 1) – Supports Windows Media Player with Vista & XP, quality may be poorer than recorded video by transcode process.

- AVI (Original Format) - Faster export process with high quality video, but the export files can only be viewed using VLC Player to play. (For Windows Media Player, please install additional FFDShow codec).

Note:

- The restrictions of AVI format:
  a. The maximum size of an AVI file is limited to 4 GB.
  b. Variation of frame rate will cause the resulting video to play slower or faster.
- If the selected video sequence uses multiple image resolutions (CIF, 2CIF, 4CIF, etc.) or multiple video format (MPEG-4, M-JPEG, H.264), the exported video sequence will create separate export files every time the resolution changes.

Step 5: Select to export (i.e. save) the recorded video with Audio, OSD and metadata, or export video only.

Step 6: Click **OK** to save the video.

2.6 Save Image

Step 1: Click on the display screen to choose the camera display from which you want to save pictures.

Step 2: Click on the **Save Image** button when the image you want is shown on the screen. You may click Pause to freeze the video, use Step Forward/ Step Backward function to find the picture(s) that you want to save.

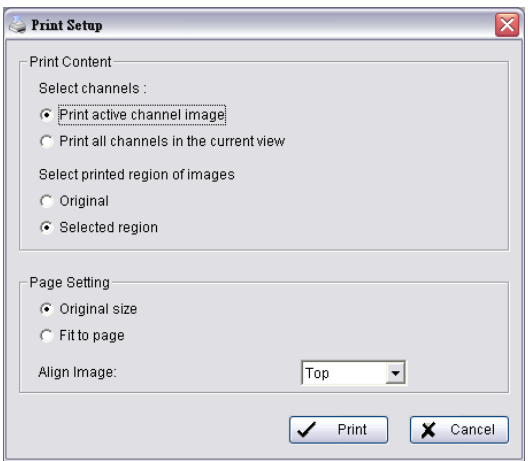
Step 3: Select OSD option and metadata option to export the image with date/time, camera number/name and metadata text. If the digital PTZ function is enabled in display view, you can also decide either Full size or Selected Region as your image region.

Step 4: You have the options to copy the image to clipboard or to save it. To save image just choose the folder and the format of image (BMP or JPEG) you prefer and then click save.
Note: You may skip step 3 by pre-setting a folder and format that you want to save the images (refer the section automatically save the image file at page 47.)

2.7 Print

Click on the **Print** button to print the current image of the video you choose.

Print Content:
Print the image from the current selected channel or all the channels shown on the screen. Select to print original view or selected region on camera.



Page Setting:
Set to print the image with original size or fit to page. Set Align image to Top, Center, or Bottom.

2.8 Backup

Compared to the Save Video function, Backup saves everything from the Playback panel, including video and log information.

You can start a full function Playback Console and load the backup files into it on any PC with Windows operating system. This means you may monitor the real time video and work on the backup files on separate computers simultaneously.

Step 1: Press the **Open Record** to select data and press **Backup** .

Step 2: You can adjust the **Start Time** and **End Time** you want to backup.

Step 3: You can adjust the Cameras you want to backup.

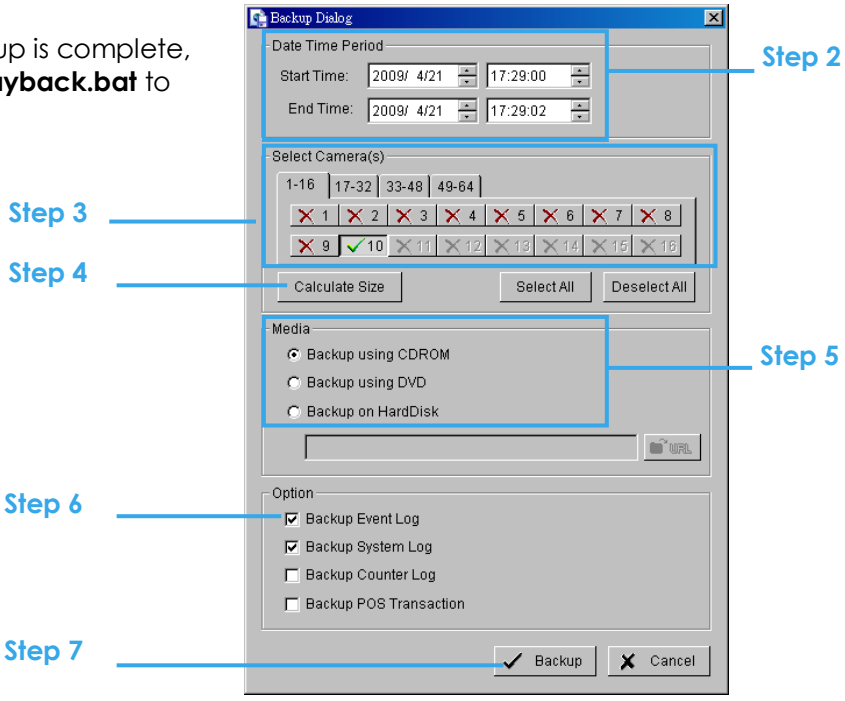
Step 4: You can calculate the size of the backup data.

Step 5: Select the directory you want to save the backup data including CDROM, DVD or Hard Disk.

Step 6: Check the log you want to backup.

Step 7: Press **Backup** to start.

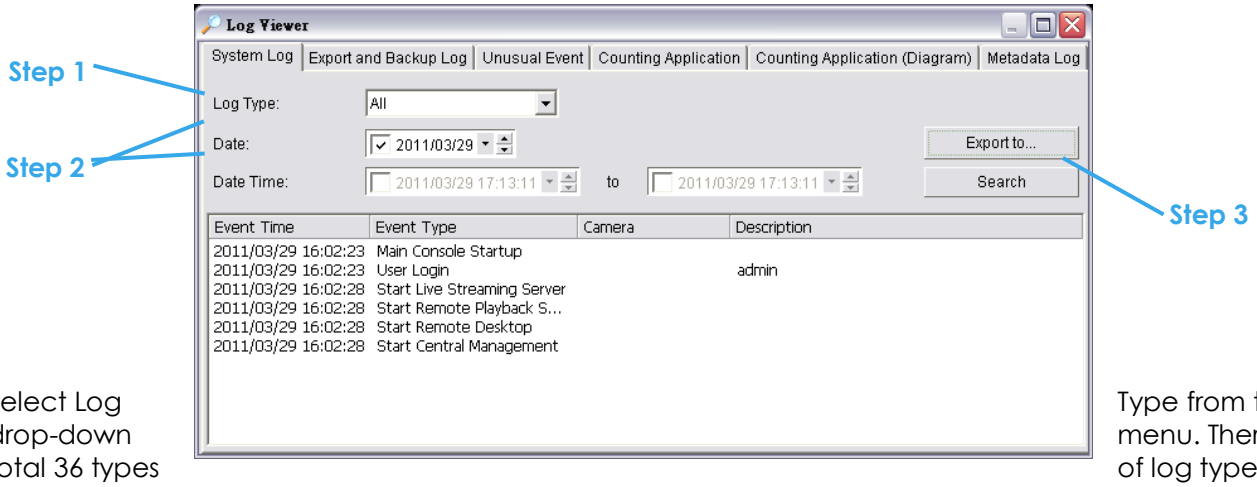
Step 7: After backup is complete, click on **playback.bat** to play.



2.9 Log Viewer

Click on the **Log Viewer** button to activate the Log Viewer dialog.

2.9.1 System Log



Select Log Type from the drop-down menu. There are in total 36 types of log types, including:

- ✓ Main Console Startup
- ✓ Main Console Shutdown
- ✓ User Login
- ✓ User Login Failed
- ✓ Start Schedule
- ✓ Stop Schedule
- ✓ Execute Recycle
- ✓ Enable Channel
- ✓ Disable Channel
- ✓ Start Smart Guard
- ✓ Stop Smart Guard
- ✓ Modify Smart Guard
- ✓ Modify Schedule
- ✓ Modify Configuration
- ✓ Start Live Streaming Server
- ✓ Stop Live Streaming Server
- ✓ Modify Live Streaming Server
- ✓ Start Remote Playback Server
- ✓ Stop Remote Playback Server
- ✓ Modify Remote Playback Server
- ✓ IP Camera Connection Lost
- ✓ IP Camera Connection Regained
- ✓ IP Camera Parameter Changed
- ✓ Auto Restart Windows
- ✓ Modify Metadata Setting
- ✓ Metadata Connection Lost
- ✓ Modify E-Map
- ✓ Start Remote Desktop
- ✓ Stop Remote Desktop
- ✓ Modify Remote Desktop
- ✓ Start Central Management
- ✓ Stop Central Management
- ✓ Modify Central Management
- ✓ Start Counting Application
- ✓ Stop Counting Application
- ✓ IP Camera Connection Regained
- ✓ Sync. Microsoft Active Directory User
- ✓ IP Camera Parameter Changed

* Note: Some event types will not be available under NUUO NVR Lite License.

Step1: Choose the type of event you want to check or select "All" from the drop-down menu for all types of events.

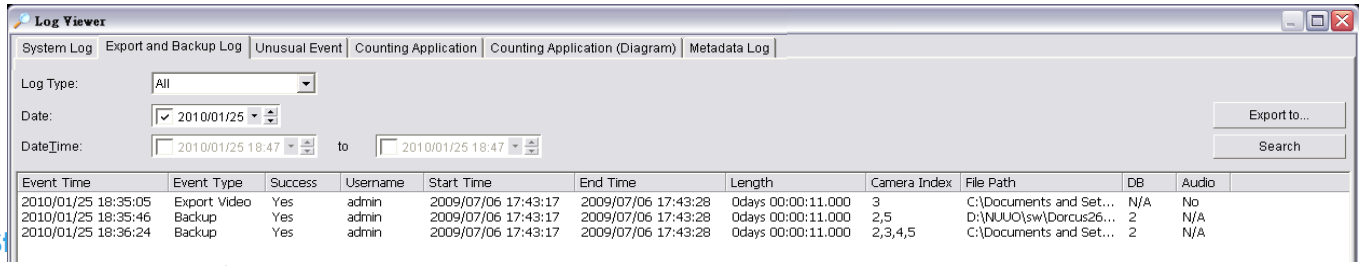
Step 2: View the events that happened on a particular date or during a given time period by selecting search period.
For a particular date: check the **Date** box and indicate the date.
For a period: check the **DateTime** and then enter specific date and time.

Step 3: Click **Search**.

2.9.2 Export and Backup Log

View the Export and Backup Log history that had been operated by local or remote user.

Step1: Choose the type of event you want to check or select **All** from the drop-down menu for all types of events.



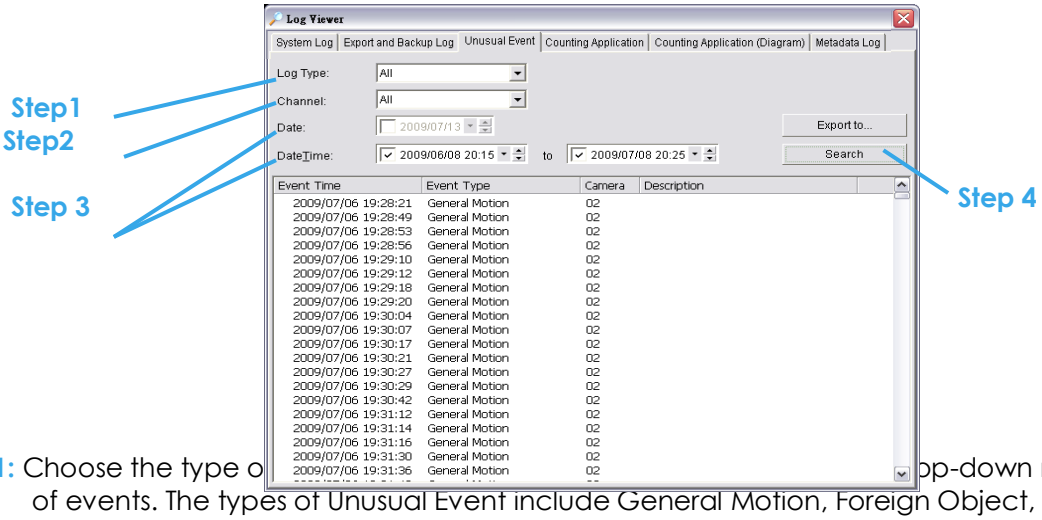
St

search period.
For a particular data: check the **Date** box right and indicate the date.
For a period: check the **DateTime** and then enter the date and time.

Step 3: Click **Search**

2.9.3 Unusual Event

View the unusual event history that had been detected by the Smart Guard System.



Step1: Choose the type o op-down menu to view all types of events. The types of Unusual Event include General Motion, Foreign Object, Missing Object, Focus Lost, Camera Occlusion, Signal Lost, Disk Space Exhausted, System Health Unusual, Digital Input Triggered and General Motion (device).
* Note: Some event types will not be available under NUUO NVR Lite License.

Step 2: Choose the camera channel you wish to view or select **All** for all channels available.

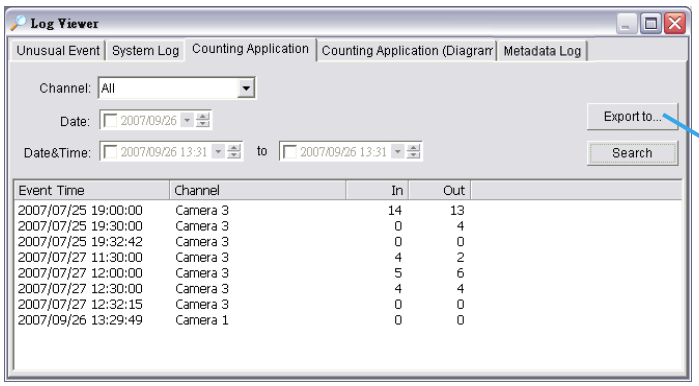
Step 3: View the events that happened on a particular date or during a given time period by selecting search period.
For a particular date: check the **Date** box right and indicate the date.
For a period**:** check the **DateTime** and enter the specific date and time.

Step 4: Click **Search**.
Note: When working with a video record,

1. Log Viewer will search for Unusual Event in the video record in Date & Time mode, starting from the beginning to the end of the record, which is the default setting of the system.
2. A link (🔗) will appear next to each event time where video is available. By clicking on the link, the video will jump to the point where the unusual event takes place.

2.9.4 Counting Application

Display the history of Counting Application during a given time period.
* This feature is not available under NUUO NVR Lite License.



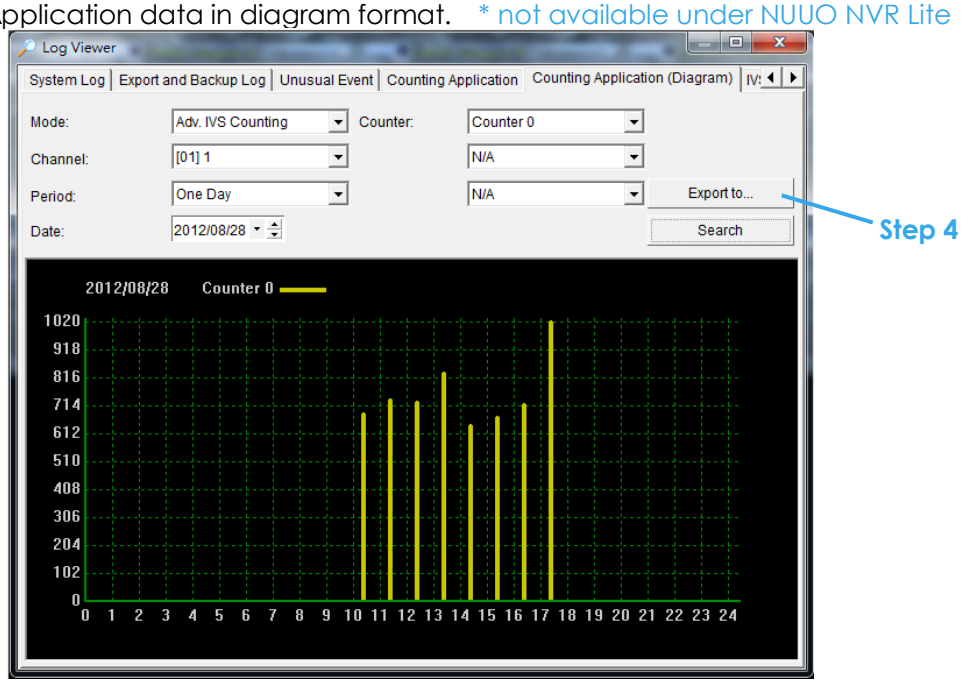
Step1: Select the channel you want to check or select **All** from the drop-down menu for all channels.

Step 2: Select search period. View the events that happened on a particular date or during a given time period by selecting search period.
For a particular date: check the **Date** box right and indicate the date.
For a period: check the **DateTime** and then enter the date and time.

Step 3: Click **Search**.
Step 4: Press the button **Export to**.
Step 5: Type the file name and choose the file format (.xls or .txt).

2.9.5 Counting Application (Diagram)

Display the Counting Application data in diagram format. * not available under NUUO NVR Lite License



Step1: Select the channel you want to check or select **All** from the drop-down menu for all channels.

Step 2: From the drop-down menu, set up how you would like the diagram to be displayed. You have the options of one day, one month, or one year.

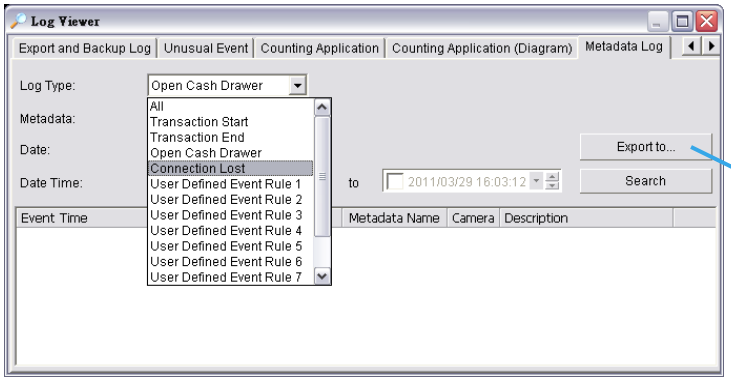
Step 3: Select a specific date to make it the start point of the diagram.

Step 4: Click **Search**.
Step 5: Press the button **Export to**.
Step 6: Type the file name and the file will save as BMP files.

2.9.6 Metadata Log

View Metadata Log history detected by the Smart Guard System.

* not available under NUUO NVR Lite License



Step1: Choose the type of events you wish to view or select **All** from the drop-down menu to view all types of events. The types of Unusual Event include Transaction Start, Transaction End, Open Cash Register, Connection Lost, and Special User Defined Event. Please refer to the User manual of Metadata Plugins for detail.

Step 2: Choose the camera channel you wish to view or select **All** for all the channels available.

Step 3: View the events that happened on a particular date or during a given time period by selecting search period.
For a particular date: check the **Date** box and indicate the date.
For a period: check the **DateTime** and then enter a specific date and time.

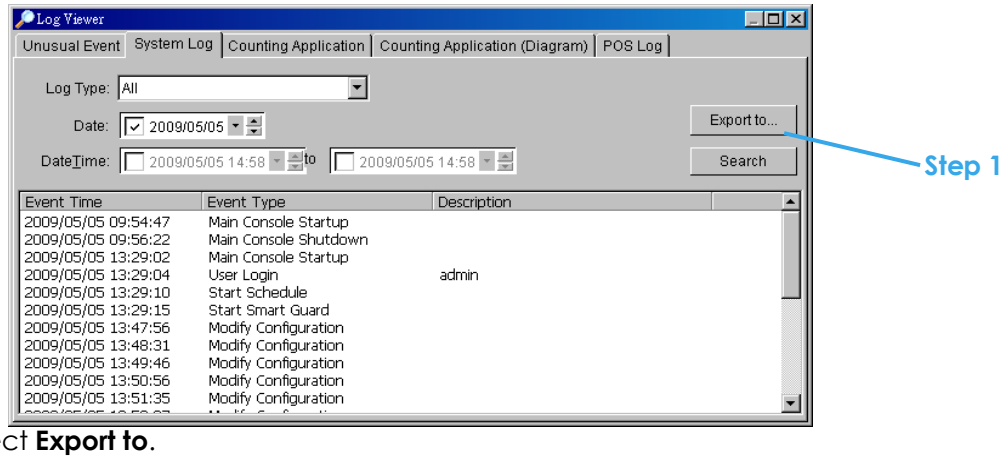
Step 4: Click **Search**. A link (🔗) will appear next to each event time where video is available.
By clicking on the link, the video will jump to the point where the unusual event takes place.

Step 5: Press the button **Export to**.

Step 6: Type the file name and choose the file format (.xls or .txt).

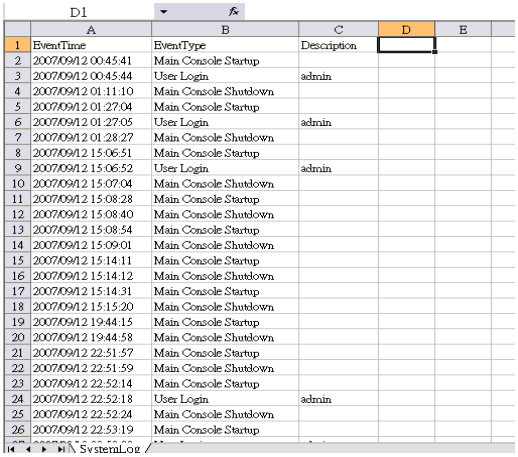
2.9.7 Export

You may export the file to .xls or .txt file



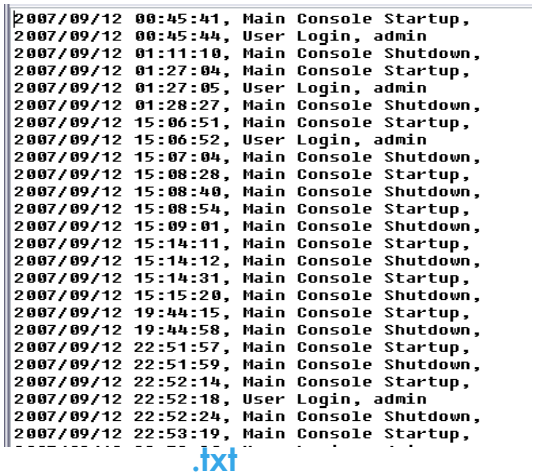
Step1: Select **Export to**.

Step2: Type the file name and choose the file format, .xls or .txt.



	A	B	C	D	E
1	EventTime	EventType	Description		
2	2007/09/12 00:45:41	Main Console Startup			
3	2007/09/12 00:45:44	User Login	admin		
4	2007/09/12 01:11:10	Main Console Shutdown			
5	2007/09/12 01:27:04	Main Console Startup			
6	2007/09/12 01:27:05	User Login	admin		
7	2007/09/12 01:28:27	Main Console Shutdown			
8	2007/09/12 15:06:51	Main Console Startup			
9	2007/09/12 15:06:52	User Login	admin		
10	2007/09/12 15:07:04	Main Console Shutdown			
11	2007/09/12 15:08:28	Main Console Startup			
12	2007/09/12 15:08:40	Main Console Shutdown			
13	2007/09/12 15:08:54	Main Console Startup			
14	2007/09/12 15:09:01	Main Console Shutdown			
15	2007/09/12 15:14:11	Main Console Startup			
16	2007/09/12 15:14:12	Main Console Shutdown			
17	2007/09/12 15:14:31	Main Console Startup			
18	2007/09/12 15:15:20	Main Console Shutdown			
19	2007/09/12 19:44:15	Main Console Startup			
20	2007/09/12 19:44:58	Main Console Shutdown			
21	2007/09/12 22:51:57	Main Console Startup			
22	2007/09/12 22:51:59	Main Console Shutdown			
23	2007/09/12 22:52:14	Main Console Startup			
24	2007/09/12 22:52:18	User Login	admin		
25	2007/09/12 22:52:24	Main Console Shutdown			
26	2007/09/12 22:53:19	Main Console Startup			

.xls

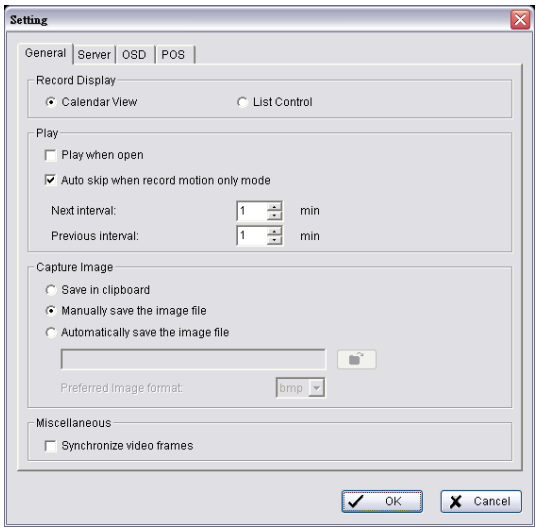


```
2007/09/12 00:45:41, Main Console Startup,
2007/09/12 00:45:44, User Login, admin
2007/09/12 01:11:10, Main Console Shutdown,
2007/09/12 01:27:04, Main Console Startup,
2007/09/12 01:27:05, User Login, admin
2007/09/12 01:28:27, Main Console Shutdown,
2007/09/12 15:06:51, Main Console Startup,
2007/09/12 15:06:52, User Login, admin
2007/09/12 15:07:04, Main Console Shutdown,
2007/09/12 15:08:28, Main Console Startup,
2007/09/12 15:08:40, Main Console Shutdown,
2007/09/12 15:08:54, Main Console Startup,
2007/09/12 15:09:01, Main Console Shutdown,
2007/09/12 15:14:11, Main Console Startup,
2007/09/12 15:14:12, Main Console Shutdown,
2007/09/12 15:14:31, Main Console Startup,
2007/09/12 15:15:20, Main Console Shutdown,
2007/09/12 19:44:15, Main Console Startup,
2007/09/12 19:44:58, Main Console Shutdown,
2007/09/12 22:51:57, Main Console Startup,
2007/09/12 22:51:59, Main Console Shutdown,
2007/09/12 22:52:14, Main Console Startup,
2007/09/12 22:52:18, User Login, admin
2007/09/12 22:52:24, Main Console Shutdown,
2007/09/12 22:53:19, Main Console Startup,
```

.txt

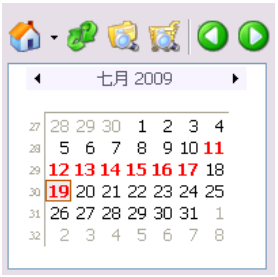
2.10 Setting

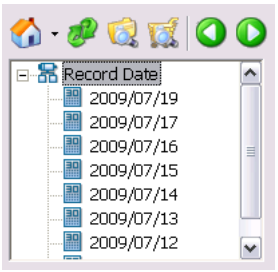
Click on the **General Setting** button and go to Setting for system configurations.



Record Display setting:

- Calendar View: Choose to display records under calendar view.
- List Control: Choose to display records under checklist.





Play setting:

- Play when open: Check the option and set the system to start playing the video clip every time a record is withdrawn.
- Auto skip when record motion only mode: Check the option to set up the system to automatically skip to the points where there were motions recorded.
- Next interval: Set the interval with which the video goes forward when you click on the "Next" icon on the control panel.
- Previous interval: Set the interval with which the video goes backward when you click on the "Previous" icon on the control panel.

Capture Image setting: Sets how you want to save the image.

- Save in clipboard: The image will be saved in the clipboard; image will be available to paste elsewhere.
- Manually save the image file: You can manually select where you want to save the image. Name the saved file, and choose the file format you want to save as.
- Automatically save the image file: By pre-setting a path/URL and the image format, the system will automatically save the image accordingly when you click the Save button in the control panel.

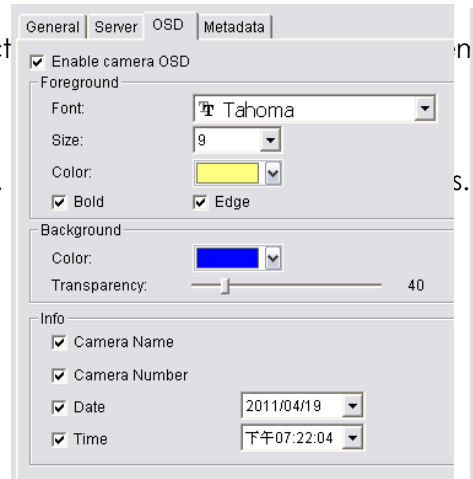
Miscellaneous

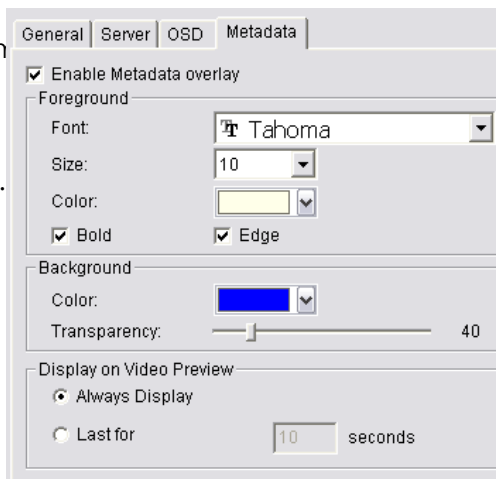
- Synchronize video frames: Select high CPU loading.

Server Setting

Remote Playback Site Management.

OSD Setting





Enable Camera OSD to display video information on recorded video. Information includes camera name, camera number, date and time. User can also set up OSD font; include the font, size, font color and any font effects desired.

Metadata Overlay Setting

* not available under NUUO NVR Lite License

Enable metadata overlay to adjust Font, Size, Color, Bold, Edge in "Foreground" section, color and transparency in "Background" section, and then adjust display settings in "Display on Video Preview".

2.11 Remote Server

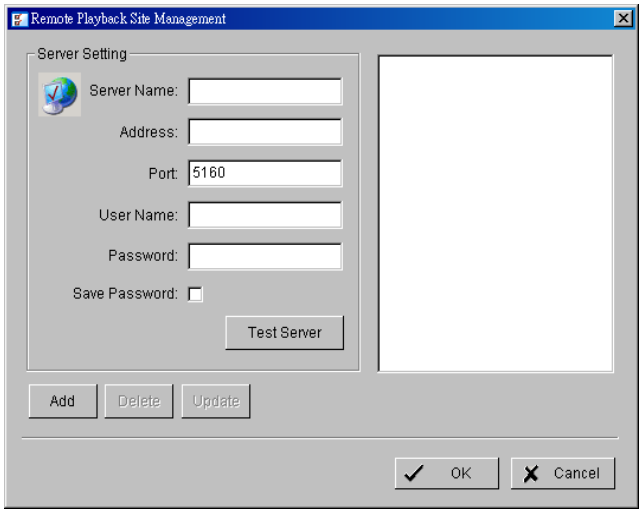
2.11.1 Add Remote Playback Site

Press the Remote Server Icon or go to setting – server to config remote playback site management to add and setup remote playback sites.

Step 1: Enter the IP address or DNS, Port, Username, and Password.

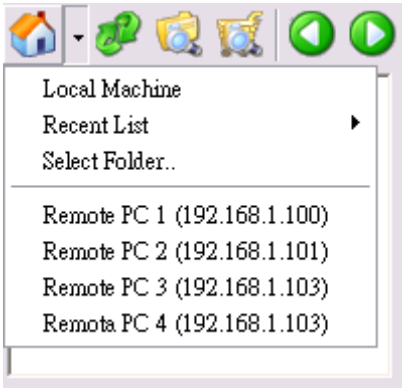
Step 2: Click **Add** to add the server.

Step 3: Click **OK** to exit the "Settings" panel.

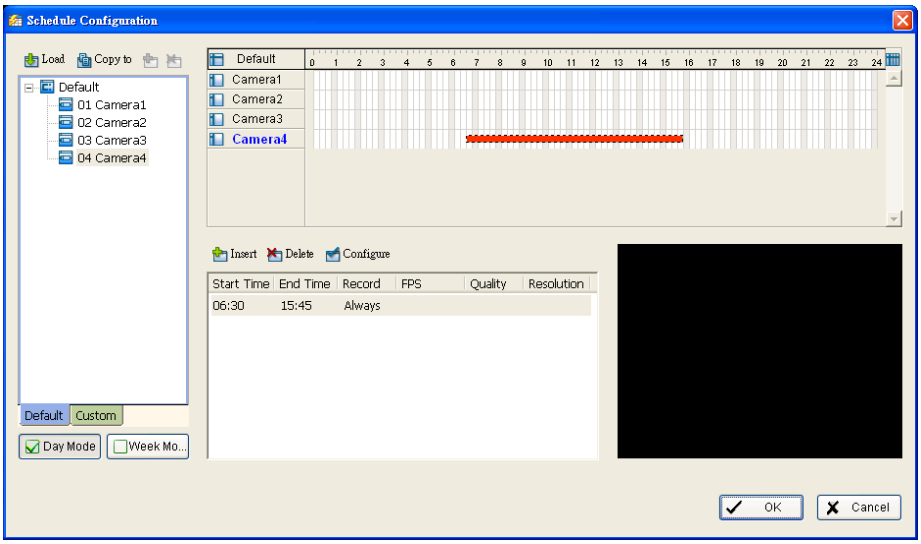


2.11.2 Access Remote Playback Site

Go to Date Time Panel and click on the icon on the top of the display window to access the Remote Playback Site

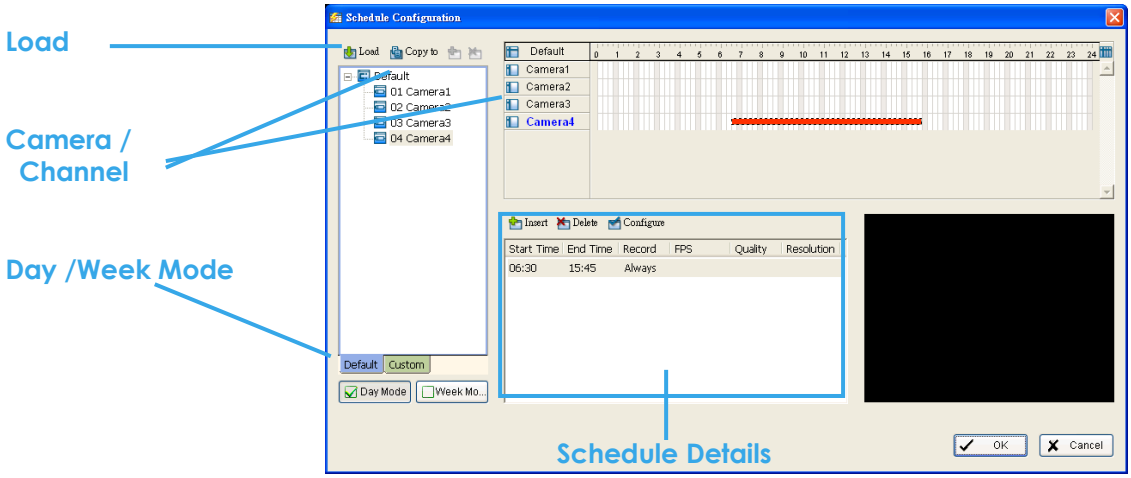


3. Schedule



Click on the Schedule icon on the Main Console and set up the time duration for video recording on the schedule configuration panel.

3.1 Day / week Mode



Day Mode: Schedule the cameras to turn the recorder on and off at the same time every day according to your setting.

Week Mode: Allows you to schedule each camera for a different day of the week, additionally, you may assign extra holidays in the "Week" mode

Schedule Details: An outline of start time, end time, Record mode, frame rate, quality and resolution. Please note these values refer to configured settings. Actual performance may vary according to camera and hardware settings.

To setup the time schedule for each camera, you may
1. "Load" the preset modes or
2. "Insert" a new schedule manually or
3. "Copy to" other cameras after manual setup.

3.1.1 Load Preset Modes

The system provides six modes to quickly setup recording schedule. Simply click on the Load for the drop-down menu.

Refer to the below tables for the definitions of each mode in each series.

IP+ series (IP camera)

Mode	Format	Time	Record	FPS	Quality	Resolution
Regular	M-JPEG	0:00-24:00	Always	Max	Max	Max
	MPEG-4			Max		
Office	M-JPEG	8:00-20:00	Always	Max	Max	Max
	MPEG-4			Max		
Shop	M-JPEG	10:00-22:00	Always	Max	Max	Max
	MPEG-4			Max		
Highly Secure	M-JPEG	0:00-24:00	Always	Max	Max	Max
	MPEG-4			Max		
Disk Saving	M-JPEG	0:00-24:00	Motion	10	Max	Max
	MPEG-4			i-frame		
Minor	M-JPEG	0:00-24:00	Motion	5	Max	Max
	MPEG-4			i-frame		

The Max indicates settings are same as camera settings in the config>setting>camera>camera parameter panel.

SCB-1000, SCB-3000 series (Analog camera)

Mode	Format	Time	Record	FPS	Quality	Resolution
Regular	MPEG-4	0:00-24:00	Always	30	Normal	CIF

Office	MPEG-4	8:00-20:00	Always	30	Normal	CIF
Shop	MPEG-4	10:00-22:00	Always	30	Normal	CIF
Highly Secure	MPEG-4	0:00-24:00	Always	30	Highest	Max
Disk Saving	MPEG-4	0:00-24:00	Motion	30	Normal	CIF
Minor	MPEG-4	0:00-24:00	Motion	15	Low	CIF

SCB-6000S series (Analog camera)

Mode	Format	Time	Record	FPS	Quality	Resolution
Regular	H.264	0:00-24:00	Always	7.5	Normal	D1
Office	H.264	8:00-20:00	Always	7.5	Normal	D1
Shop	H.264	10:00-22:00	Always	7.5	Normal	D1
Highly Secure	H.264	0:00-24:00	Always	7.5	Highest	D1
Disk Saving	H.264	0:00-24:00	Motion	30	Normal	CIF
Minor	H.264	0:00-24:00	Motion	15	Low	CIF

SCB-7000S series (Analog camera)

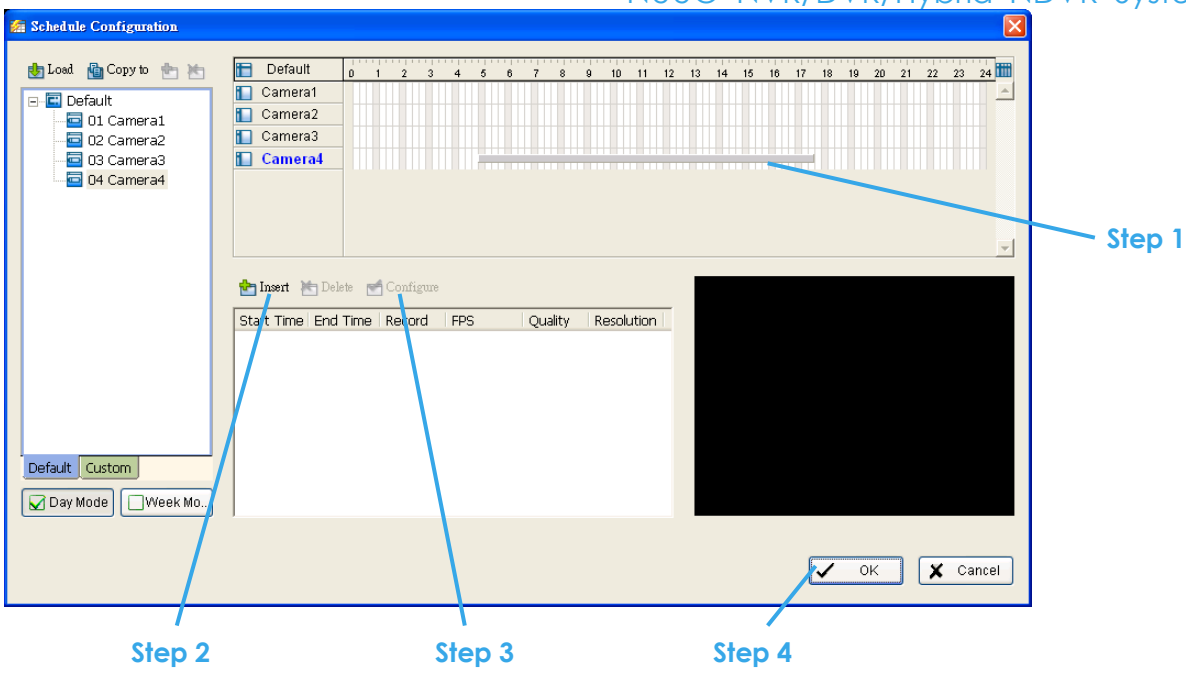
Mode	Format	Time	Record	FPS	Quality	Resolution
Regular	H.264	0:00-24:00	Always	30	Normal	D1
Office	H.264	8:00-20:00	Always	30	Normal	D1
Shop	H.264	10:00-22:00	Always	30	Normal	D1
Highly Secure	H.264	0:00-24:00	Always	30	Highest	D1
Disk Saving	H.264	0:00-24:00	Motion	30	Normal	CIF
Minor	H.264	0:00-24:00	Motion	15	Low	CIF

SCB-8000HD series (HDcctv camera)

Mode	Format	Time	Record	FPS	Quality	Resolution
Regular	H.264	0:00-24:00	Always	30	Normal	1080P/720P
Office	H.264	8:00-20:00	Always	30	Normal	1080P/720P
Shop	H.264	10:00-22:00	Always	30	Normal	1080P/720P
Highly Secure	H.264	0:00-24:00	Always	30	Highest	1080P/720P
Disk Saving	H.264	0:00-24:00	Motion	30	Normal	960x540/640x360
Minor	H.264	0:00-24:00	Motion	15	Low	960x540/640x360

3.1.2 Insert a New Schedule Manually

Step 1: Left-click and draw the bar you want add to the time table. The scheduled time will show as a grey bar.



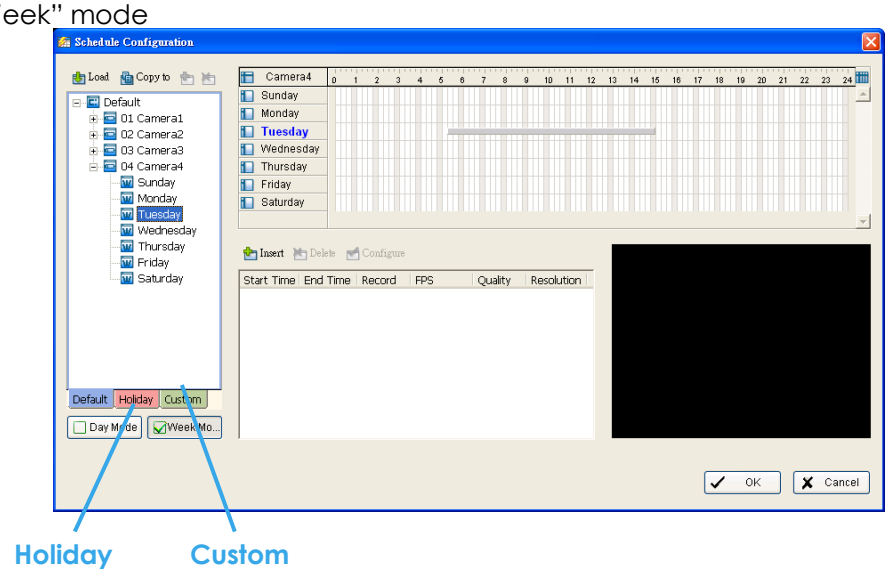
Step 2: Click the **Insert** icon and add a new schedule in the Regular Mode, i.e. to record video during the time period you set with 30 FPS, normal video quality, and normal resolution.
Step 3: Change the setting by clicking on the **Configure** icon (See page 55 for detail) or double click the **Schedule Information**.
Step 4: Click **OK**.

3.1.3 Copy Schedule

You may set up the schedule for each channel/camera by repeating the process above, or by simply applying the setting of a single camera to all the others by clicking the **Copy To** icon at the top of the display window.

3.1.4 Holiday and Custom setting

Allows you to schedule each camera for a different day of the week, additionally, you may assign extra holidays in the "Week" mode



Holiday: You may assign holidays where the system will work according to the setting for Sunday.

Note: The default Holiday setting will apply Sunday's settings. For the Middle East region where Friday is a holiday, please adjust setting by right clicking on

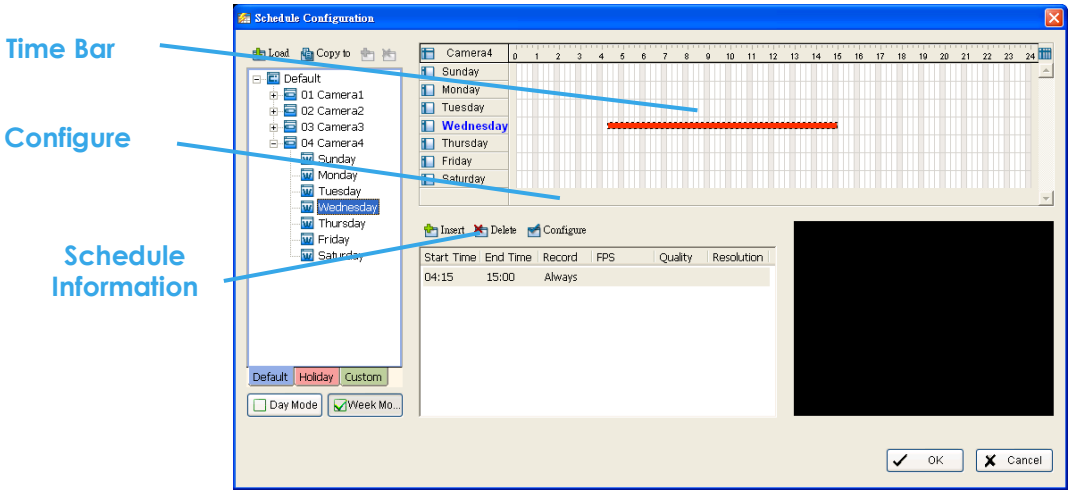
and select "Apply Holiday Schedule From…".

Custom: You can assign a particular date(s) on which the system will work according to a special schedule(s) different from the others.

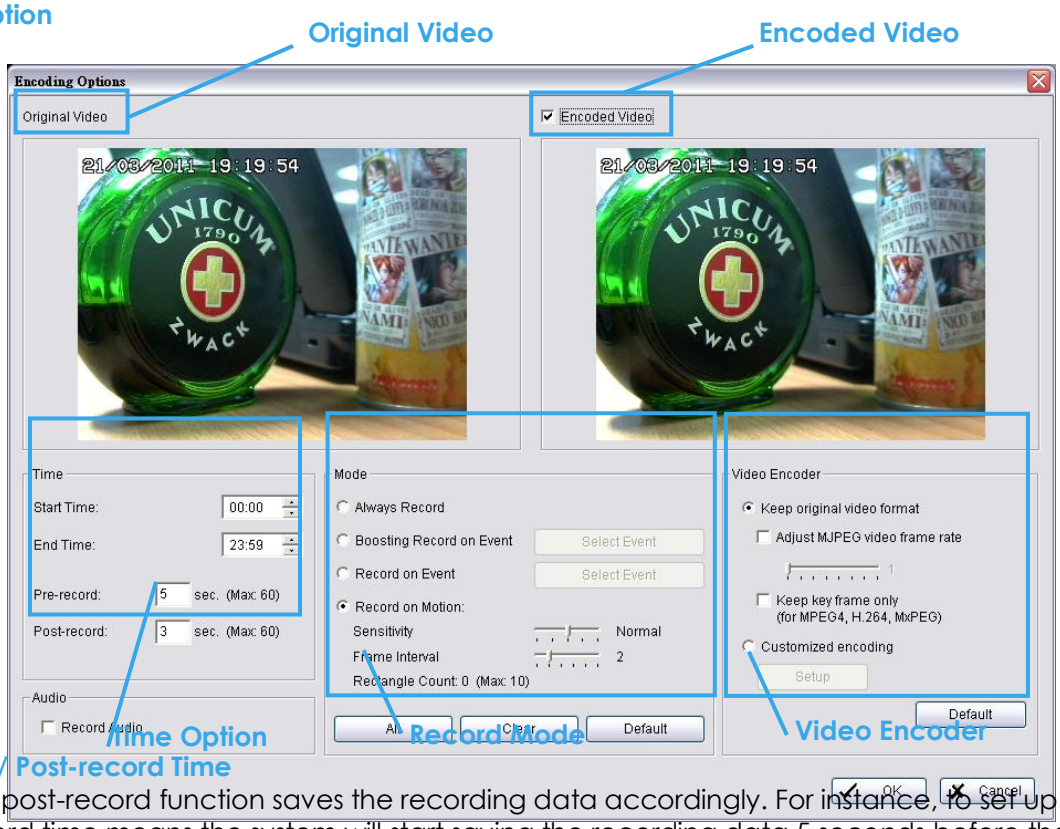
3.2 Adjust the Scheduled Setting:

You can manually change the setting at any time after you insert or load a schedule.

- **Option 1:** Move the cursor to the "Time Bar" and change the length or move the bar sideways to change the start and end points.
- **Option 2:** Click on the **Configure** icon or double click on "Schedule Information" from the list to obtain the "Encoding Option" panel (next page) and select the desired setting.



3.3 Encoding Option



3.3.1 Pre-record/ Post-record Time

The pre-record/ post-record function saves the recording data accordingly. For instance, to set up a 5 second pre-record time means the system will start saving the recording data 5 seconds before the event happens.

Note: The maximum of pre-record/post record period is 60 seconds.

3.3.2 Record Mode

There are four recording modes to choose from. Choose the one that suits your scenario best.

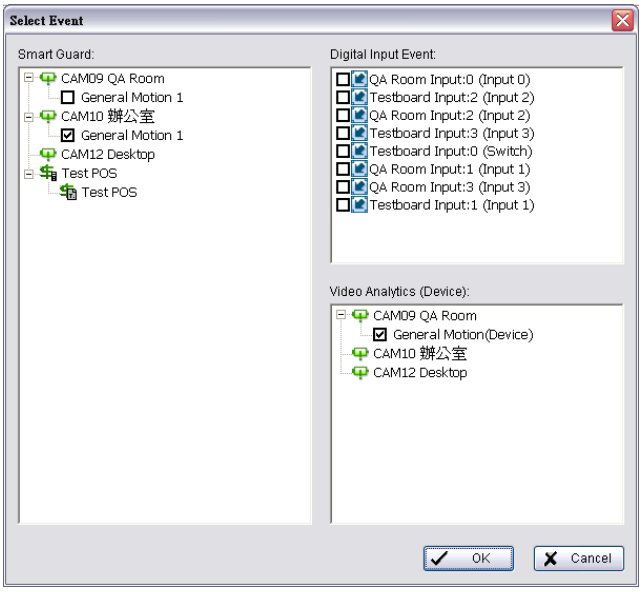
Always Record:

Select this option to record the video continuously.

Boosting Record on Event:

This option enables you to record at lower frame rate at regular times, and at higher frame rate under Smart Guard triggered events.

*This feature is not available under NUUO NVR Lite License



Select this option to obtain the "Select Event" panel. Choose from the list any Smart Guard or digital input events or video analytics from the device. The chosen event(s) will trigger the recorded action. Click **OK**. Configure desired frame rates of normal and boosting recording in the **Video Encoder** box.

Note: Please note it is required to enable "Smart Guard" from the Main Console panel before configuring "boosting record on event" to trigger recording.

Record on Event:

Select this option to start recording at any predefined event, including Smart Guard events, metadata events, digital input events and video analytics from devices.

* Some options are not available under NUUO NVR Lite License

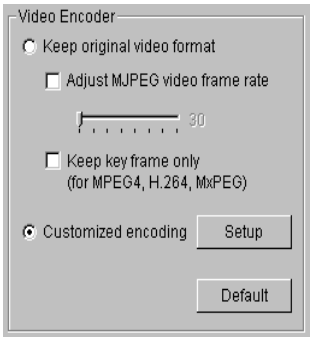
Select this option to obtain the "Select Event" panel. From the Smart Guard list, check the camera events or digital inputs to trigger the recorded action. Click **OK**.
Note: Please note it is required to enable "Smart Guard" from the Main Console panel before configuring "record on event" to trigger recording.

Record on Motion:
Select this option to start recording when motion is detected. Adjust sensitivity, the frame interval and zone to setup motion detection. To setup a single detection zone, left-click and drag the mouse to draw a rectangle. To setup more than one detection zone, simply repeat the same process or click "All" to select the entire screen.
Note: The maximum number of rectangle detection zones is 10.

3.3.3 Encoded Options

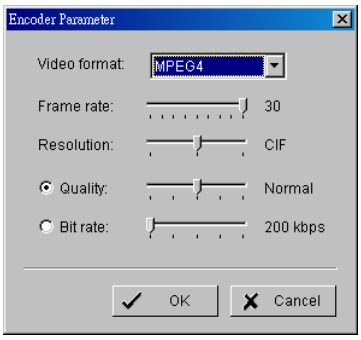
This option sets up the quality of the recorded video. The "Original Video" window is the original stream from the camera. The "Encoded Video" is preview of the recorded video corresponding with the encode settings below.

For IP cameras
The Encode Video function will reduce frames or re-encode original streaming from IP cameras. To save Hard Disk usage, adjust frame rate with original video format or re-encode to smaller file size by adjusting frame rate, resolution and Quality/Bit rate.



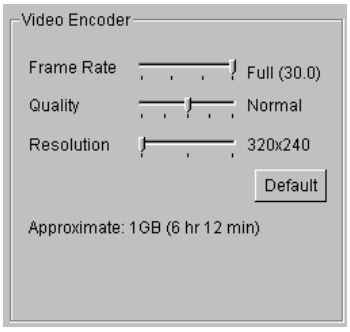
Keep Original Video format:
Select this option to reduce frame rate only but not to re-encode video streams to save Hard Disk usage.

- Adjust MJPEG video frame rate**:** Move slider to left to reduce frame rate.
  Note: The maximum FPS will correspond to original video streams set up on camera configuration.
- Keep key-frame only: System will only record key frames of video streaming.
  Note: The key frame interval is controlled by each camera manufacturer and cannot be adjusted.

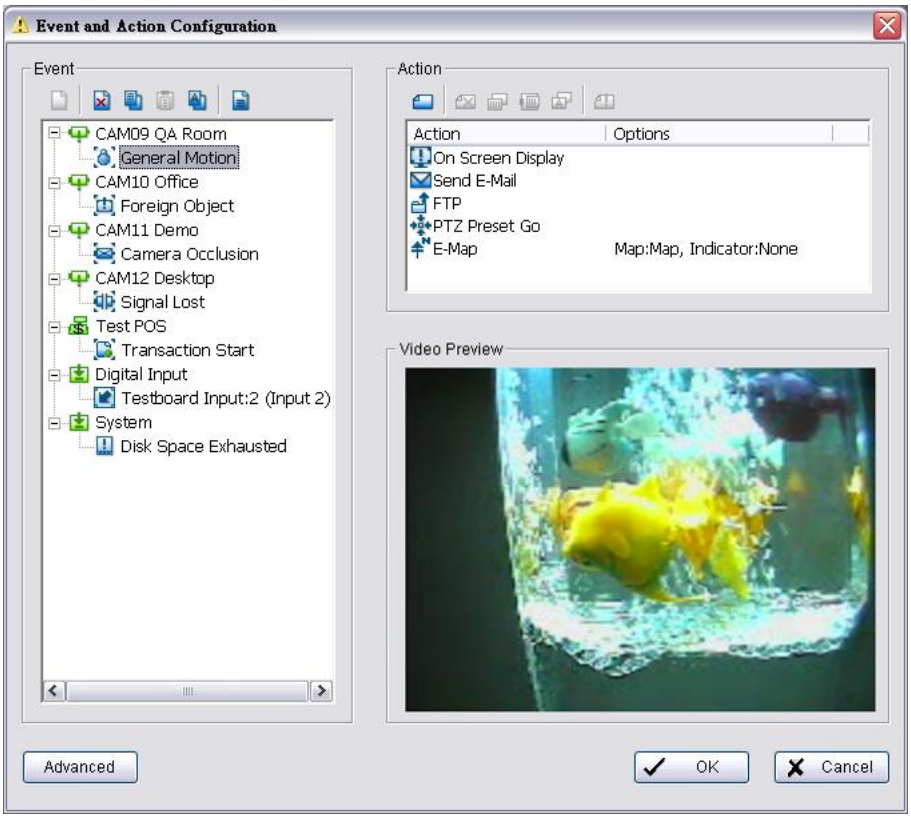


Customized encoding: * not available under NUUO NVR Lite License
The video stream will be decoded then re-encoded by configuration. Click "Setup" button to adjust "Encoder Parameter".
Note: Customized encoding function causes high CPU usage, make sure the PC specification is enough (recommend Core 2 Quad or above)

For Analog cameras
The Encode Video function sets Frame Rate, Quality, and Resolution that you want to record and provides an approximate recorded time period.
For SCB-G3 Series cards you may additionally choose from different video formats, including Mpeg4 and H.264.
Note: Capture card devices "SCB series" are required.



4. Guard

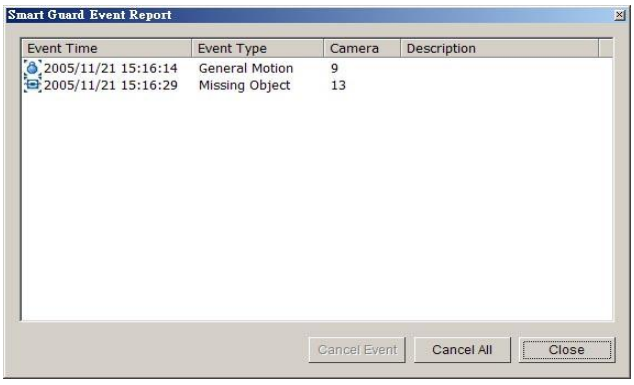


Click on the **Guard** button on the Main Console to start the "Event and Action Configuration" panel. You will need to specify an event to be detected as well as set the appropriate action for the system when the event occurs.

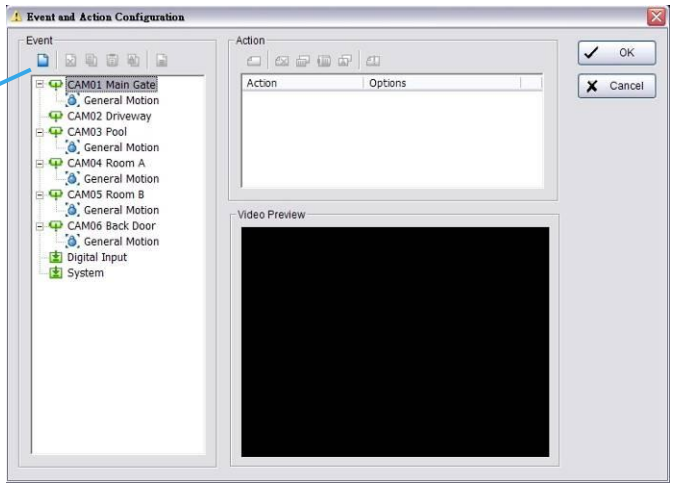
Note:

1. **Crystal Ball:** Indicates the working status of the system. A blue crystal ball shows when the system is recording; it will turn red when an event is detected.

2. **Event Report:** When the crystal ball is red, you can click it to obtain the Smart Guard Event Report and cancel the event(s).



4.1 Event

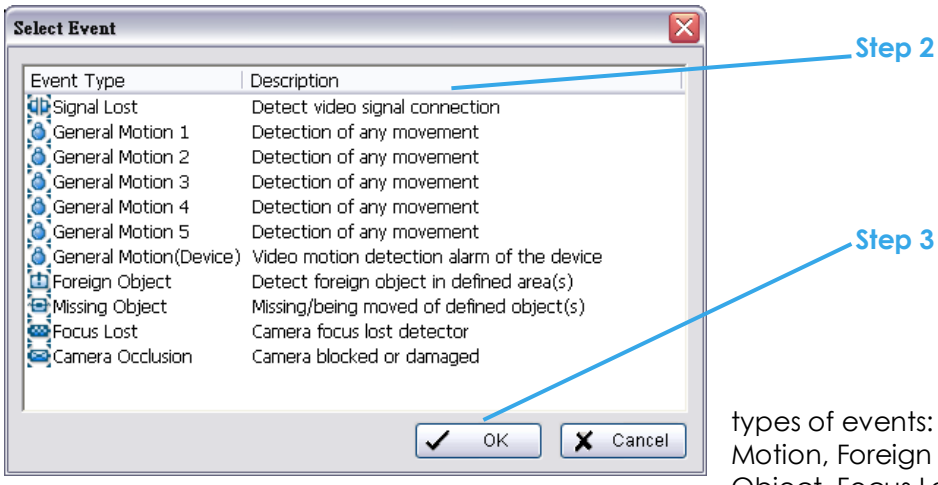


There are 4 sources of events: Camera (video image), metadata, Digital Input (device connected to your PC) and System (condition of your hardware). You can assign multiple events by following the instructions below.

* Note: Some event types will not be available under NUUO NVR Lite License.

4.1.1 Camera Event - Assign a Camera Event

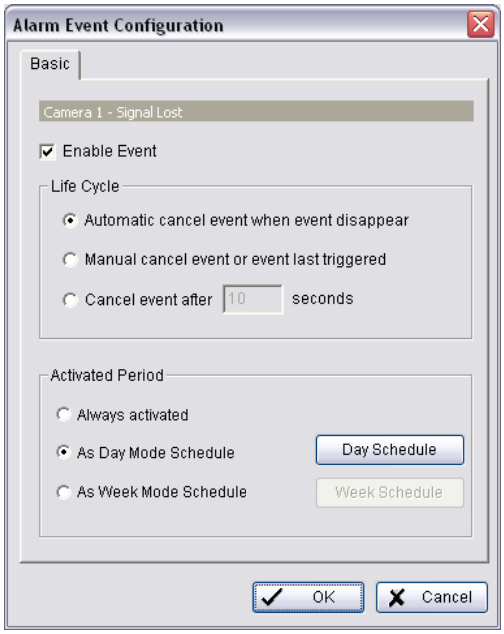
Step 1: Select a camera and click "Insert Event" icon. .



Step 2: There are six types of events: Signal Lost, General Motion, Foreign Object, Missing Object, Focus Lost, and Camera Occlusion. Select the event you want on the Event Type list, and then click OK.

* Note: Only General Motion and Signal Lost are supported under NUUO NVR Lite License.

Step 3: Configure the Event Type. See the following instructions.



4.1.2 Camera Event – Basic Setting

[Signal Lost, General Motion, Foreign Object, Missing Object, Focus Lost, and Camera Occlusion]

Enable Event: Check the box to activate the event.

Life Cycle:

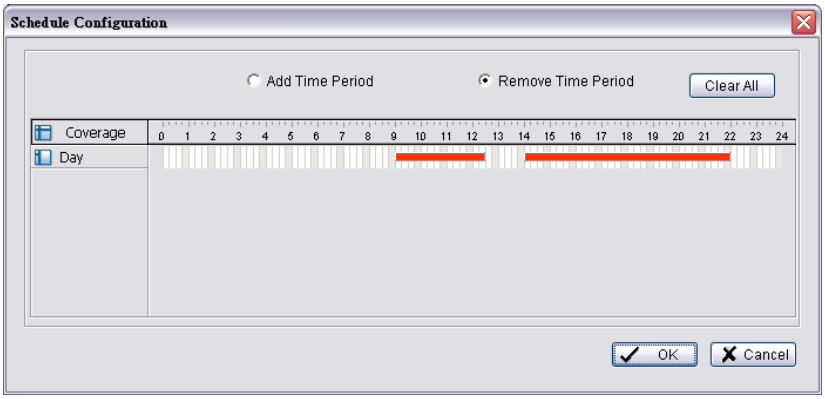
- Automatic cancel event when event disappears: The alarm/action will be cancelled once the event is fixed or ended.
- Manually cancel event or event last triggered: The alarm/action will remain until being cancelled from Main Console. Choose this option to avoiding missing any alarms.
  Note: To cancel the event:
  Method 1: Start > Open Event Report > Cancel All Events
  Method 2 : Click the red crystal ball to obtain the Smart Guard Event Report. Click to cancel the event(s).

- Cancel event after ___ seconds: Enable checkbox and set a

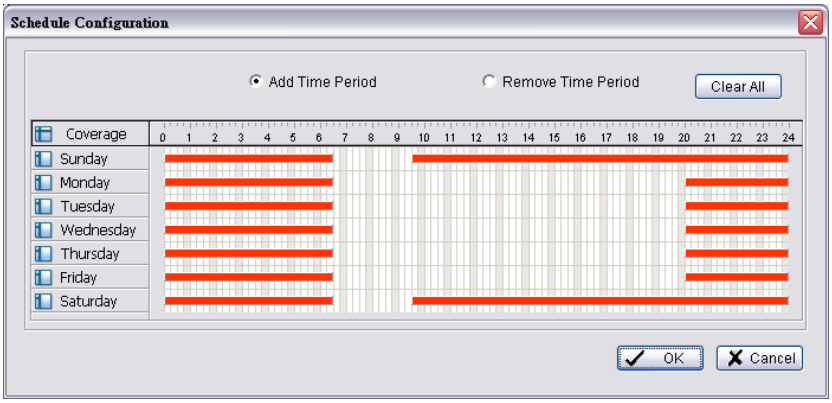
timer for canceling the event after a specific time.

Activated Period:

- Always activated: Allow alarm to be activated at all times.
- As Day Mode Schedule: Customize a specific time range for the alarm to be activated.
  The alarm will be available daily according to your settings.
  Click on **Day Schedule** to configure the schedule.
  Choose **Add Time Period** and drag on the coverage bar to define an activated schedule.
  Choose **Remove Time Period** and drag on the coverage bar to subtract from existing schedules.
  Click on **Clear All** to remove all settings.



- As Week Mode Schedule: Customize a weekly based time range for the alarm to be activated.
  Click on **Week Schedule** to configure the schedule.
  Choose **Add Time Period** and drag on the coverage bar to define an activated schedule.
  Choose **Remove Time Period** and drag on the coverage bar to subtract from existing schedules.
  Click on **Clear All** to remove all settings.



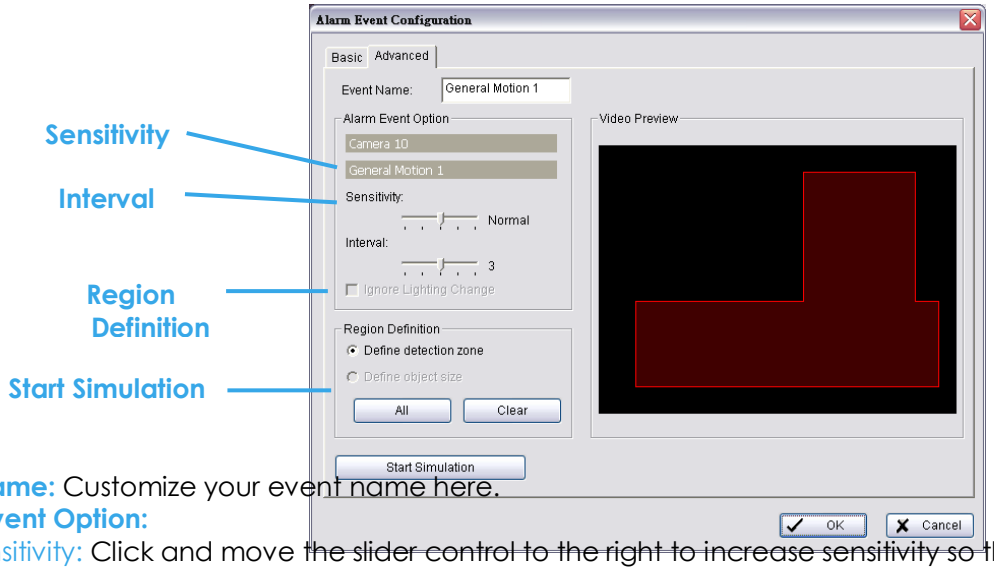
4.1.3 Camera Event - Signal Lost

Detect the loss of video signal from camera.

4.1.4 Camera Event - General Motion

- Detect any movement in the defined detection zone.

For each video channel you may define up to 5 motion detection profiles (General Motion 1-5). This will allow you to set different sensitivity levels for different regions in the same video.



Event Name: Customize your event name here.

Alarm Event Option:

- Sensitivity: Click and move the slider control to the right to increase sensitivity so that minimal movement will trigger the alarm. Move the bar to the left to reduce the sensitivity. Setting up an appropriate sensitivity value will minimize false alarms. For example, you can lower the sensitivity to avoid the alarm being triggered by a swinging tree in the breeze.
- Interval: Click and move the slider control to the right to increase interval time so that the alarm will only be triggered when the movement lasts longer. Move to the left to reduce the interval

Region Definition:

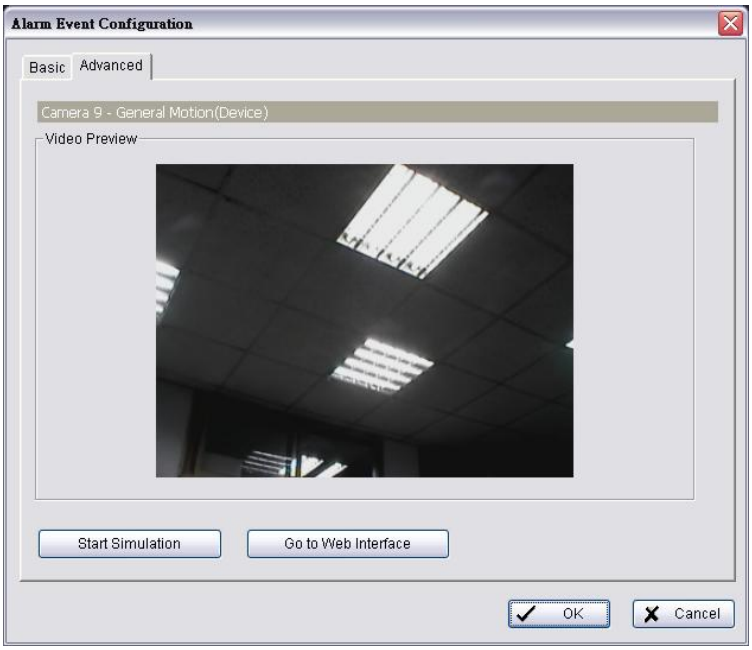
- Define detection zone: To detect General Motion, you have to define a detection zone. Left-click and drag the mouse to draw a detection zone. You may define more than one zone on the screen by repeating the same process. User can also click on "All" button to select the entire detection zone.

Start Simulation: Click the Start Simulation button and test the function on the preview screen.

4.1.5 Camera Event - General Motion (Device)

- Detect movement with motion detectors of devices (IP cameras or video servers).

* Note: This function is only available on devices with built-in motion detection.



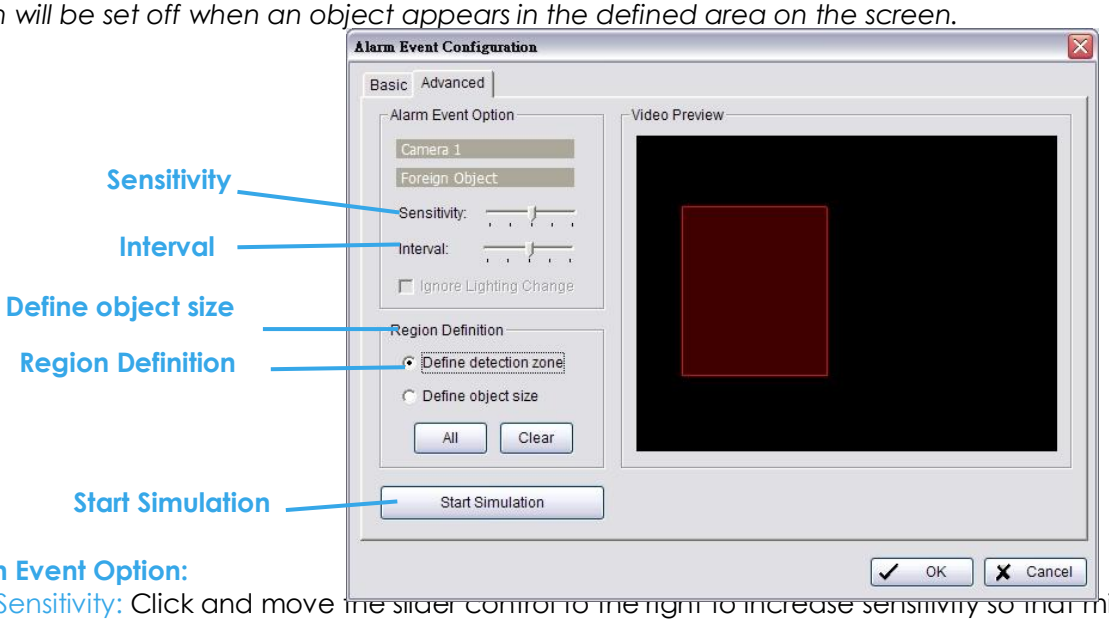
Please refer to the user manual of your device to set up motion detection.

- Start Simulation
  Click to test if motion detection is set up correctly.

- Go to Web Interface
  Click to go directly to device web page for configurations.

4.1.6 Camera Event - Foreign Object

Alarm will be set off when an object appears in the defined area on the screen.



Alarm Event Option:

- Sensitivity: Click and move the slider control to the right to increase sensitivity so that minimal movement will trigger the alarm. Move the bar to the left to reduce the sensitivity of movement detected. Setting up an appropriate sensitivity value will minimize false alarms. For example, you can lower the sensitivity to avoid the alarm being triggered by a swinging tree in the breeze.
- Interval: Click and move the slider control to the right to increase interval time so that the alarm will only be triggered when the movement lasts longer. Move to the left to reduce the interval.

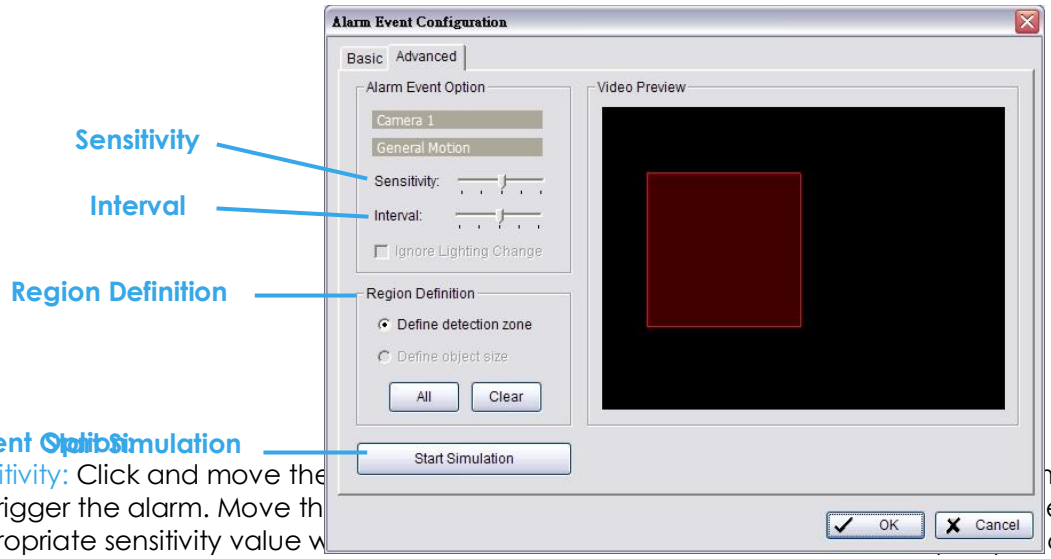
Region Definition:

- Define detection zone: To detect Foreign Object, you have to define a detection zone. Left-click and drag the mouse to draw a detection zone. You may define more than one zone on the screen by repeating the same process. User can also click on "All" button to select the entire detection zone.
- Define Object size: After defining the detection zone, select Define Object Size and then left-click and drag the mouse to indicate the size of the object you want to detect.
  Note: For instance, if you want to prevent somebody from leaving a briefcase in a hallway, place a briefcase in the hallway in view of the camera. On the screen, draw an area that fits the size of the briefcase and define it as the object size. Remove the briefcase and then activate the Smart Guard function on the Main Console. The system will consider everything on the screen normal when you click Start to activate the monitor function.

Start Simulation: Click the Start Simulation button and test the function on the preview screen.

4.1.7 Camera Event - Missing Object

Alarm triggers when an object disappears in the defined area on the screen.



Alarm Event Option:

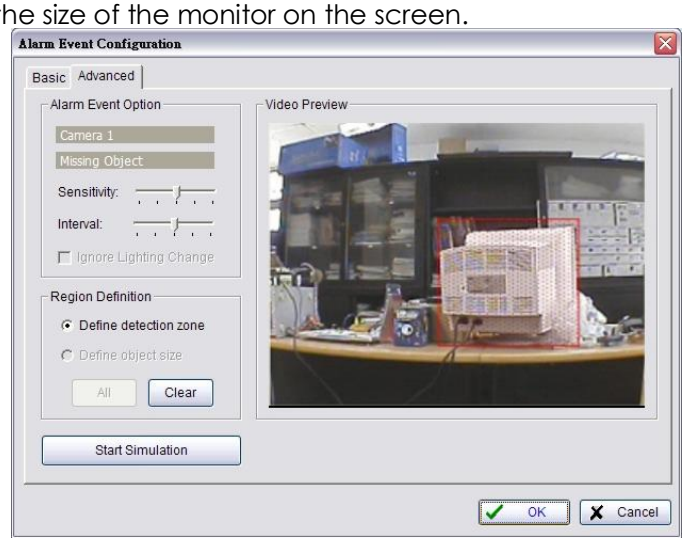
- Sensitivity: Click and move the slider control to the right to increase sensitivity so that minimal movement will trigger the alarm. Move the bar to the left to reduce the sensitivity of movement detected. Setting up an appropriate sensitivity value will minimize false alarms. For example, you can lower the

sensitivity to avoid the alarm being triggered by a swinging tree in the breeze.

- Interval: Click and move the slider control to the right to increase interval time so that the alarm will only be triggered when the movement lasts longer. Move to the left to reduce the interval.

Region Definition:

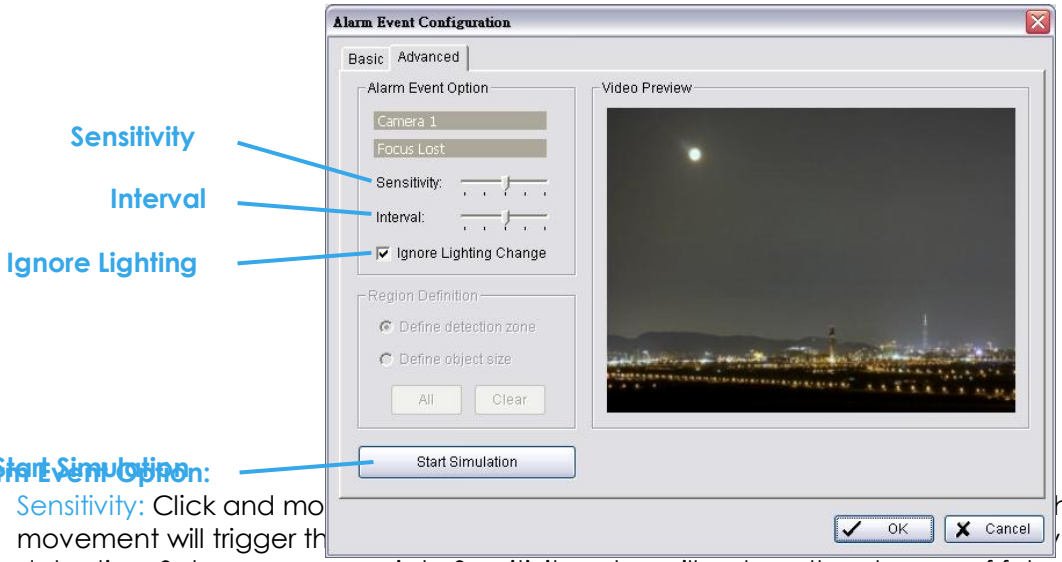
- Define detection zone: To detect Missing Object, you have to define a detection zone. Left-click and drag the mouse to draw a detection zone. You may define more than one zone on the screen by repeating the same process. User can also click on "All" button to select the entire detection zone. ***Note***: For instance, if you want to prevent somebody from removing the computer monitor on the desk, draw an area that fits the size of the monitor on the screen.



Start Simulation: Click the Start Simulation button and test the function on the preview screen.

4.1.8 Camera Event - Lose Focus

This function alarms you when any of the cameras is losing focus and has blur image.



- Sensitivity: Click and mo hat a relatively small movement will trigger th of movement detection. Set up an appropriate Sensitivity value will reduce the chance of false alarm. For example, you can lower the Sensitivity to avoid the alarm being triggered by a swinging tree in the breeze.
- Interval: Click and move the slider control to the right to increase interval time so that the alarm will only be triggered when the movement lasts longer. Move to the left to reduce the interval time.
- Ignore Lighting: Check the box to avoid alarm being set off by light changing.

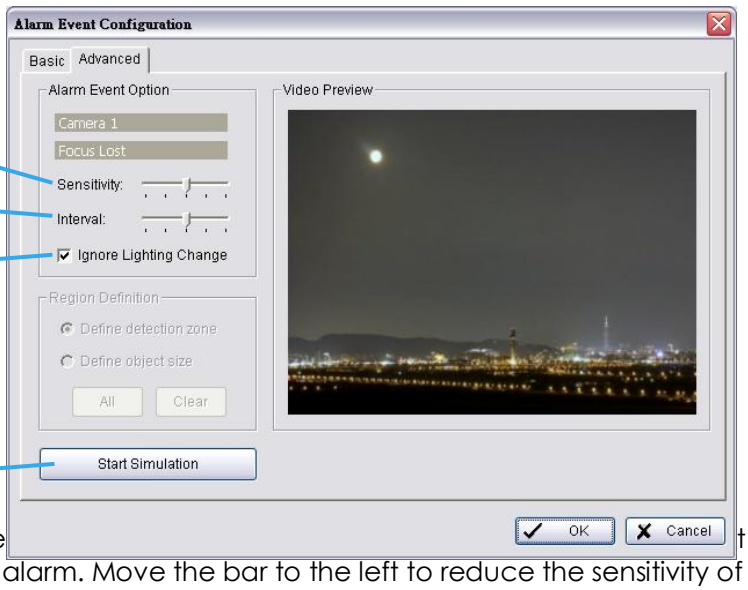
Region Definition:

- Define detection zone: To detect Lose Focus, you have to define a detection zone. Left-click and drag the mouse to draw a detection zone. You may define more than one zone on the screen by repeating the same process. User can also click on "All" button to select the entire detection zone.

Start Simulation: Click the Start Simulation button and test the function on the preview screen.

4.1.9 Camera Event - Camera Occlusion

This function alarms you when any of the cameras are blocked.



Alarm Event Option:

- Sensitivity: Click and move t a relatively small movement will trigger the alarm. Move the bar to the left to reduce the sensitivity of movement detection. Set up an appropriate Sensitivity value will reduce the chance of false alarm. For example, you can lower the Sensitivity to avoid the alarm being triggered by a swinging tree in the breeze.
- Interval: Click and move the slider control to the right to increase interval time so that the alarm will only be triggered when the movement lasts longer. Move to the left to reduce the interval time.
- Ignore Lighting: Check the box to avoid alarm being set off by light changing.

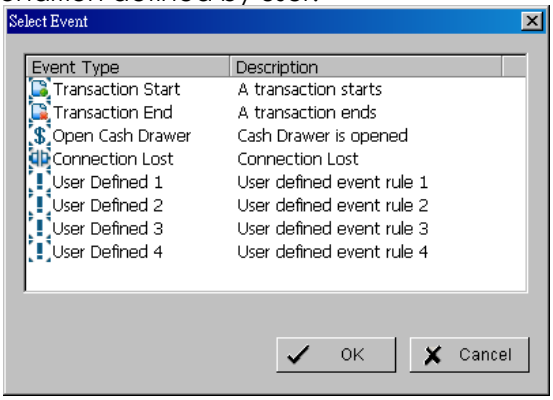
Start Simulation: Click the Start Simulation button and test the function on the preview screen.

4.1.10 Metadata Event - Assign a Metadata Event

Step 1: Select a metadata device from the list and click to insert event.
Note: Please insert the metadata device in Config - Metadata Application first. Then set the alarm based on it.

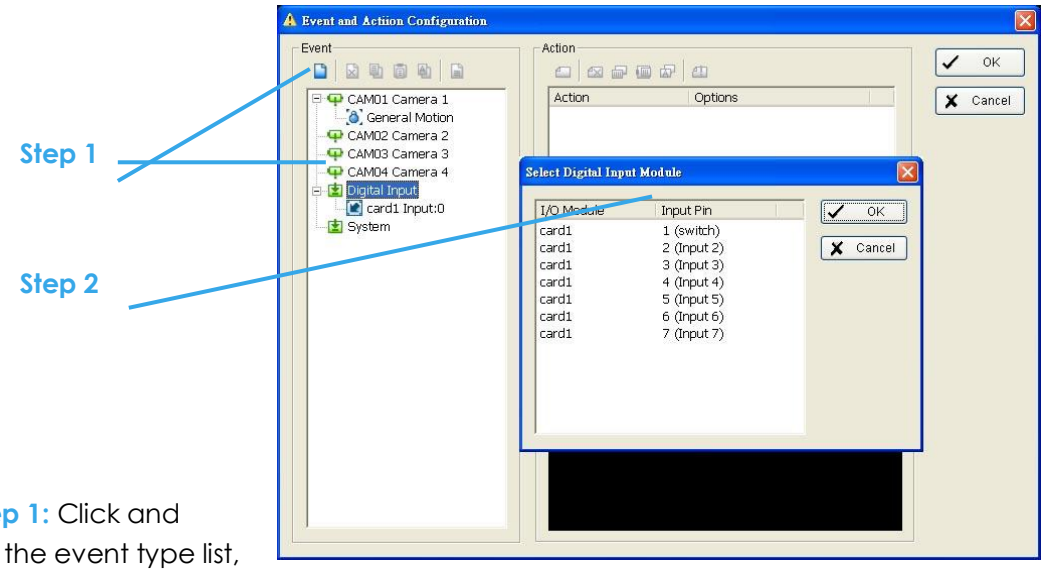
Step 2: There are five types of events: Transaction Start, Transaction End, Open Cash Register, Connection Lost and User Defined. Select the event you want on the Event Type list, and then click OK.
Note that the Open Cash Register event is available on POS metadata devices only.

- **Transaction Start** - Detect the beginning of any transaction.
- **Transaction End** - Detect the end of any transaction.
- **Open Cash Drawer** - Detect the opening of any cash drawer.
- **Connection Lost** - Detect the connection problems between metadata devices and Main Console.
- **User Defined** - Detect any condition defined by user.



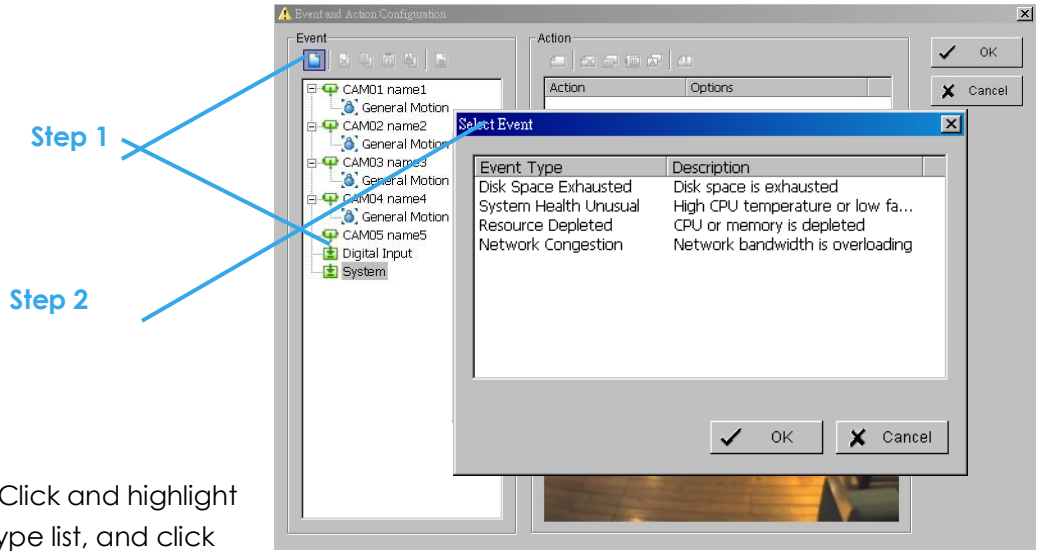
Step 3: Configure the setting of the Event Type. For details please refer to the user manual of metadata plugins.

4.1.11 Digital Input Event - Digital Input Event



Step 1: Click and highlight Digital Input on the event type list, and then click the Insert Event icon.
Step 2: Select the device that is connected to your system.

4.1.12 System Event - Assign a System Event



Step 1: Click and highlight System on the event type list, and click the Insert Event icon.
Step 2: There are four events, select the event you want to detect.

4.1.13 System Event - Disk Space Exhausted

This function alarms you when disk space is exhausted.

4.1.14 System Event - System Health Unusual

This function alarms you when CPU is under high temperature or fan speeds are running low.

Current Status: Displays current CPU temperature, Motherboard Temperature, Fan Speed and Power fan speed.
Options: Check the Temperature Format for Celsius or Fahrenheit; fix maximum motherboard temperature for High Temperature Alarm and minimum RPM for Power Fan Speed Alarm.

4.1.15 System Event – Resource Depleted

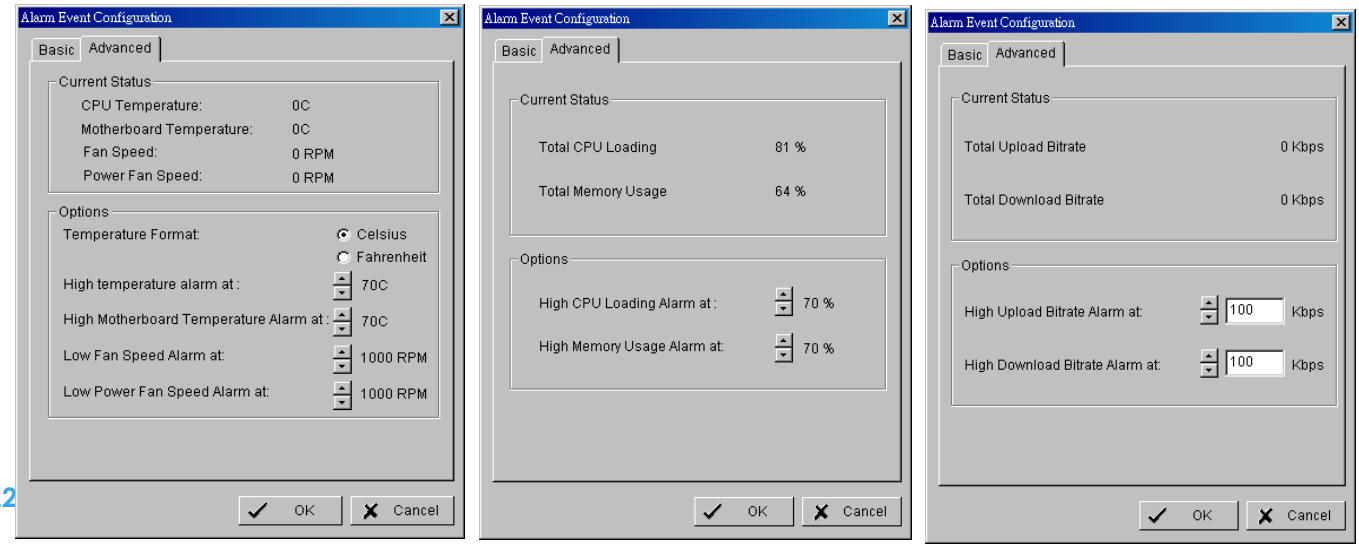
This function alarms you when CPU or memory is depleted.
Current Status: Shows you the current Total CPU Loading and Total Memory Usage.
Options: Fix maximum percentage for High CPU Loading Alarm and High Memory Usage Alarm.

4.1.16 System Event – Network Congestion

This function alarms you when network bandwidth is overloaded.

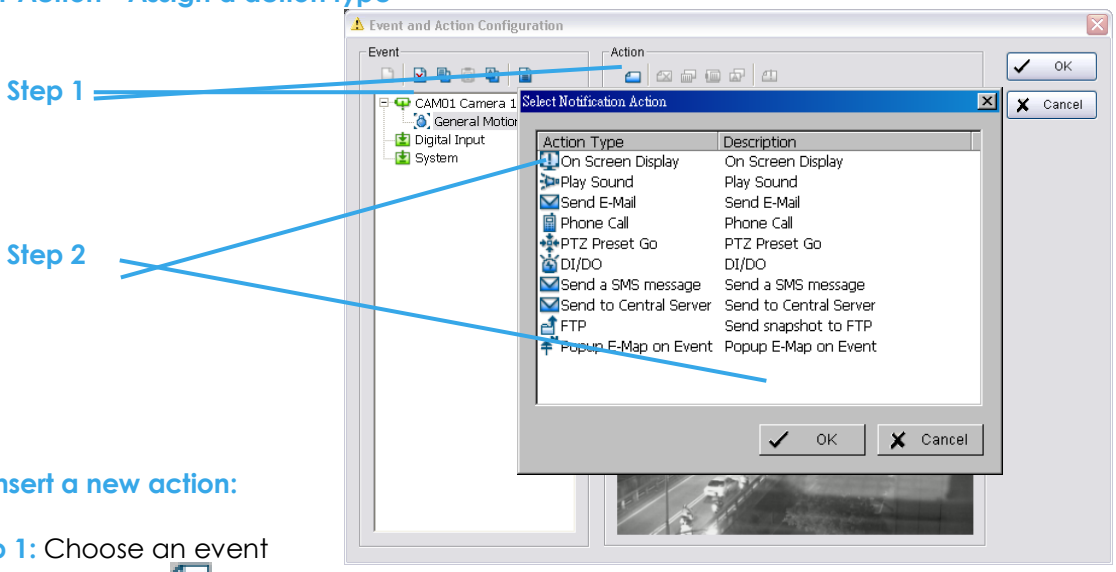
Current Status: Shows you the current Total Upload/Download bit rates.
Options: Fix maximum bit rate (Kbps) for High Upload/Download Bit rate Alarms.

System Health Unusual **Resource Depleted** **Network Congestion**



4.2

4.2.1 Action - Assign a action type



To insert a new action:

Step 1: Choose an event and click the insert action icon.

Step 2: There are 10 types of actions, select the actions you want and then click OK.

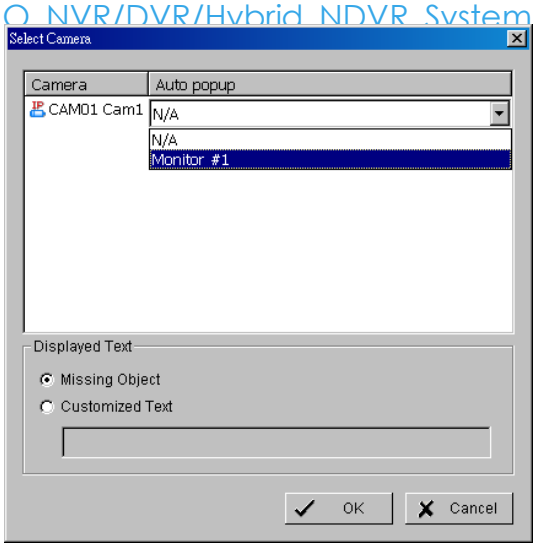
1. On Screen Display
2. Play Sound
3. Send E-mail
4. Phone Call
5. PTZ Preset Go
6. DI/DO
7. Send a SMS Message
8. Send to Central Server
9. Send snapshot to FTP
10. Popup E-Map on event.

* Note: Some actions will not be available under NUUO NVR Lite License.

Step 3: Configure the setting of the Action Type if needed.

4.2.2 Action Type - On Screen display

A red warning will be flashing on the screen of Main Console, indicating which type of unusual event is detected.



Step 1: Select the "On Screen display" action and then click OK.

Step 2: The responding window will popup to Selected Camera. Click the "On Screen display" indicator to modify the setting.
Camera: Display the camera applied to this action.
Auto popup: Click the Auto popup column and select the expected monitor for popping up the event.
Displayed text: You can follow the default setting to show the event type, or enable "Customized Text" to define the text as your preference.

4.2.3 Action Type - Play Sound

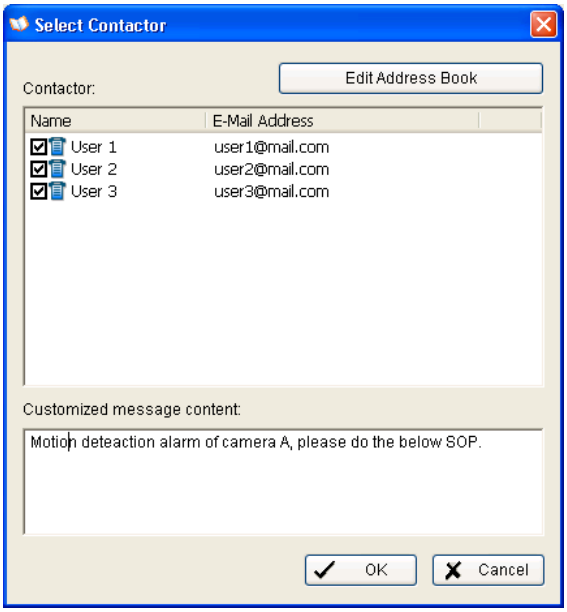
Sound alarm – the system will play the sound as alarm when an unusual event is detected.

Step 1: Select the "Play Sound" action and then click OK.

Step 2: The responding window will popup to choose a Wave file (.wav). Click the "Play Sound" indicator to modify the setting.

4.2.4 Action Type - Send E-mail

The system will send an E-mail immediately to given accounts indicating the type of event, the time, and attaching a picture taken while the event is detected.



Step 1: Select the "Send E-mail" action and then click OK.

Step 2: The responding window will popup to Select Contact, type the message to append. (You can choose more than one contact).
Edit Address Book: Insert the contact information here.
Note:

1. To give the system the E-mail accounts, go to Config > Setup > Hotline. See Configurations on page 79 for details.
2. For Digital Input Events, this warning action will send the snapshot of the associated camera. Please refer to I/O settings for details.

4.2.5 Action Type - Phone Call

The system will call a given phone number when an unusual event is detected.

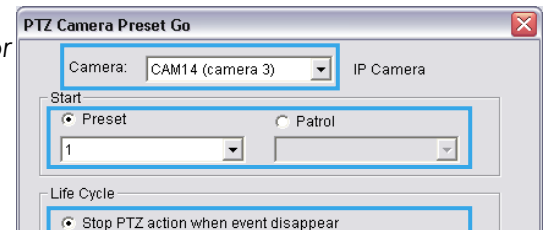
* Note: This function is not available under NUUO NVR Lite License.

Step 1: Select the Phone Call action and then click OK.

Step 2: The responding window will popup to Select Contactor and key-in the message which want to append on SMS content. (You can choose one more contact at once).
Note: To setup the phone number and make an audio record for the phone call, go to Config - Setup - Hotline. See Configuration on page 79l.

4.2.6 Action Type - PTZ Preset Go

The PTZ (pan/tilt/zoom) camera will go to a preset point or detected.



* Note: This function is not available under NUUO NVR Lite license.

Step 1: Select the "PTZ Preset Go" action and then click OK.

Step 2: The responding window will pop up to PTZ Camera Preset Go. Click the "PTZ Preset Go" indicator to modify the setting.

Step 3: Set the action of cameras which you want to trigger by events.

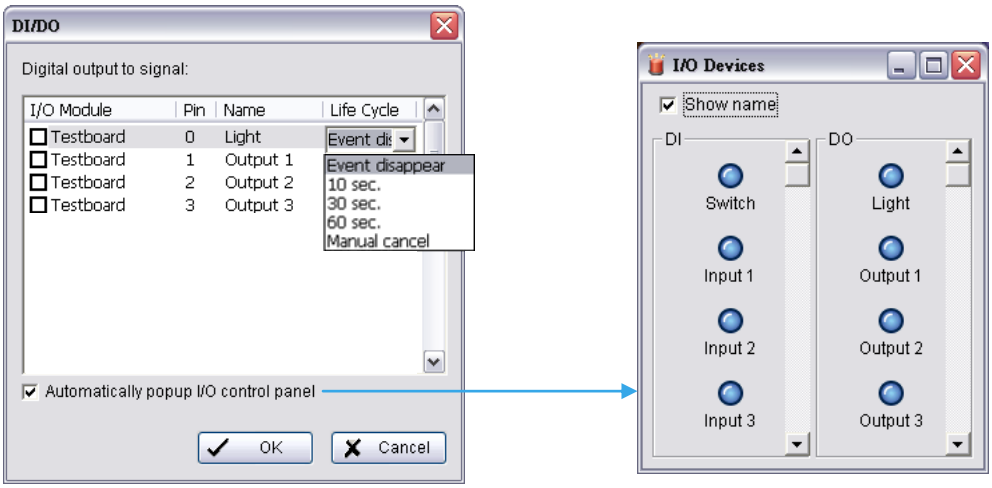
For example: Please follow below steps to setup this function.

- Set the action of camera 1:
  1. Choose camera 1.
  2. Set the start, end preset points.
  3. Select the Life Cycle.
  4. Click on Add.
- Set the action of camera 2:
  5. Choose camera 2.
  6. Set the start patrol and end patrol.
  7. Select the Life cycle
  8. Click on Add.
  9. Finally click on Ok to save all setting of cameras.

Note: Configure your PTZ camera before using this function. See Config on page 77 for PTZ camera configuration.

4.2.7 Action Type – DI/DO

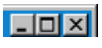
To trigger Digital input/output *devices connected to the system, such as alarm lights and sirens.*



Step 1: Select the "DI/DO" action and then click OK.

Step 2: Select devices to be triggered by event.

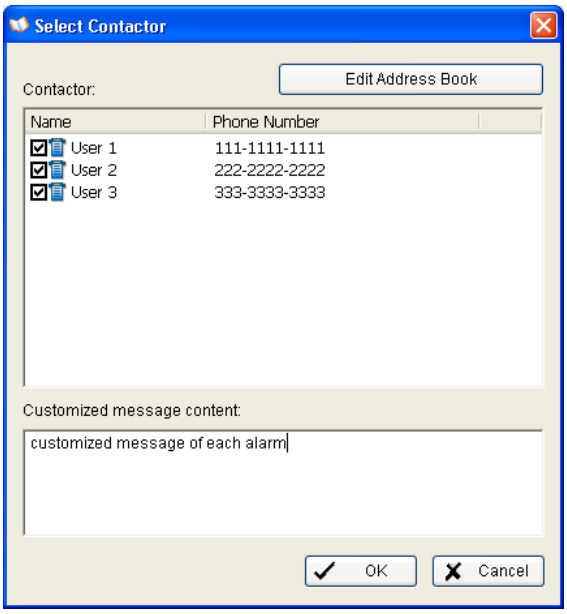
Step 3: Click on the **Life Cycle** box of each device to configure the life cycle of each triggered alarm. The alarm may terminate when the event disappears, 10/30/60 seconds after trigger, or require a manual cancel. Note that you may also customize a timer by simply inserting a number in the box.

Step 4: You can enable the **Automatically Popup I/O Control Panel** check box to obtain the correspondent panel to monitor the I/O status.
Note: You should adjust the setting of I/O device in Config>Setting>I/O Device first, the I/O control panel will display the device status based on it. You can also adjust the size of the panel by dragging a mouse or click the  on the right top of the display window.

4.2.8 Action Type –Send an SMS message

The system will send an SMS message immediately to given accounts indicating the type and time of event.

* Note: This function is not available under NUUO NVR Lite License.



Step 1: Select the "Send a SMS message" action and then click OK.

Step 2: The responding windows will popup to Select Contactor (You can choose one or more contacts). Click the "Send an SMS message" indicator to modify the setting.
Note: To configure a GSM modem for the system, go to Config - Setup - Hotline. See Configuration at page 79.

4.2.9 Action Type – Send to Central Server

This action will send an event and snapshot to NUUO's Central Management Server (separate software package, not included).

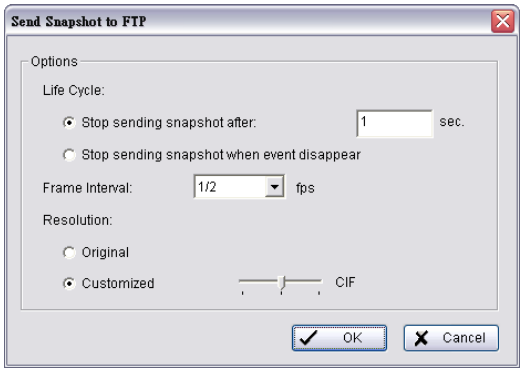
* Note: This function is not available under NUUO NVR Lite License.

Step 1: Select the "Send to Central Server" action and then click OK.
Note: Please refer to the CMS user manual for details on using the Central Management System.

4.2.10 Action Type – Send snapshot to FTP

The system will upload a snapshot immediately to FTP site.

* Note: This function is not available under NUUO NVR Lite License.



Step 1: Select the "Send snapshot to FTP" action and then click OK.

Step 2: Configure options.

- Life Cycle: Configure the system to stop sending snapshots after ___ seconds, or when the event is terminated.
- Frame Interval: Define the frequency of snapshots.
  - Minimum is 1/60 fps (1 snapshot per 60 seconds)
  - Maximum is 30fps (30 snapshots per second).
- Resolution: Choose to keep snapshot in original resolution or compress to lower resolution.

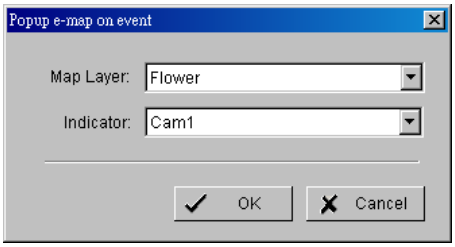
Note:

1. For Digital Input Events, this warning action will send the snapshot of the associated camera. Please refer to I/O settings for details.
2. To define an FTP server, go to Config > Setup > Hotline. See Configuration at page 79 for detail.

4.2.11 Action Type – Popup E-Map on Event

The system will auto popup E-Map window and show the assigned map and indicator.

* Note: This function is not available under NUUO NVR Lite License.



Step 1: Select the "Popup E-Map on Event" action and then click OK.

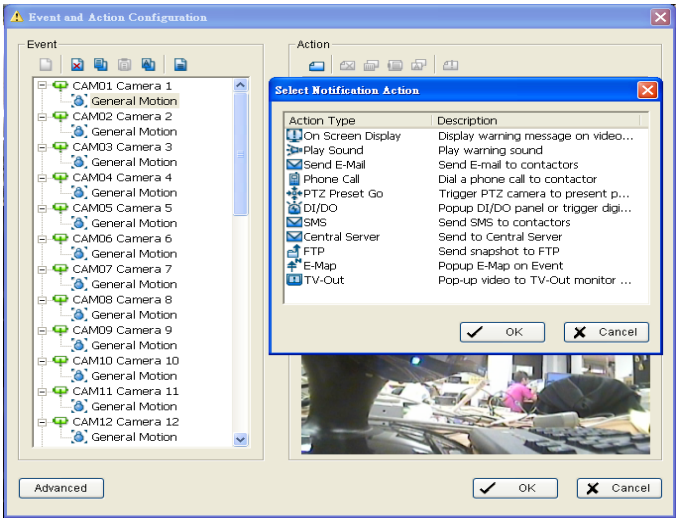
Step 2: The responding window will popup to Popup e-map on event. Click the "Popup E-Map on Event" indicator to modify the setting.

Step 3: Select the Map Layer and Indicator, and then click OK.
Note: To edit E-Map, see Configuration at page 97.

4.2.12 Action Type – TV-Out

Pop-up video to TV-Out monitor on event.

* Note: This function is not available if there is no SCB-7108/7116 card installed.

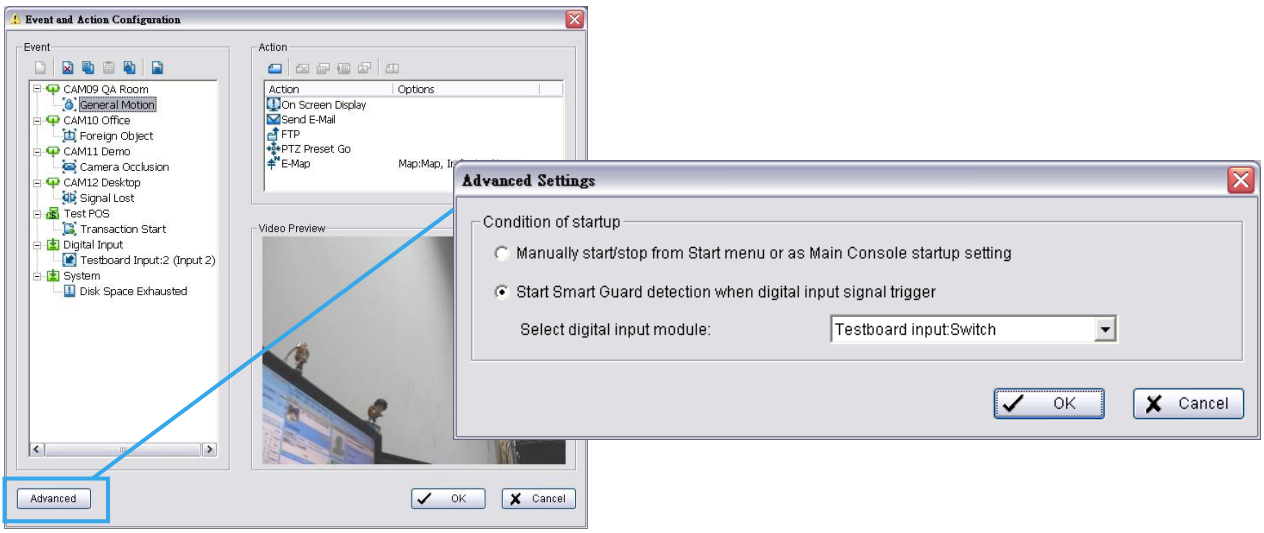


4.3 Advanced Settings

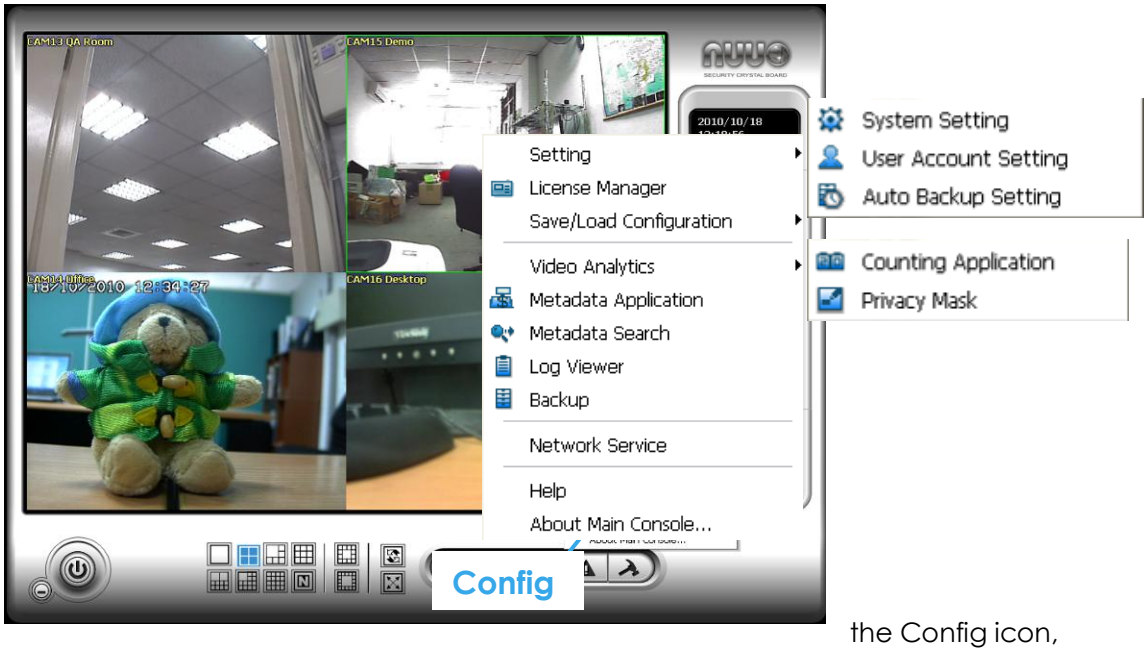
Click on the **Advanced** button on the bottom of the Event and Action Configuration dialog for advanced settings.

Condition of startup – Smart Guard can be started under the follow modes:

1. Manually start/stop from Start menu or as Main Console startup setting (default)
2. Started by defined D/I trigger. Select D/I from dropdown list and click OK.



5. Configuration

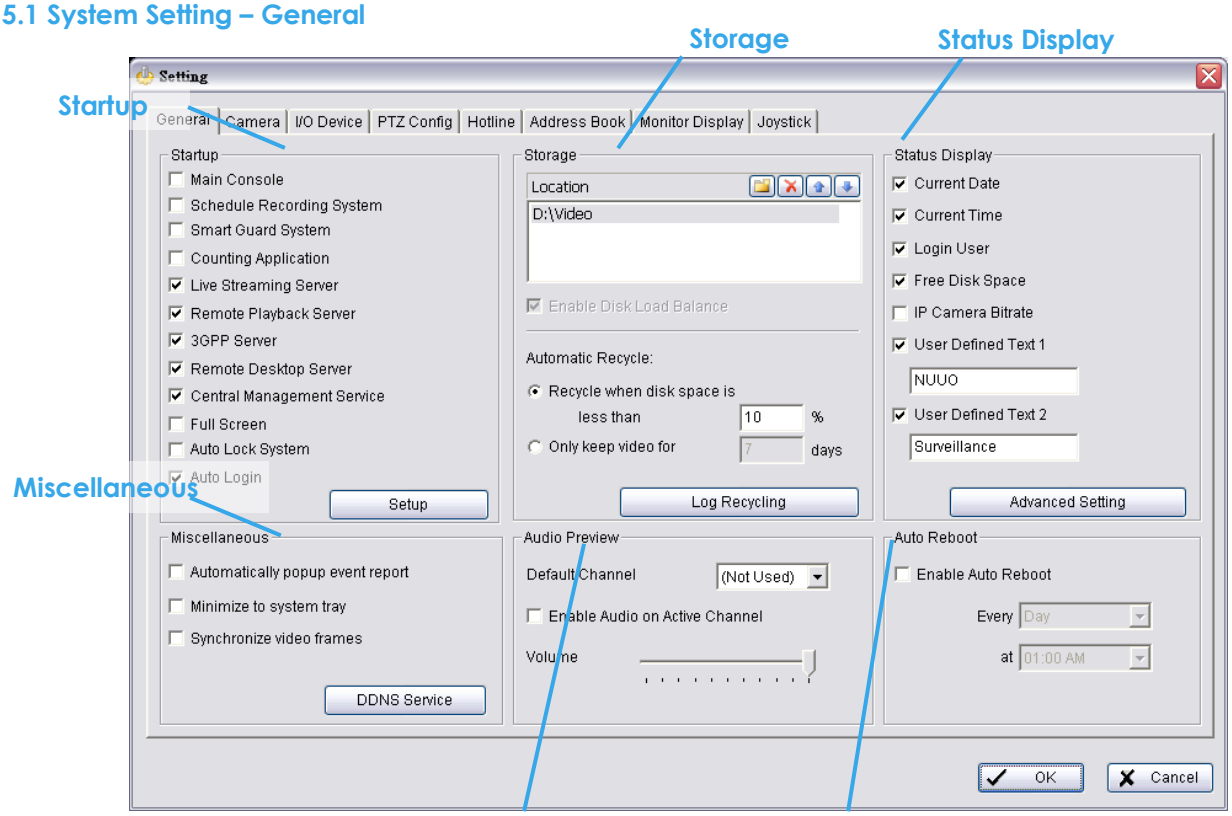


Click on the Config icon, select from the drop-down menu and open the Configuration panel. Modify the setting and access License Manager, Video Analytics, Metadata application, Metadata Search, Log viewer, Backup, or Network Services. Select Save/Load Configuration to save/load all the settings.

* Video Analytics and Metadata Application not available under NUUO NVR Lite License.

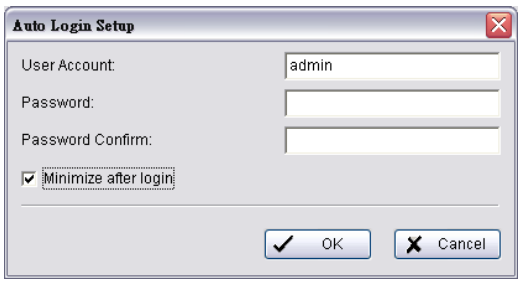
* Video Source function available only with MPEG-4 software compression captures devices.

5.1 System Setting – General



5.1.1

Check the Main Console box to execute Main Console system when windows startup.
Check the following 3 main functions and 5 network services to auto activate functions when Main Console system is executing, including Schedule Recording System, Smart Guard System, Counting Application, Live Streaming Server, Remote Desktop Server, 3GPP Server, Remote Desktop Server and Central Management Service. Checking other options can setup the startup status as Full screen, auto lock system by startup or allow system to auto login with the preset account.



Setup Auto login: Enable "Auto login" and click the Setup button to obtain the Auto Login Setup panel, insert the User Account and Password to login automatically when the system starts. Enable the Minimize after login to minimize the Main Console window after login.

5.1.2 Storage

Location: Assign the default folder (you can setup several directories for storage) for the system to store all data files. Recommend not to save in system HD (C :\) to avoid PC efficiency drop when free storage is low.

If you have more than one drive available for recording, you may check "Enable Disk Load Balance" to evenly distribute recording to multiple drives. This will increase efficiency of the system.

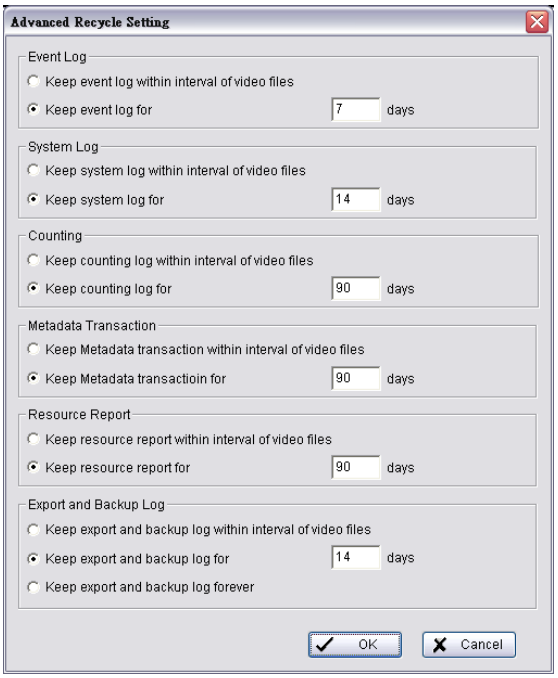
Automatic Recycle: The system will automatically delete out-dated data to save storage space.

- Recycle when disk space is: Set the standard limit to let the system recycle automatically.
  Less than _ %: The system will start to recycle if the disk space is less than the indicated percentage (default is 10%).

  Note:

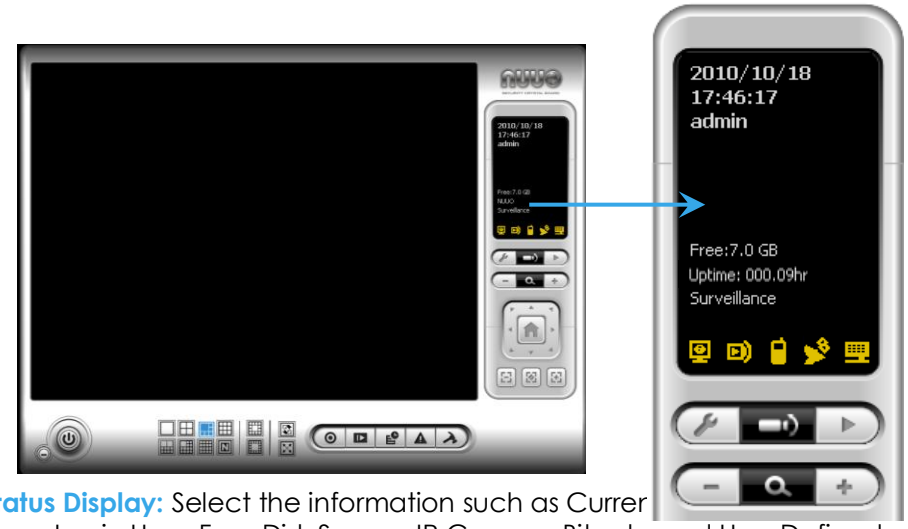
  1. The system will detect the storage space of default location firstly, if the default storage space is exhausted, the video will be stored to the next directory.
  2. If all the status of locations exceeds the storage rule, the system will start recycling in an hour progress.

- Only keep video for: Delete the video records that are older than the number of days set.
  Note: If the default storage spaces exhausted (disc space is less than 3%), the system will start to recycle by hourly period.
- Log Recycling: Click the button to obtain the Advanced Recycle Setting panel. Set the days that you want to keep the event or Keep all event logs within interval of video files.
  Event Log: Delete the event log data that is older than the number of days set.
  System Log: Delete the system log data that is older than the number of days set.
  Counting: Delete the counting application data that is older than the number of days set.
  Metadata Transaction: Delete the metadata transaction data that is older than the number of days set.
  Resource Report: Delete the Resource report data that is older than the number of days set.



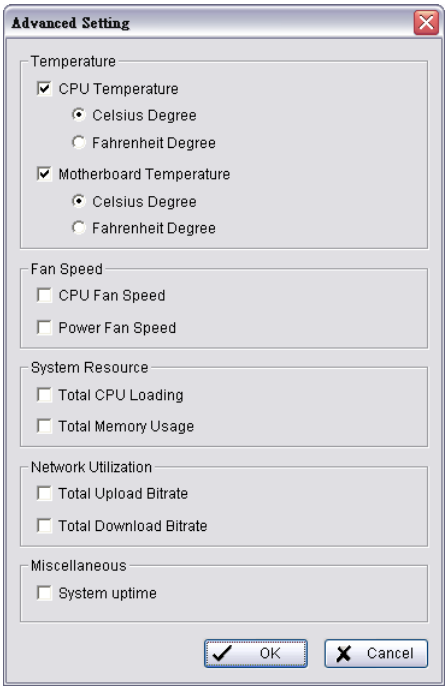
5.1.3 Status Display

Check the boxes of the information that you wish to see in the information display window in the Main Console.



- **Status Display:** Select the information such as Currer Time, Login User, Free Disk Space, IP Camera Bit rate and User Defined Text.

- **Advanced Setting:** Click the button to obtain the Advanced Setting Panel to select Temperature, Fan Speed, System Resource, Network Utilization information and System Uptime info you wish to display.



5.1.4 Miscellaneous

Automatically Popup Event Report**:** Event report dialog to automatically popup when events are detected. Make sure to stop Smart Guard System before you modify the setting, otherwise the modification will not take effect.

Minimize to system tray**:** Enable the Option to minimize the Main console to be an icon in notification area of windows task bar when pressing the minimize button.

Minimize

Note: Insert the username and password of MainConsole again when clicking the minimized MainConsole icon in notification area of windows task bar to start monitoring.

Synchronize video frames: Select to avoid image tearing problems that may occur while CPU loading is increased.

- **DDNS Service:** Dynamic Domain Name Server (DDNS) function allows you to use Live View or Web View to connect to the Main Console through Internet event if you have a dynamic IP address.

  Click on the DDNS button to obtain the Dynamic DNS Setup panel. Set up the DDNS function by selecting the provider type, filling with user name, password and hostname, and adjust the ute period.

5.1.5 Audio Preview

Default Channel: Select the audio channel that you wish to hear from in "Default Channel".

Enable Audio on Active Channel: Select the "Enable Audio on Active Channel" option to hear the audio from the selected video channel (selected by mouse) on each video grid of Main Console. The default channel will play if no specific video channel is selected.

Volume: Adjust the volume with the "volume bar."

System plays the audio of "default channel"

System plays the audio of the upper-left "selected channel"

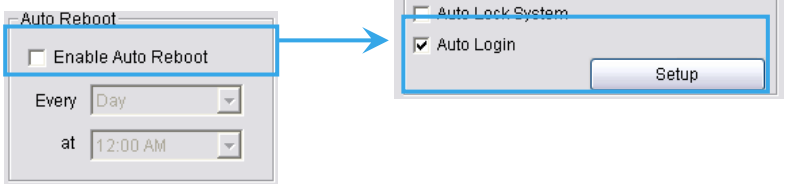
5.1.6 Auto Reboot

Check the option of "Enable Auto Reboot" so that you can reboot the system on the time you select.

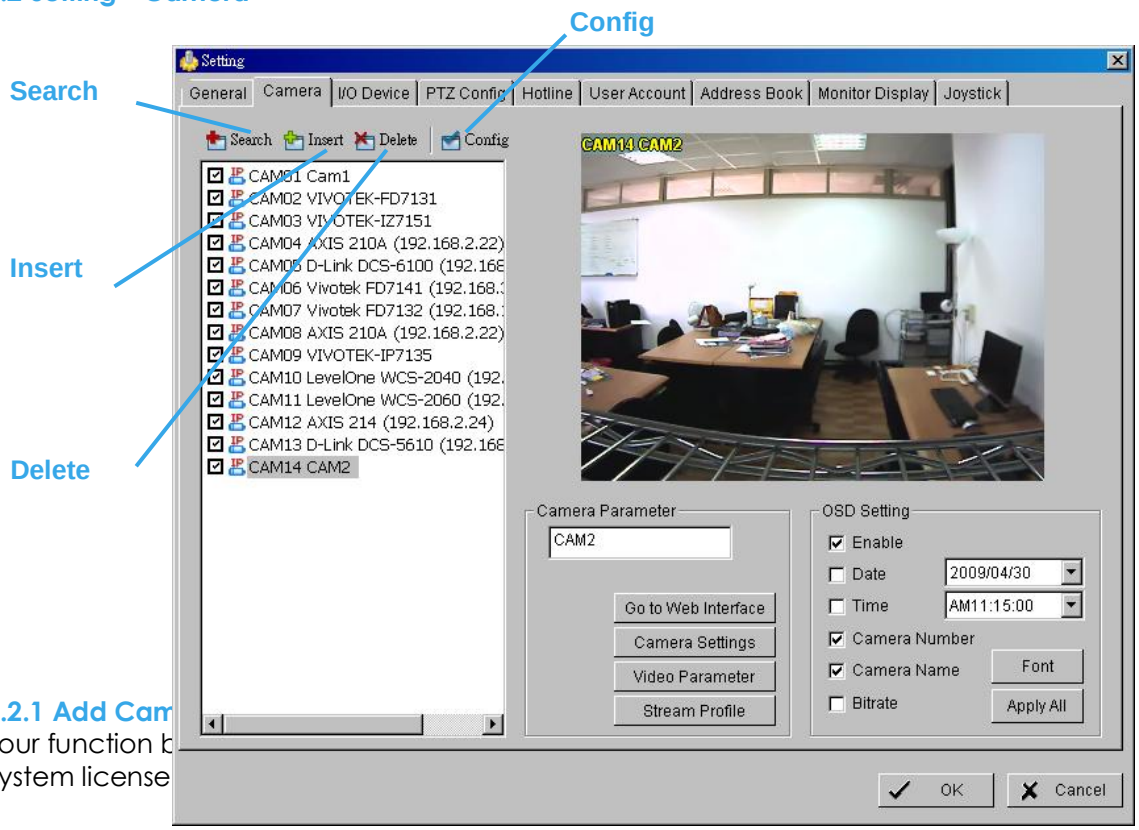
Step 1: Check the option of "Enable Auto Reboot."

Step 2: Select the time you want to reboot.

Note: Enable "Main Console", "Auto Login", "Setup login account" and check other status in Startup section so when PC reboots the system will run normally.



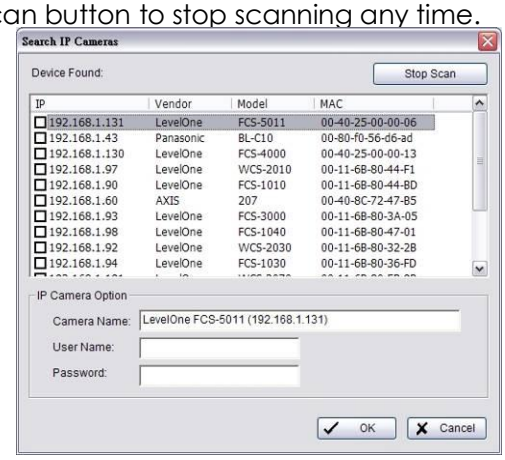
5.2 Setting - Camera



5.2.1 Add Cam

Four function b Surveillance System license

Search: Click on the Search icon for the Search IP Camera panel. The system will start scanning automatically; click on the Stop Scan button to stop scanning any time.



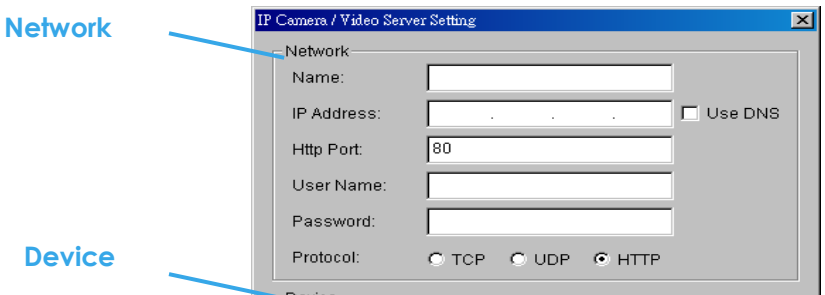
Fill in the user name and password for each IP camera found and click OK to add it to the camera list.

Insert: Click on the Insert icon for the IP/Video Server Setting panel and add IP cameras to the list. See following part (IP Camera/Video Server Setting panel) for detail.

Delete: Click on the Delete button to remove the selected IP camera(s) from the system. Click OK to finalize the modification.

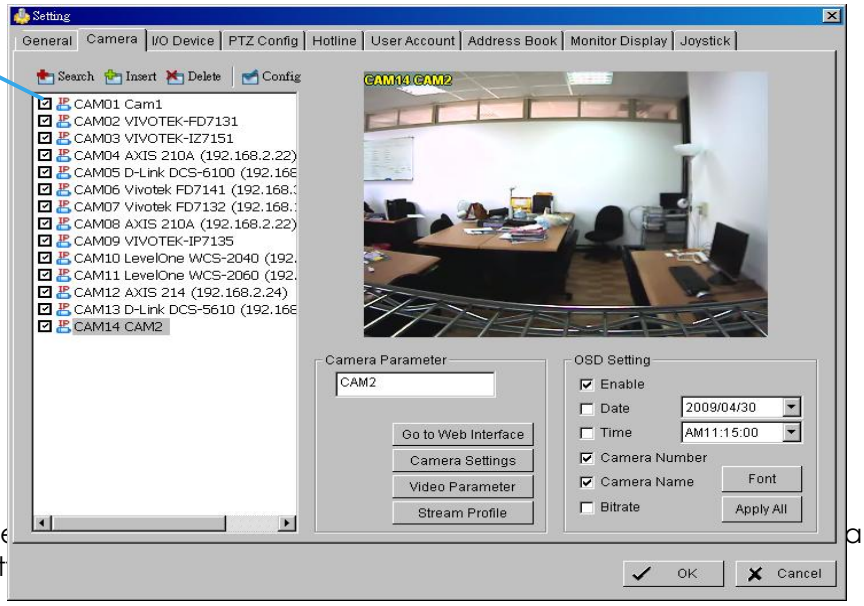
Config: Click on the Config button for the IP/Video Server Setting panel. You can modify the IP camera settings with the Setting panel. See following part (IP Camera / Video Server Setting panel) for detail.

5.2.2 IP Camera / Video Server Setting panel



Network: Fill in required info of the Network field (including Name, IP Address, Http Port, User Name, Password and Protocol) referring to the instruction provided by the camera manufacturer. Check "Use DNS" to use domain name instead of IP address.
Device: Choose the IP camera manufacturer from the drop-down menu. Alternatively click on "Auto Detect" and the detected vendor /model name will show in the box.
Description: Shows information for the IP camera.

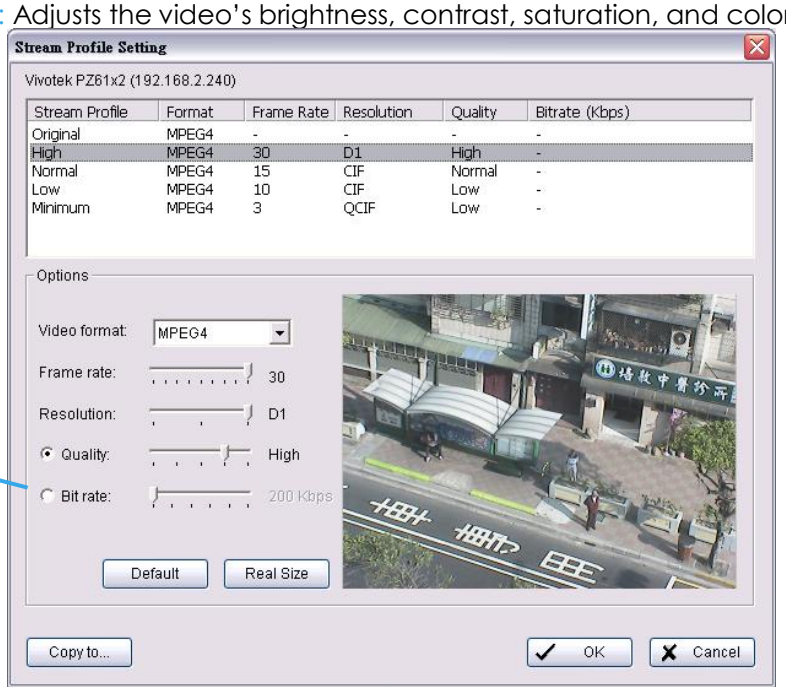
5.2.3 Camera Parameter



Camera List: The came ame of the camera to adjust the set

Camera Parameter:

Camera Name: Name the camera.
Go to Web Interface: Go to vendor's website interface to configure the camera setting (optional).
Camera Settings: Set the camera parameter offered by camera vendor.
Video Parameter: Adjusts the video's brightness, contrast, saturation, and color hue values.
Lens Setting: ImmerVision Lens is currently supported. Click to enable lens or setup configurations, such as camera position.
Stream Profile: Stream profiles are pre-defined to which will preferred settings query of the respond from the function. Each remote live view Format, Frame, profile has different Bit rate (Kbps) Resolution, Quality and settings.



Stream Profile

Options

Note:

The types of stream profiles and options will differ among stream sources.

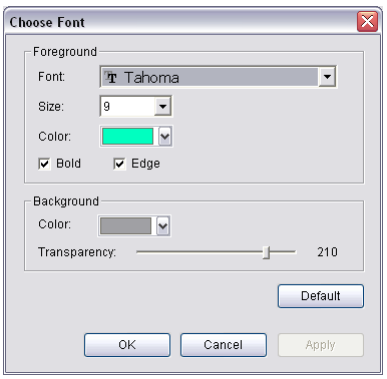
- IP cameras on NVR IP+ License:
  5 profiles include Original (not configurable), High, Normal, Low and Minimum (for /Smart Phone Clients).
- IP cameras on NVR Lite License:
  3 fixed, not configurable profiles including Original, Low and Minimum (for /Smart Phone Clients).
- Analog cameras on SCB series1000-3000 :
  4 profiles include High, Normal, Low and Minimum (for /Smart Phone Clients).
- Analog cameras on SCB series 6000S/7000S/7100 :
  4 profiles include H.264 (H.264 format only), High, Normal, Low and Minimum (for /Smart Phone Clients).
- HDcctv cameras on SCB series 8000HD series:
  4 profiles include H.264 (H.264 format only), High, Normal, Low and Minimum (for /Smart Phone Clients).

Note:

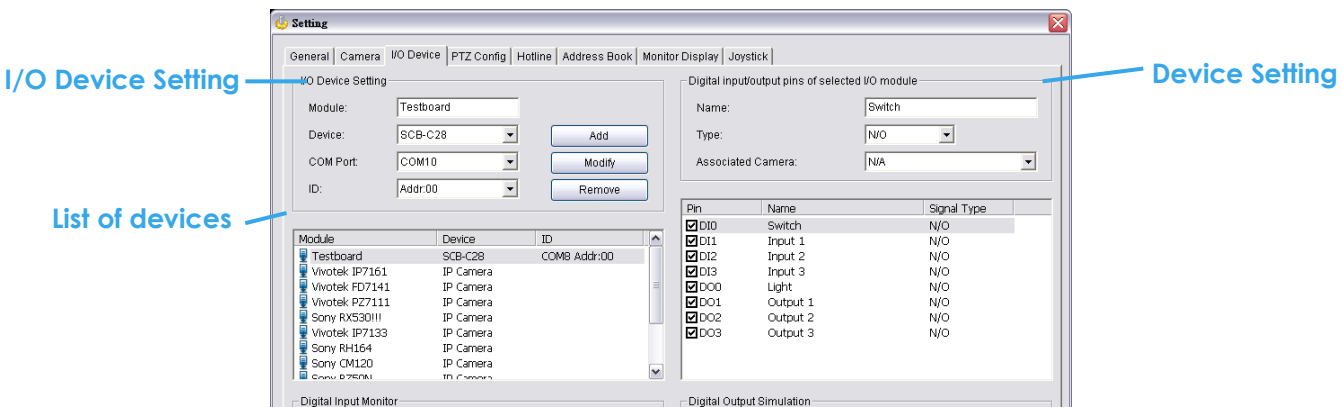
1. Use "Copy to…" option to apply settings of a single camera to others.
2. To choose stream profile of remote live view, see Live view setting at page 109 for detail.

5.2.4 OSD Setting

Select the information that you wish to see in the on-screen display, or the sub-screen of the camera. Click the Font button to setup the font style.



5.3 Setting - I/O Device



Input Monitor

Output Monitor

I/O Device Setting:

- Module Setting: Name the module device and ID that has been connected to the digital input/output device(s) to your system.
- Device: This column displays the device(s) already installed to the system.
- ID: Select the number of the I/O port to which you plug the ribbon cable.

Input Monitor: The device(s) is turned on if the dot is red. By triggering the digital input device, the related icon will light up. This is used to check that the device is correctly connected.

Output Monitor: The device(s) is turned on if the dot is red. By clicking on the icon, you may trigger the digital device connected to the system. This can be used to test if the output device is correctly connected.

Device Setting

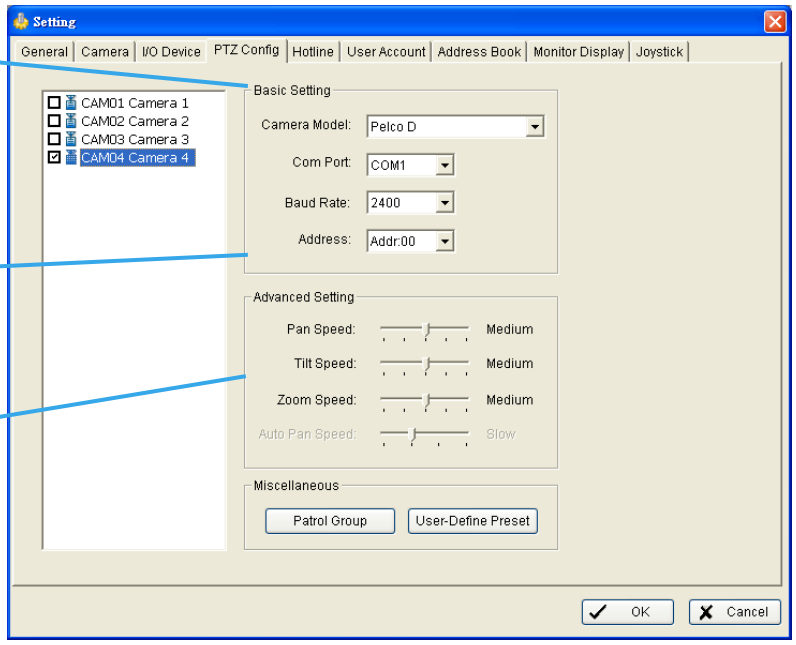
- Name: Insert the name of the device (input and output).
- Type: Select the device type from the drop-down menu.
  1. N/O: Normal Open.
  2. N/C: Normal Close.
- Associated Camera: You may assign one camera to each digital input device. Smart Guard will collect snapshots from these cameras upon certain triggered events. For details please refer to 4.2 - Action. DI's included with IP cameras will keep its own camera as default associated camera.

5.4 Setting - PTZ Config

Basic Setting

Advanced Setting

Miscellaneous



Install PTZ cameras and follow the instructions of the camera manufacturer. A PTZ camera is usually connected to the PC with RS-485/RS-422.

Check the box on the camera list to activate the PTZ control function of a PTZ camera.

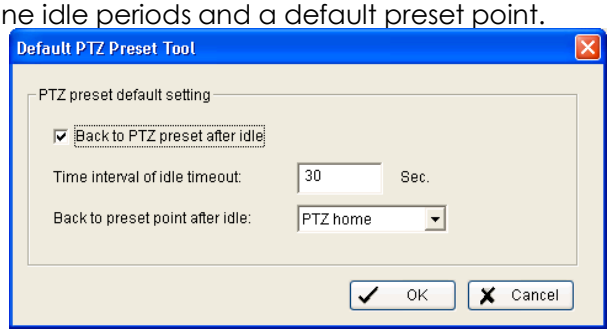
Basic Setting: Select the camera model, com port, baud rate, and address according to your PTZ camera.

Note: If the camera model is an IP PTZ camera, you can work PTZ function directly without the com port, baud rate, and address settings.

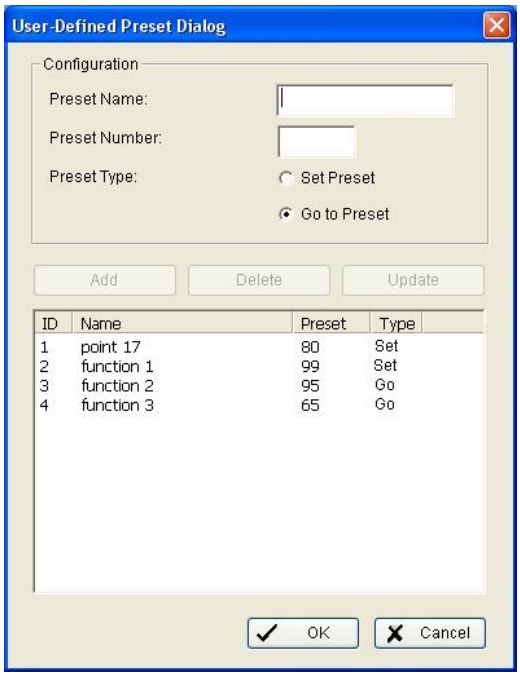
Advanced Setting: You may setup the pan speed, tilt speed, zoom speed and auto pan speed. Adjust the settings by dragging the bars.

Miscellaneous:

- Patrol Group: You can setup the Patrol Group, please see page 29 for detail.
- Default PTZ Preset: By enabling this function, the PTZ camera will automatically go back to a default preset point when no PTZ commands are under action. To enable this option, check "Back to PTZ preset after idle" and define idle periods and a default preset point.



- User-Defined Preset: User-Defined Preset for the analog speed dome can trigger the extra-function of the speed dome itself, for example auto-tracking, login menu of camera…etc. You can refer to the detailed description of each analog speed dome on its user manual.



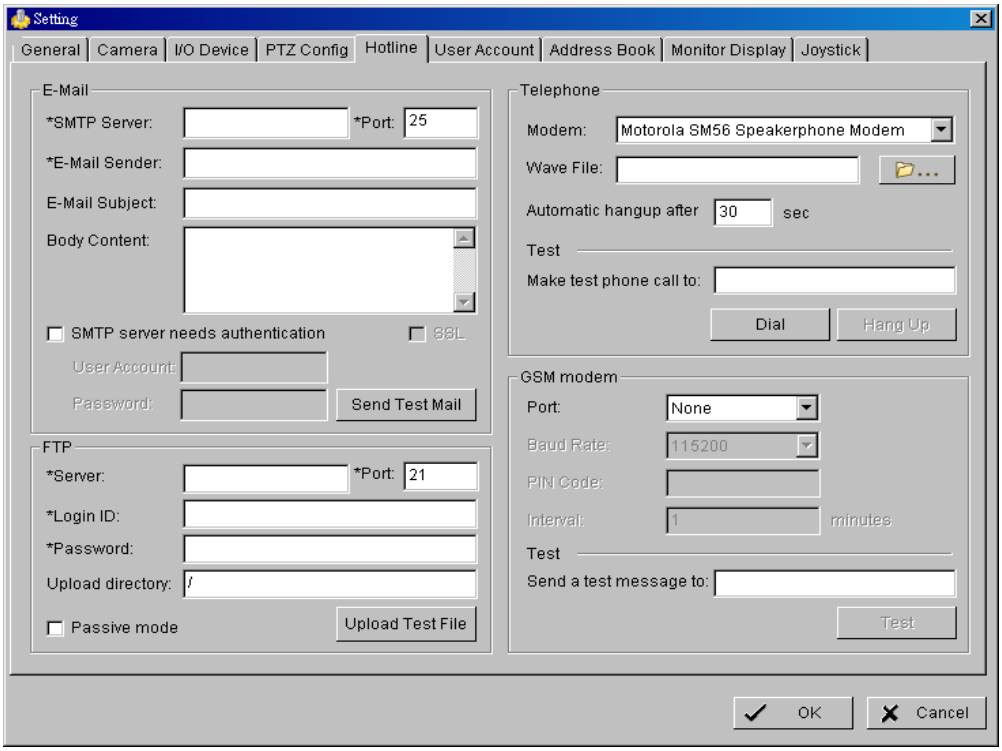
Step1: Type the Preset Name.

Step 2: Type the Preset Number.

Step 3: Select the Preset Type.

Step 4: Press the buttons to Add, Delete, or Ute preset setup.

5.5 Setting – Hotline



of Configure the settings various contacts or devices, including E-mail, FTP, GSM modem and Telephone calls which will be triggered upon event detection.

E-mail: Input the following information: Server, Port, and Sender's E-mail address, E-mail's subject title, Body content and SSL option for encrypted transmission. Click on the Send Test Mail button to test the settings.

Note: * indicates mandatory fields

FTP: Input the following information: server, Port, Login ID, Password, and Upload directory, according to your FTP type to enable/disable Passive mode. You may click on the Upload Test File button to test the settings.

Note: * indicates mandatory fields

Telephone: Select the modem that the system is going to dial the info call with, and then insert the phone number you want to dial to. (A modem is required for voice transition.)

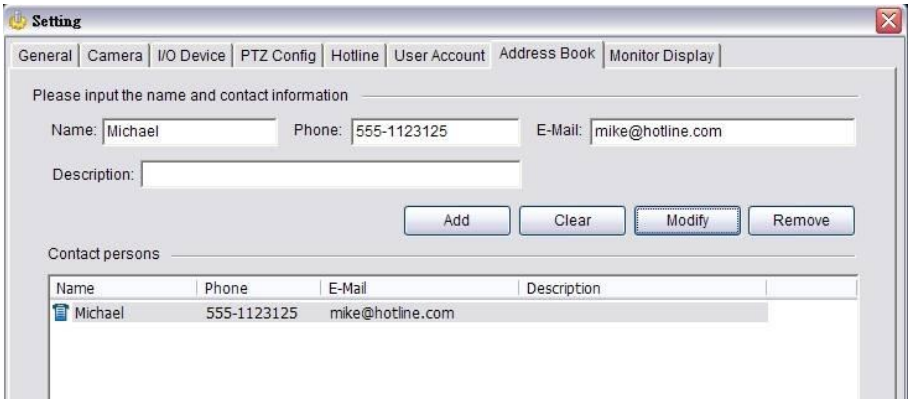
Note: 1. You must use a modem with voice capability.
2. You may select a Wave format file; it will be played in the phone to alarm the person who picks up the phone call.

GSM modem: Set the Port and Baud Rate of the GSM modem device, and then enter PIN code. You can setup the interval of send SMS message. You may click on Test to send a test SMS message.

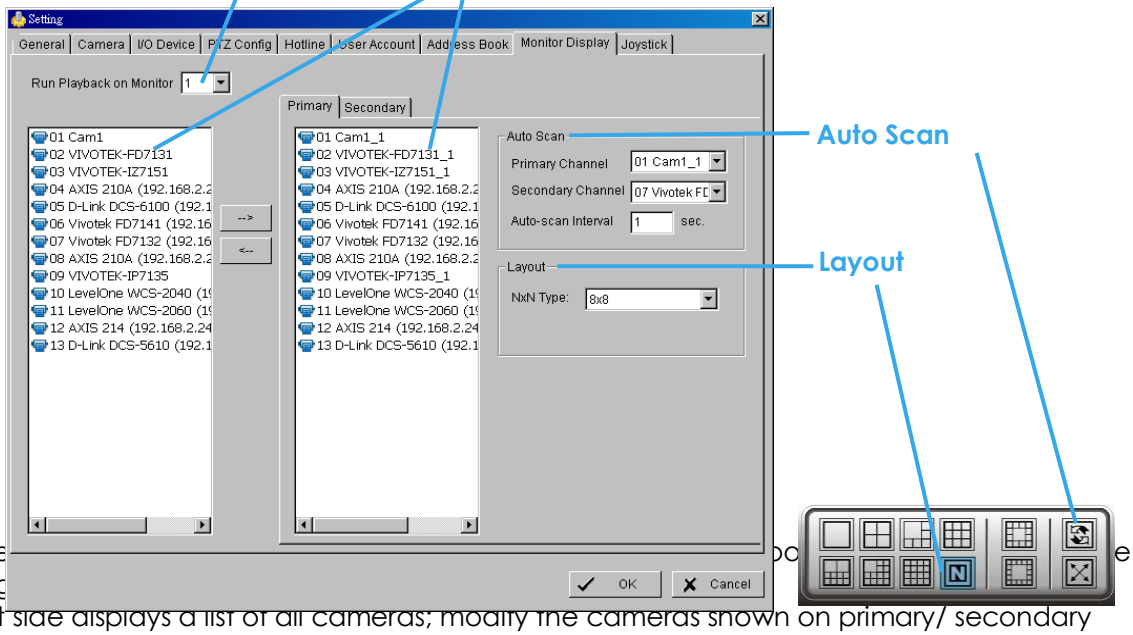
Note: The interval is set to fix a minimum time period between two SMS messages. If set as 60 min, the SMS between 60 min would be deleted and not sent to user.

5.6 Setting - Address Book

Manage the address book from which you may send out a phone call or an E-mail when an unusual event is detected.



5.7 Setting – Monitor Display



Playback Option: Exe…bo…e display setting

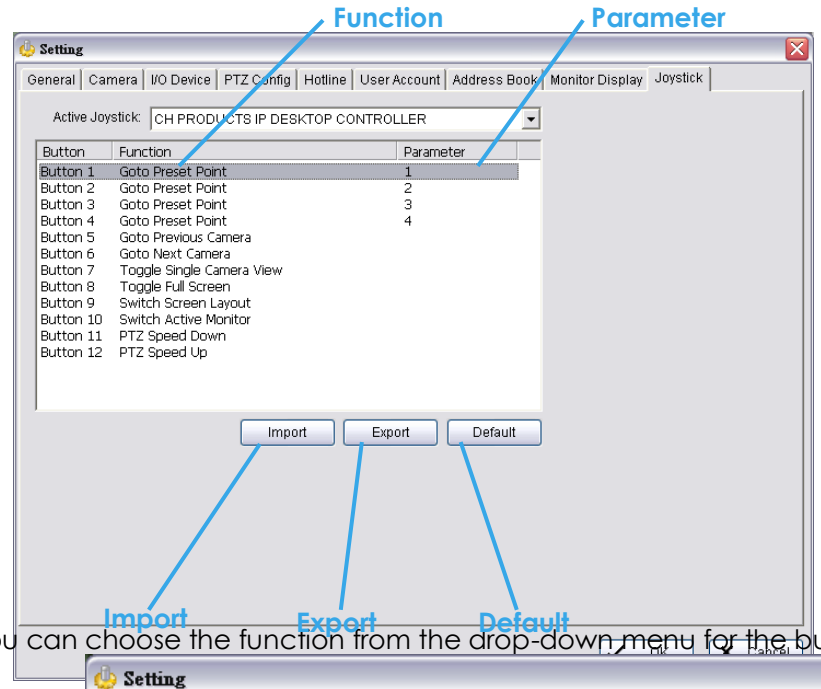
Cameras List: The left side displays a list of all cameras; modify the cameras shown on primary/ secondary monitor in the right window.

Auto Scan: Activate auto scan to rotate the channels/ cameras on the display screen. For instance, you may select to show only 4 sub-screens on the main console while having 16 channels connected to the system. With auto scan function, you will be able to see all 16 channels by turns. You can set up a primary channel that will always be on the screen and a secondary channel that has secondary priority.

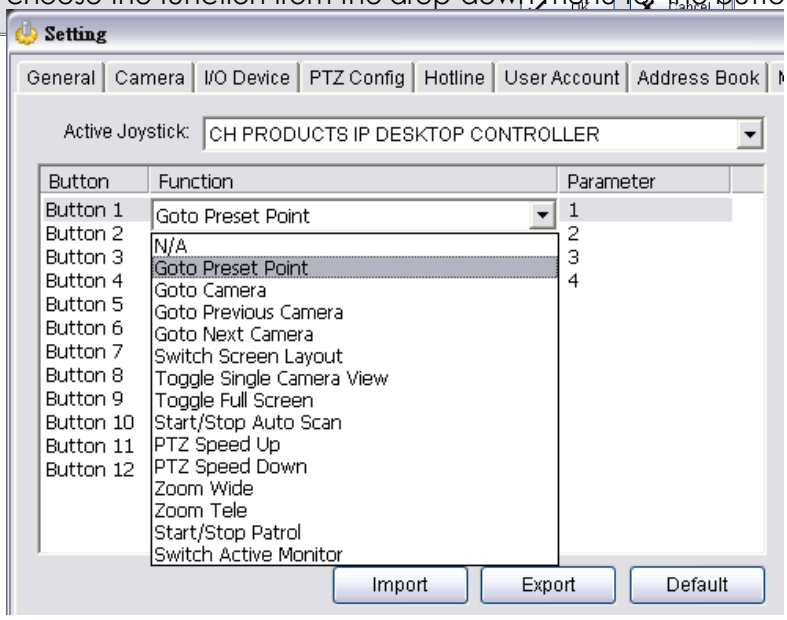
Layout: Choose the number of divisions for NxN division on the Main Console screen.

5.8 Setting – Joystick

* Note: This function is not available under NUUO NVR Lite license.



Function: You can choose the function from the drop-down menu for the button of the joystick.



Note: Following is a complete list of all functions:

1. N/A
2. Goto Preset Point (including Home)
3. Goto Camera
4. Goto Previous Camera
5. Goto Next Camera
6. Switch Screen Layout
7. Toggle Single Camera View
8. Toggle Full Screen
9. Start/Stop Auto Scan
10. PTZ Speed Up
11. PTZ Speed Down
12. Zoom Wide
13. Zoom Tele
14. Start/Stop Patrol
15. Switch Active Monitor

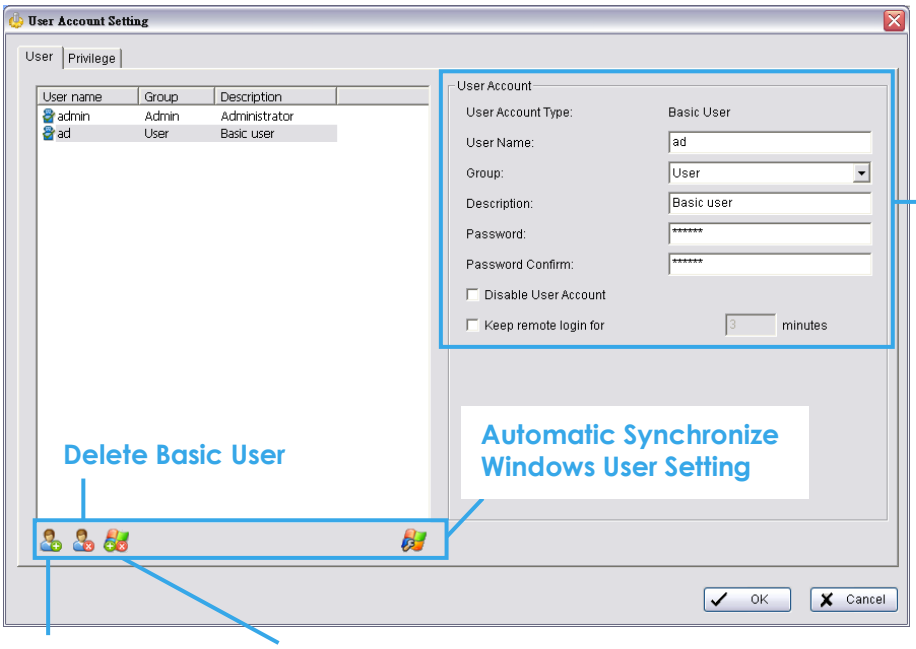
Parameter: You can choose the parameter of the function from the drop-down menu.
Default: You can set the default setting for the joystick.
Export: You can export the setting of the joystick.
Import: You can import the setting of the joystick.

5.9 User Account Setting

Configure all user accounts under this settings page.
Note that this page is only accessible by the default admin account.

User

Add new users and modify or remove existing users.
You may choose to add **Basic Users** directly in the system or import users from MS Active Directory (MSAD) as **Windows Users**.
*Note: Please remember to add your Windows login AD user account to the local PC's administrators user group. Main Console can be launched by administrators only.



Basic Users

Click on to add a new Basic User. Click on to delete an existing Basic User.

Create and modify the content of each user account under **User Account** Setting:

- Name: Insert the user name.
- Group: Assign the group for each user.
  There are 3 default privilege profiles of account groups:
  Admin: Have privileges of all system functions and devices, except adding/deleting/modifying privileges of other users.
  Power User: Have limited privileges of system functions and complete privileges of assigned devices.
  User: All the privileges of system functions are forbidden. Users can only manage assigned devices.

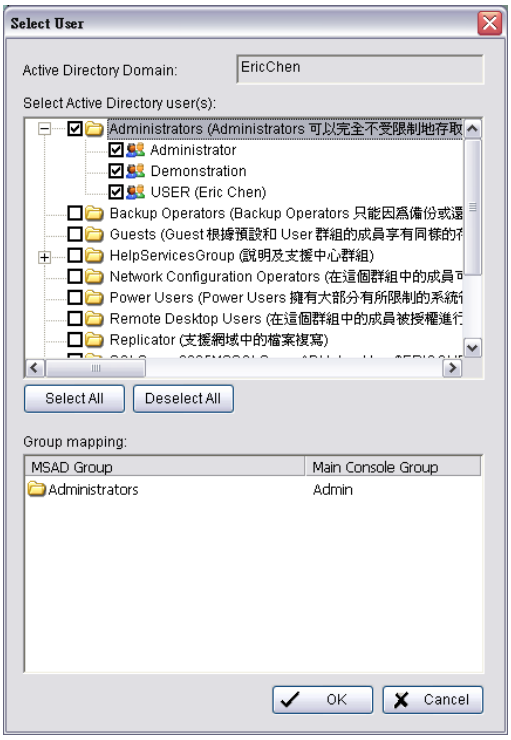
- Description: Insert the description related to each user.
- Password: Insert the password assigned to each user.
- Password confirm: Insert again to confirm the password.
- Disable User Account: By checking this option, the account's access to the system will be blocked.
  Disabled accounts will be marked with a cross on the icon .
  Note: Only the default admin account cannot be disabled.
- Keep remote login for ___ minutes: Insert the duration to auto kick out account after logging in from Remote Live Viewer or Remote Playback server.

Windows Users

Click on to add/remove/synchronize Windows Users.

Select User

Check users or folders under **Select Active Directory user(s)** and click **OK** to add Windows Users.



Click **Select All** to check all available users and folders, or click **Deselect All** to uncheck all users.

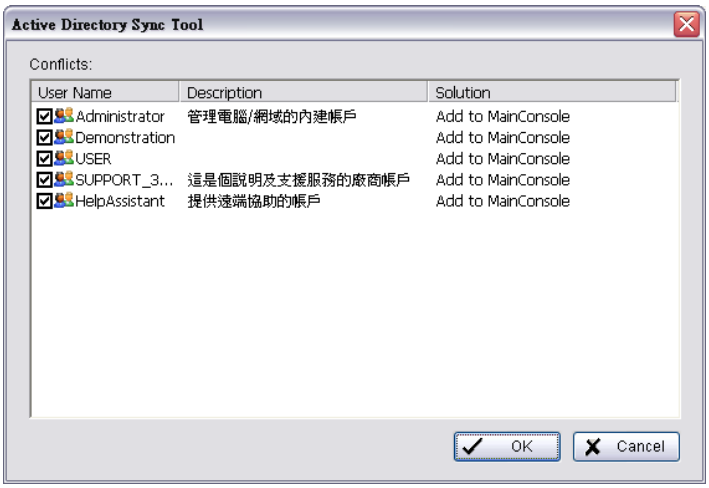
Group Mapping:
Selected Windows users will be grouped according to default mapping:

MSAD Group	Main Console Group
Administrator	Admin
Guest	User
Other	PowerUser

You may modify group setting for each user later under the User Account page.

Click **OK** when you are done adding Windows users.

Synchronization results will be displayed for confirmation.



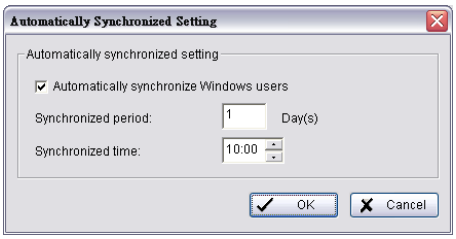
Please refer to the default solution for all conflicts:

- New accounts added from AD domain: **Add to Main Console**
- Accounts from AD domain removed: **Delete from Main Console**
- Account description modified: **Ute description**
- Encountered admin account: **Skip admin account**
- Newly added account from AD domain conflicts with existing basic user account: **Replace basic user account**

Uncheck items to skip applying solution to Main Console user account settings.
For example, if you uncheck an "Add to Main Console" solution, the new account will not be added to Main Console's user account list.

Automatic Synchronize Windows User Setting

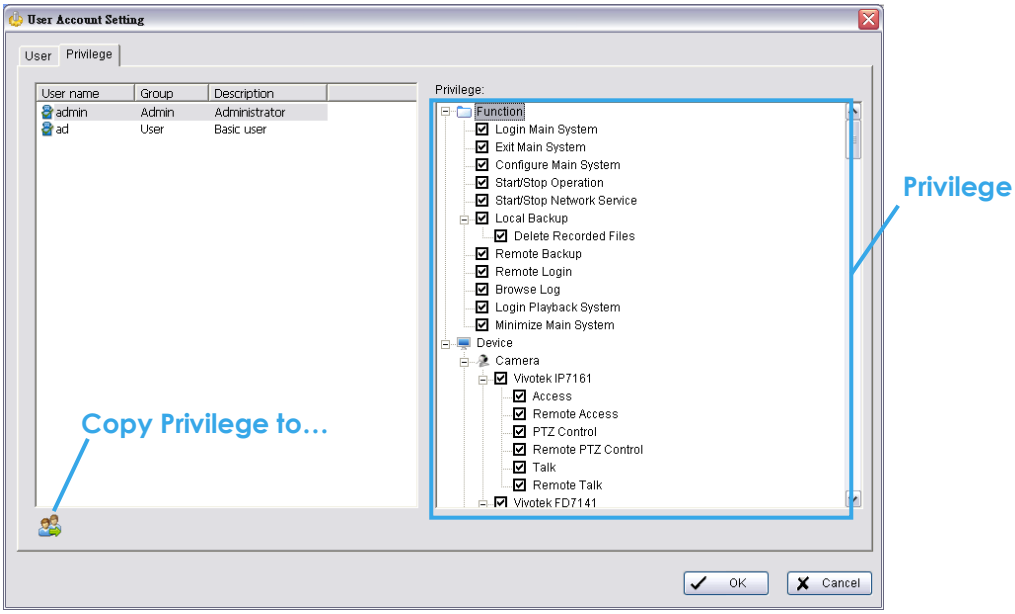
Instead of manually adding and uting Windows users, you may also configure the system to automatically synchronize all Windows users at a specific period. Click on to do this.



- Automatically synchronize Windows users:
  Check to enable automatic synchronization.
- Synchronized period:
  Configure the synchronization to start every ___ days.
- Synchronized time:
  Define at what time the synchronization should start.

Note: Auto synchronization will apply all default solutions to conflicts.

Privilege: Define detailed privilege of functions and devices for each user account.



- **Function:** Configure settings, operation related, system configuration, and privilege of remote access.*
- **Device:** Configure device privileges of camera, digital output and metadata sources in Main Console and client applications.

Copy Privilege to…: Click on this button to copy privilege settings of any account to another.

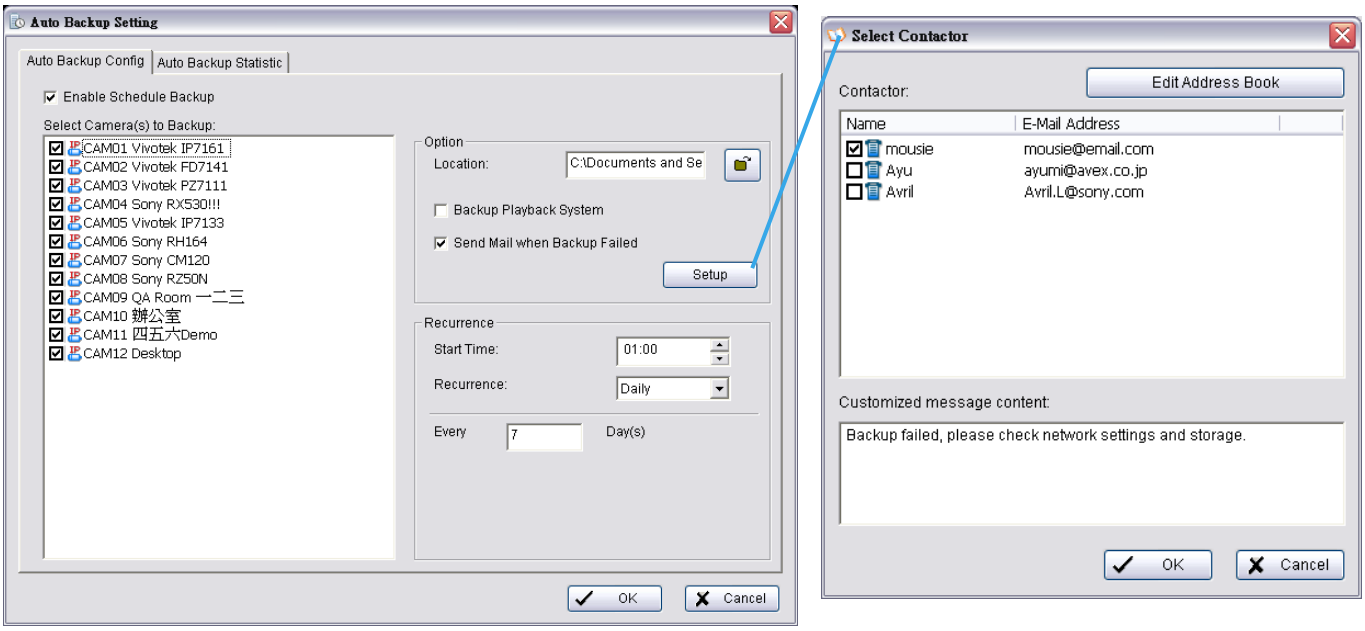
Note: The privilege of default admin account is not configurable.
"Setup TV-Out function" is not available if there is no SCB-7108/7116 card installed.

5.10 Auto Backup Setting

Configure your system to automatically backup video data on a daily or weekly basis.
* Note: This function is not available under NUUO NVR Lite license.

Auto Backup Config: Configure auto backup settings on this page.

- **Enable Schedule Backup:** Check to enable backup process.
- **Select Camera(s) to Backup:** Choose all channels to backup.
- **Option**
  Location: Define backup route.
  Backup Playback System: Check to backup the playback application with each process.
  Send Mail when Backup Failed: Check to receive an email notification when backup fails. Click **Setup** for email configuration. Select one or more contacts from the address book and configure customized message content.
  Recurrence: Choose start time and Recurrence: Daily or Weekly modes.



Auto Backup Statistic: Shows statistics on current or latest backup status. Click **Refresh** to ute.

- Current Backup Status:
  Idle: not active or awaiting next backup process
  Backup…: Backup under process
  Retry…: Previous backup failed, awaiting retry
- Next Backup Start Time: Scheduled time for next backup process
- Next Retried Process Time: Scheduled time for next backup retry process. N/A when status is Idle or under Backup.

- Last Backup

Last Backup Start: Time and date last backup started.
Last Backup Stop: Time and date last backup was complete or had failed.
Backup Video Period: Total time spent on last backup process.
Backup Size: Total file size of last backup.
Backup Result:
Completed: Last backup succeeded.
Failed: Last backup failed, under retry process.
Timeout: Last backup failed, retry process timed out.

5.11 License Manager

The license of the software should be registered first before operating the former version of Intelligent Surveillance System.

Execute the License Management Tool in Config >License Manager to activate the license from dongle or serial number allocated with the software package, or de-activate the license then bring it to another PC to activate it again.
Note: Please refer to page 123 for the detail setting of License Management tool.

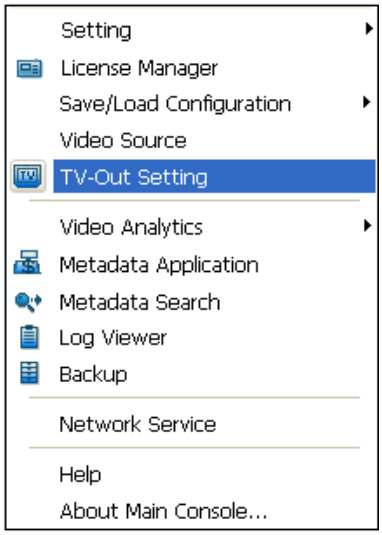
5.12 Save/ Load Configuration

The Save/ Load Configuration function allows system users to save any specific setting as a CFG (config) file. You may save several different CFG files at a time.
Save Configuration: To save a specific setting, go to Config - Save/Load Configuration - Save. In the popup window, type in the file name and then save it as a CFG file.
Load Configuration: To load a specific setting, go to Config - Save/ Load Configuration - Load. In the popup window, go to the directory that you saved the CFG files at, select any one of them and then click OK to load the file.
Note: Main Console will be automatically shut down after loading a new configuration. Restart Main Console manually.

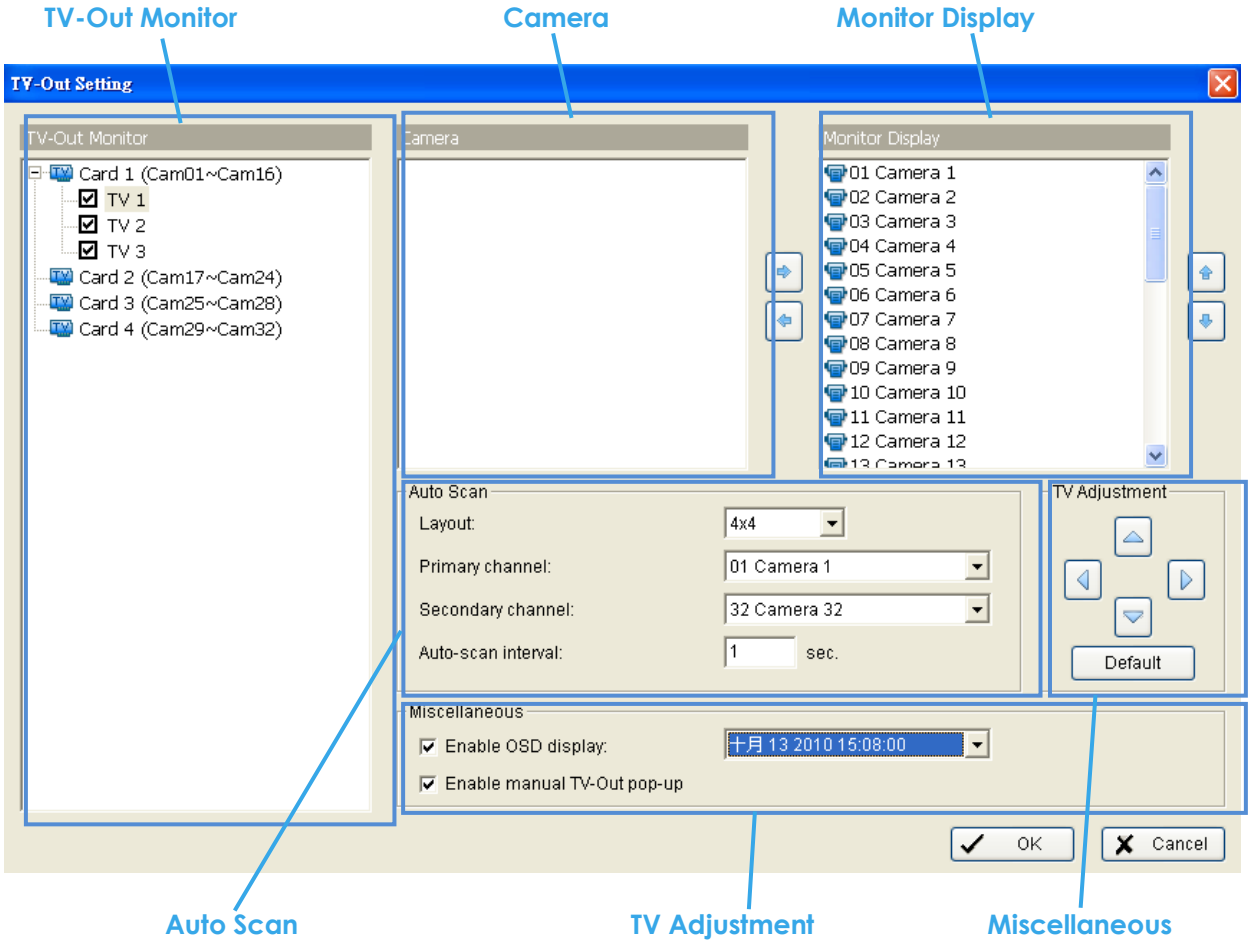
5.13 TV-out Setting

* Note: This function is not available if there is no SCB-7108/7116 card installed.

After installing a SCB-7108/7116 card, a new feature will be added in Main Console automatically, click on 「General Setting」and select 「TV-Out Setting」.



「TV-Out Setting」 window appears.



TV-Out Monitor: Display all SCB-6000/7000/7100 series cards installed in this computer, choosing SCB-7100 series one to click on for TV-out function then users can start to edit the right parts.
Camera: Displays a list of all cameras.
Monitor Display: Modify the cameras shown on **Monitor Display** in the right window. Show the video cameras

which are playing in sequence. Choose the cameras in **Camera** (Multiple choice), then click, the system will have the selected cameras show below **Monitor Display**. If user wants to remove the cameras, select the cameras then click, the system will remove from the list.

Auto Scan: Set "**Layout**", "**Primary channel**", the form of "**Secondary channel**" and the interval time of "**Auto-scan interval**".

TV Adjustment: Users can adjust the position of TV-out screen by this function. Click Default to apply all the settings back to default value.

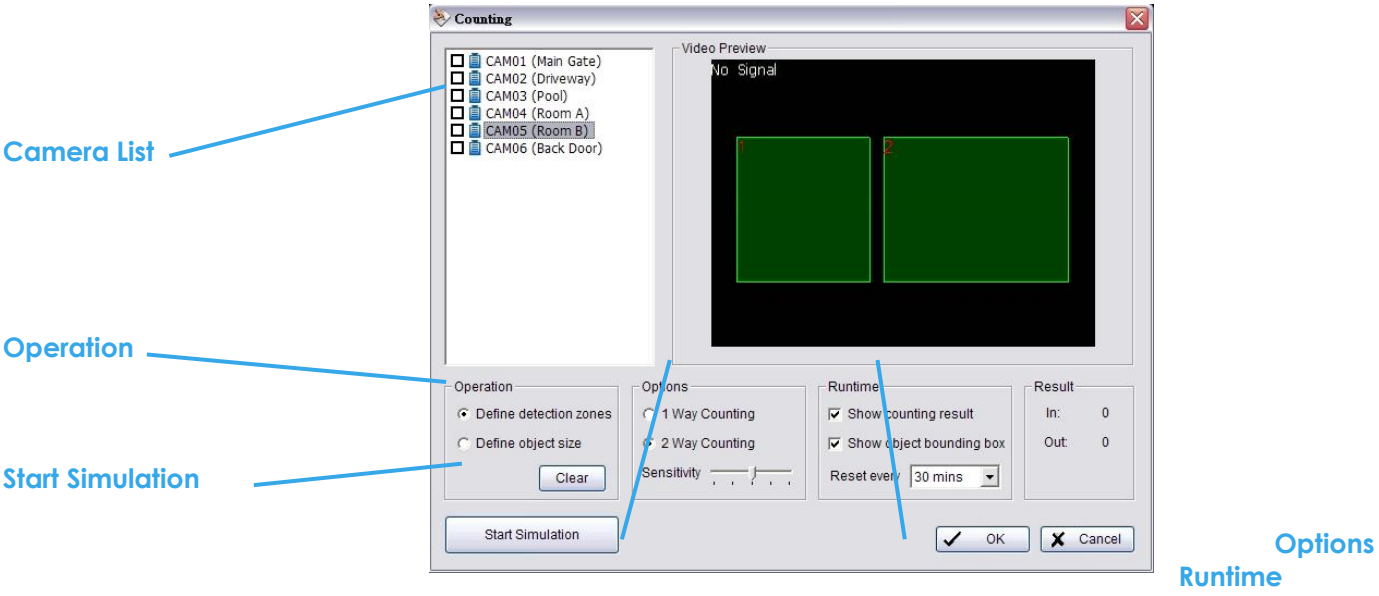
Miscellaneous: "**Enable OSD display**" and "**Enable manual TV-Out pop-up**" settings.

5.14 Video Analytics - Counting Application

Count objects, people or vehicles passing through pre-defined detection zones.

To access this page, login with admin account or user account with privilege of configuring main system.

* Note: This function is not available under NUUO NVR Lite license.



Camera List: Select which camera would enable counting application.

Operation:

Define detection zones: Defined the detection zona.

Define object size: Defined the size of the object to count.

Options: 1Way Counting will take objects going from Region 1 to Region 2 as one count. In **2 Way Counting** mode, it counts either going from Region 1 to Region 2 or from Region 2 to Region 1.

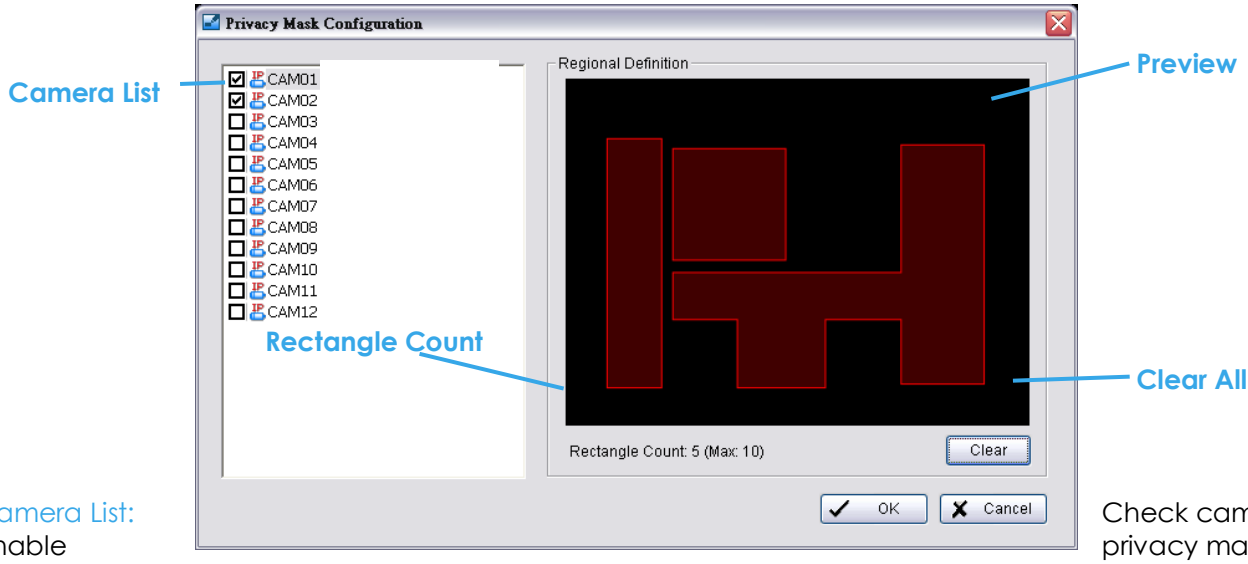
Runtime: Check the boxes to **show the counting result** on the screen and/ or **show object bounding box**, which draws the shape of the object that the system detects in red squares. You can choose from the drop-down menu of how long you want to **reset** the counting number.

Start Simulation: Click to test the setting.

5.15 Video Analytics – Privacy Mask

Mask your video with dark areas to protect your privacy.
To access this page, login with admin account or user account with privilege of configuring main system.
* Note: This function is not available under NUUO NVR Lite license.

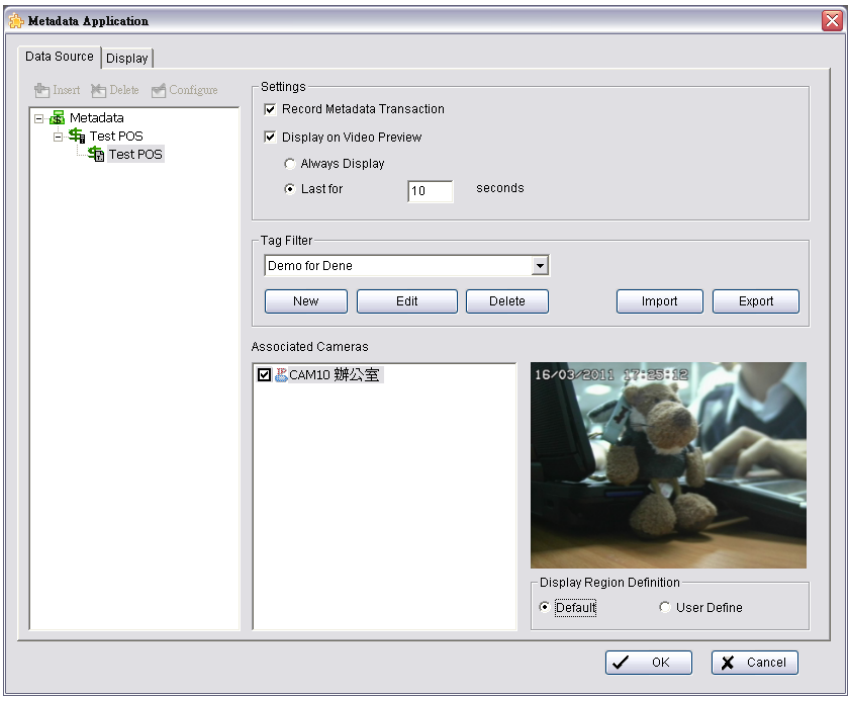
Privacy mask settings will apply to local and remote live view, web live view, local playback, remote playback and web playback.



Camera List: Check cameras to enable privacy mask.
Regional Definition: Click and drag to define privacy masked areas.
Rectangle Count: Maximum 10 rectangles can be drawn to define privacy masked areas.
Clear: Click to clear all rectangles.

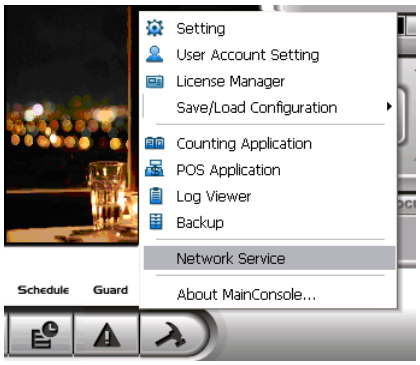
5.16 Metadata Application

* Note: This function is not available under NUUO NVR Lite license.
The Metadata application now supports three different data types, including POS, LPR and access control. This tool can be used to configure these devices. Note that you will need additional licenses to use these features. Instructions on license activation can be found on page 123. Refer to the Metadata User Manual for more details.



5.17 Network Service

There are 5 types of network services:
Live streaming server, Remote playback server, 3GPP service, Remote Desktop, and Central Management Service. From the Main Console, go to Config - Network Service to obtain the Network Service panel.



An icon shows for each network service in the information window of Main Console when started. See 1.1 User Interface Overview for details.

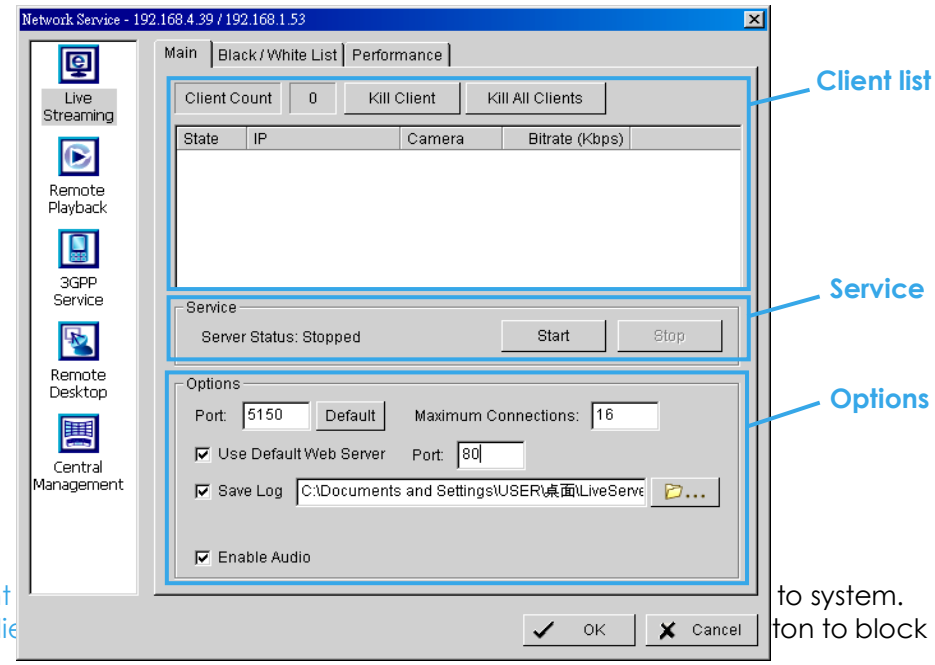
	LiveView	Playback	3GPP	Desktop	CMS
Start					
Stop					

5.17.1 Live Streaming Server

When starting the live streaming function of computer, the system allows remote users to log in to the specific computer and view cameras that are connected to it. As system administrator, user could be able to monitor these accounts in order to maintain the system efficiency.

Main

On Live Streaming Server panel, administrator can see all the clients who are currently logging in to the computer and watching the live video from the remote side.



Client list:

- Client … to system.
- Kill Clie… ton to block the client from your client list.
- Kill All Clients: Click on this button and all clients are blocked from logging into your system.

Service:

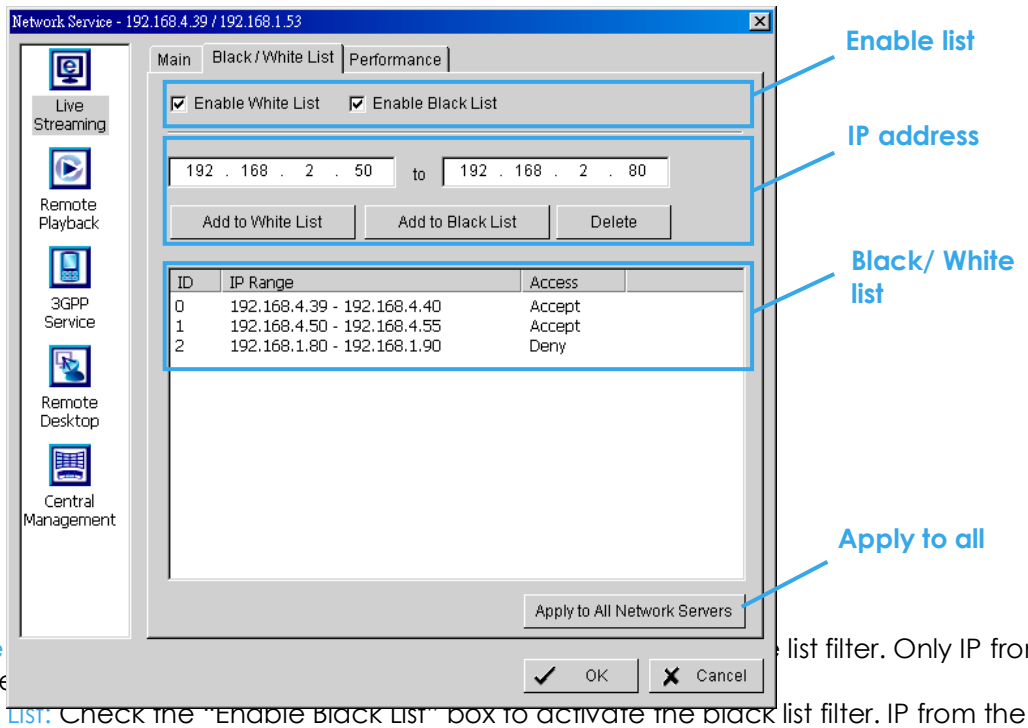
- Server Status: Click on Start/Stop to turn on/off this option.

Options: Adjust the setting only when the server is stopped.

- Port: Assign a port for the clients to connect to your system via Remote Live Viewer. Default port is 5150.
- Maximum Connections: Number of connections that are allowed to connect to the system. Default is 16 channels and maximum is 128, one camera video counts as one connection.

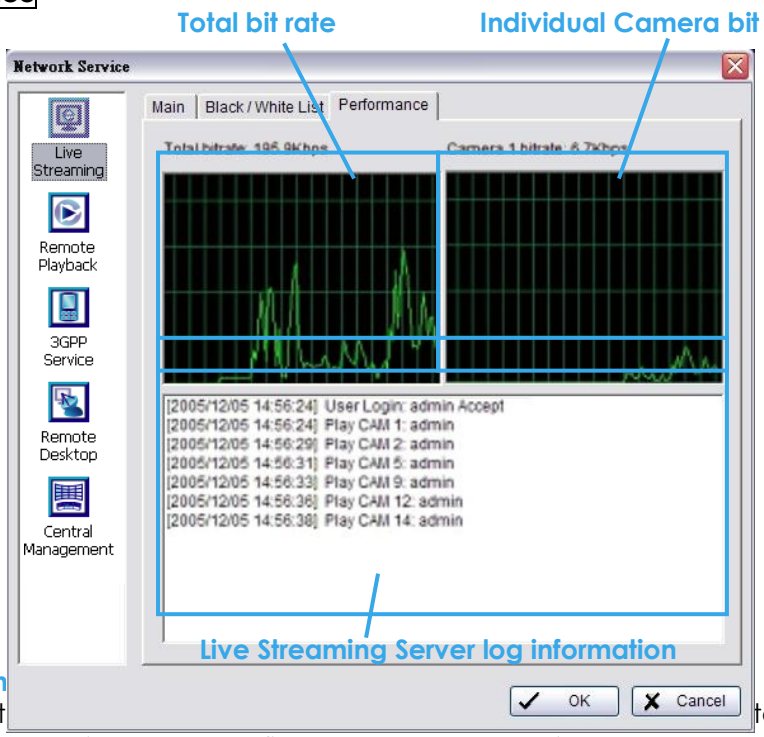
- Use Default Web Server: Activate the Web server by checking the box; clients will be able to watch live video via Internet Explorer. The port for live streaming server is set to 80 by default.
  Note: This must be checked in order to access system via IE*.
- Save Log: Save the log information at appointed folder.
- Enable Audio: Select this option to enable the audio transmission along with video stream.

Black / White List



- White list: Check the "Enable White List" box to activate the white list filter. Only IP from the white list is allowed.
- Black List: Check the "Enable Black List" box to activate the black list filter. IP from the black list will be blocked.
- IP Address: Enter an IP address into the IP address field on the left. To add an IP address range to the system, enter 2 sets of IP address to indicate a series of IP(s).
- Add/Delete: Add the IP(s) onto the list or remove it from the list.
- Apply to All Network Servers: Apply the settings to both the live streaming server and the remote playback server.

Performance

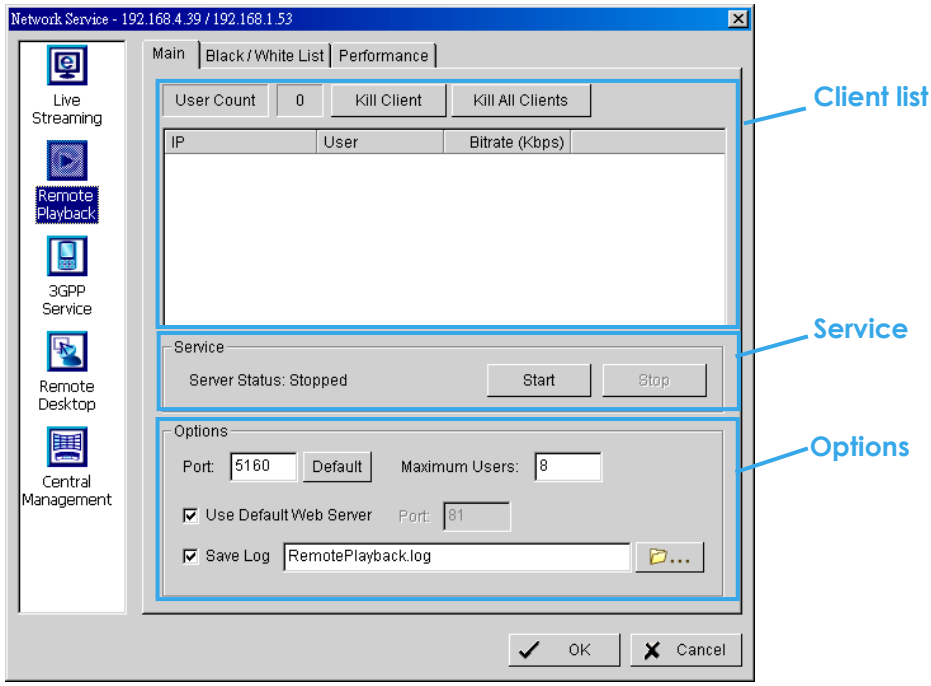


5.17.2 Rem

When start te users to log in to the specific computer and withdraw data files that are stored on it. As system administrator, user could be able to monitor the accounts logging in to maintain the system efficiency.

Main

On Remote Playback Server panel, administrator can see all the clients who are currently logging in to the computer and watching the playback video from the remote side.



Client list:

- User Count: Show the number of users that are connecting to system.
- Kill Client: Highlight an IP address and click on the "Kill Client" button to block the client from your client list.
- Kill All Clients: Click on this button and then block all the clients logging to your system.

Service:

- Server Status: Click on Start/Stop to turn on/off this option.

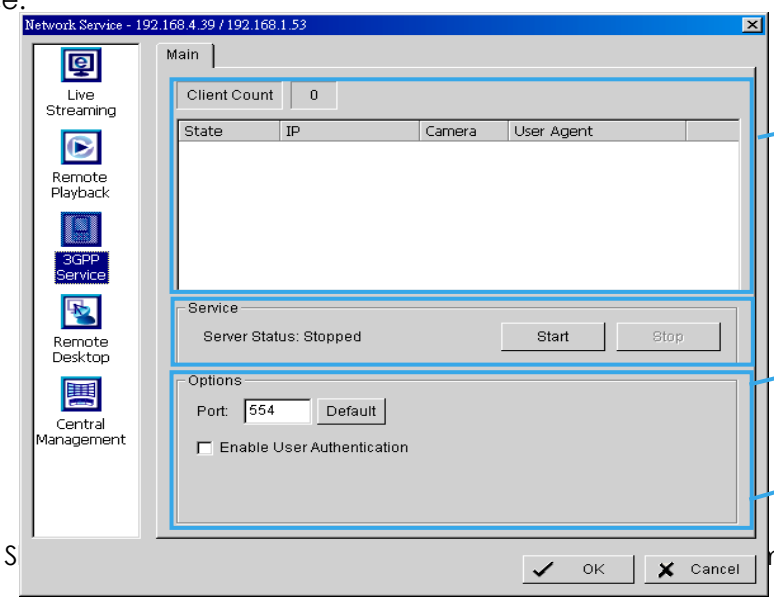
Options: Adjust the setting only when the server is stopped.

- Port: Assign a port for the clients to connect to your system via Remote playback server. Default port is 5160.
- Maximum Users: Number of connections that are allowed to connect to the system. Default is 8 users and maximum is 64.
  Note: One user counts as one account that is logging in to the server.
- Use Default Web Server: Activate the Web server by checking the box; clients will be able to watch live video via Internet Explorer. The port for live streaming server is set to 80 by default.
  Note: Must check this item for system access via IE*.
- Save Log: Save the log information at appointed folder.

Black / White List and Performance - Please refer to Live Streaming Server section

5.17.3 3GPP Service

When starting the 3GPP service function of your computer, the system allows remote users to log in and view cameras that are connecting to it with 3GPP supported mobile phone. See Appendix A for more details about 3GPP Service.



Client list:

- Client Count: S n.

Service:

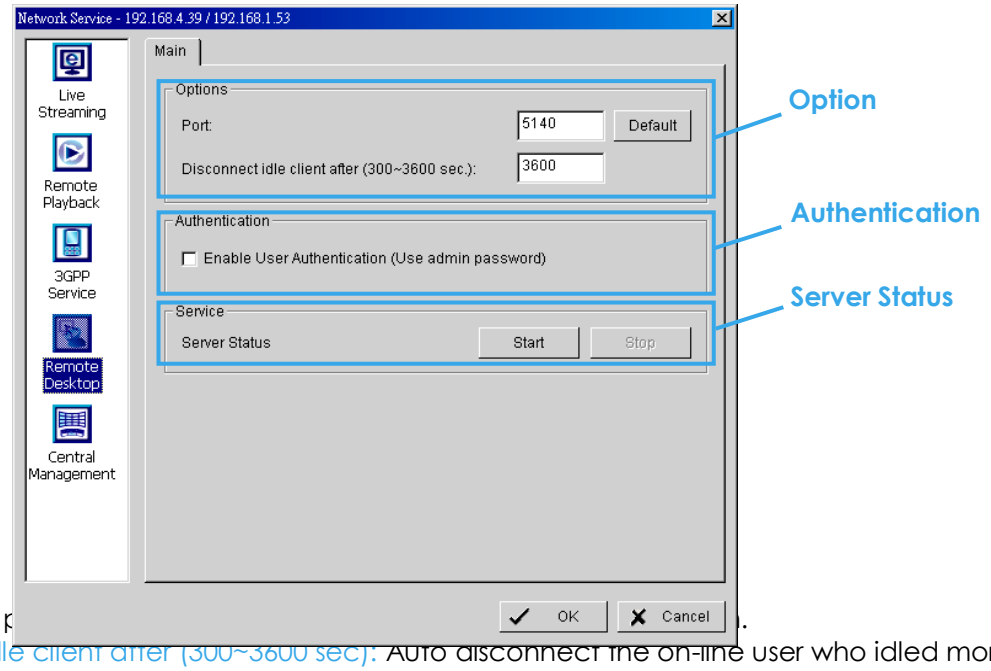
- Server Status: Click on Start/Stop to turn on/off this option.

Options: Adjust the setting only when the server is stopped.

- Port: Assign a port for the clients to connect to your system via 3GPP Service. Default port is 554.
- Enable User Authentication: User need to insert the username and password to login to the 3GPP server and view the video stream.

5.17.4 Remote Desktop

When starting the Remote Desktop, the system allows remote users to use NUUO Remote Desktop Tool to login and configure system. See Appendix B to install and use this tool.



Options:

- Port: Assign a p .
- Disconnect idle client after (300~3600 sec): Auto disconnect the on-line user who idled more than set period.

Authentication:
Enabling this option would only allow admin account to use NUUO Desktop tool to login system.

Service:
- Server Status: Click on Start/Stop to turn on/off this option.

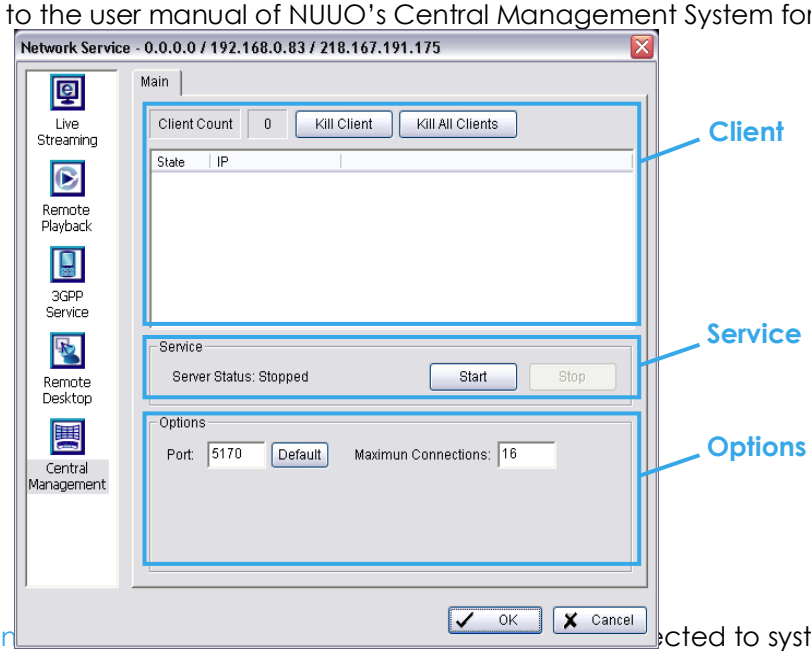
5.17.5 Central Management Service

* Note: This function is not available under NUUO NVR Lite license.

This service only supports NUUO Central Management System (NCS). Having started the Central Management Service, Main Console sends event information to NCS and allows the NCS system to control I/O devices from a remote site.

Note:

1. To enable this action, go Guard >Action and select "Send to Central Server" to enable the action triggered by preference event.
2. Please refer to the user manual of NUUO's Central Management System for detailed information.



Client list:
- Client Coun ected to system.
- Kill Client: Highlight an IP address and click on the "Kill Client" button to block the client from your client list.
- Kill All Clients: Click on this button and then block all the clients logged in to your system.

Service:
- Server Status: Click on Start/Stop to turn on/off this option.

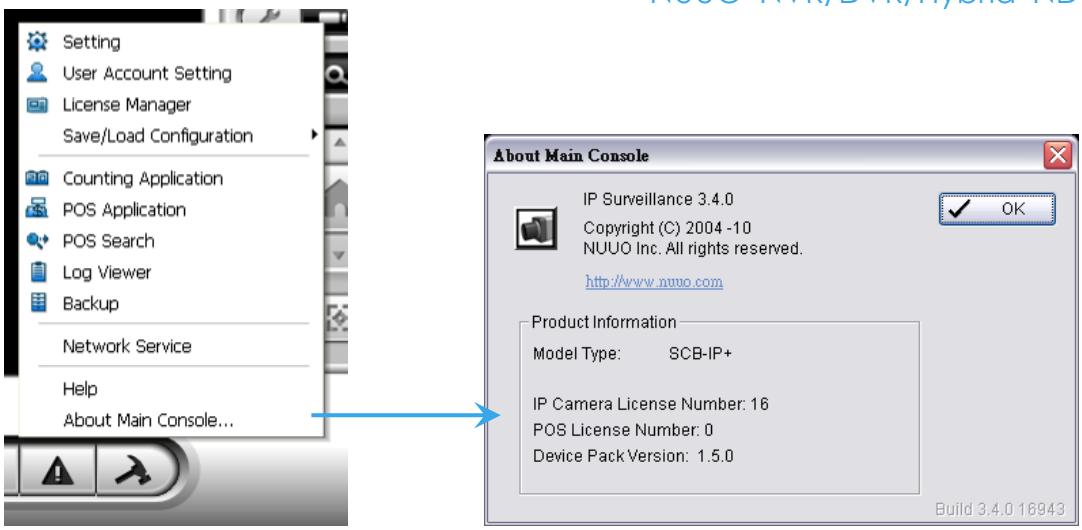
Options: Adjust the setting only when the server is stopped.
- Port: Assign a port for NCS System to connect Main Console system. Default port is 5170.
- Number of connections from NCS Servers that are allowed to connect to the system. The default is 8 NCS Servers and maximum is 16.

5.18 Help

Click Help to connect to FAQ of NUUO website http://support.nuuo.com/mediawiki/index.php/Main_Page .

5.19 About Main Console

Go to About Main Console for detailed system and license information.



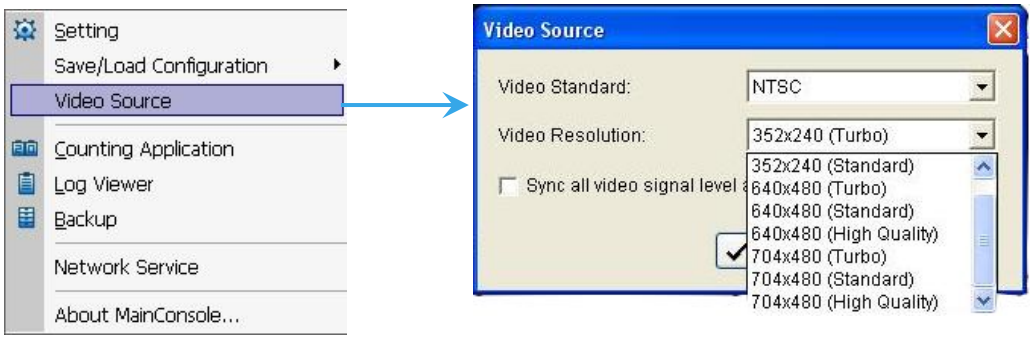
5.20 Video Source

Note: Not supported under Lite license

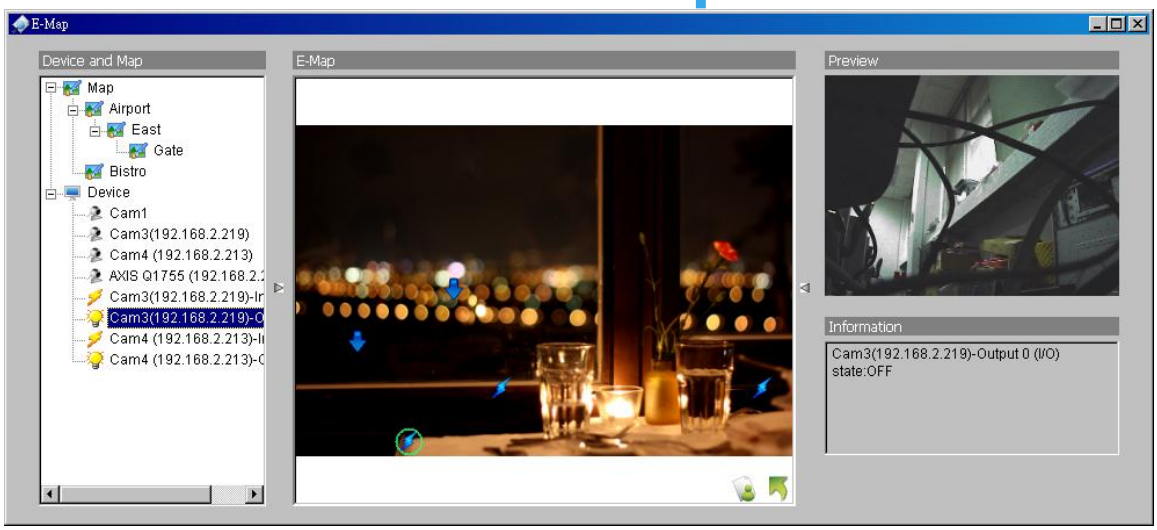
Step 1: Go to Video Source to adjust the Video Standard to NTSC or PAL.
Step 2: Adjust the maximum Video Resolution for all analog cameras.(MPEG4 only)

Video Resolution	Frame Rate	Quality
Turbo mode	Higher	Lower
Standard mode	Normal	Normal
High Quality mode	Lower	Higher

Step 3: For MPEG4, click "Sync all video signal level" after pressing OK to synchronize video signal level to the optimized display (Auto-gain control).
For HD, click "Sync all video signal level" to auto detect video resolution (1080P/720P)



6. E-Map



With E-Map, users can easily track the actual location of an occurring event, at the moment it happens.

The arrow and lightning icons on E-Map represent cameras and I/O devices. These icons will turn red once they are triggered by alarms.

To launch the E-Map application, simply click on Start and select Open E-Map from the start menu for the E-Map window.

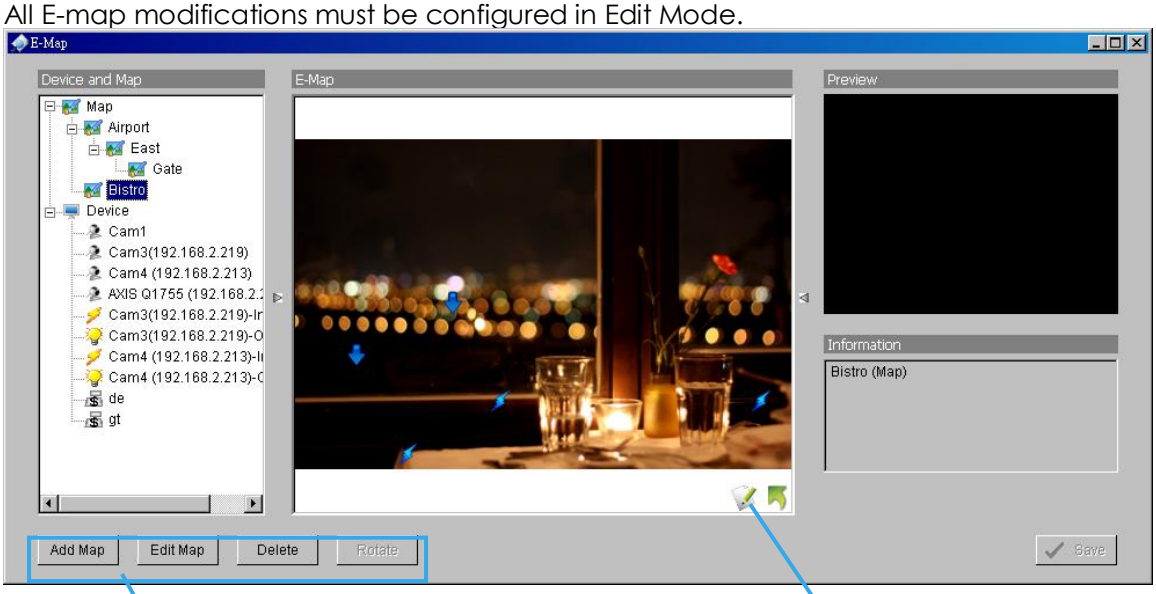
There are 2 modes available in the E-Map application:

Edit mode: Allows users to add/edit maps and indicators of devices. In Edit mode, the function buttons on the bottom of the window will be available. Please complete configurations before running E-map function for the first time.

Operate mode: All settings will be activated in this mode.

6.1 Edit Mode

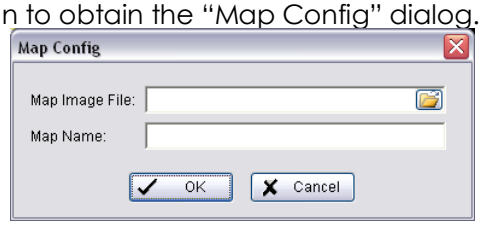
All E-map modifications must be configured in Edit Mode.



6.1.1 Add/Edit/Delete Map

Add E-Map:

Step 1: Click on the switch button to switch to Edit mode. Make sure all devices are connected and setup properly.
Step 2: Right click on the Map icon in device and map list to obtain the option menu to add map, or just click "Add Map" button to obtain the "Map Config" dialog.



Step 3: Select the map file and insert the map name. Click OK, and then the map you added appears in the tree structure of device and map list.
Step 4: The map indicator appears on the left-up corner of parent map. Drag it to the position you want on appointed map.

Edit E-Map:

Step 1: Make sure you are in Edit mode and all devices are connected and inserted.
Step 2: Right click on the "Map" icon to obtain the option menu to edit map, or just click the "Edit Map" button to obtain the "Map Config" dialog.
Step 3: Modify the required details, and then click OK to save configuration.

Delete E-Map:

Step 1: Make sure you are in Edit mode and all devices are connected and inserted.
Step 2: Right click on the "Map" icon to obtain the option menu to delete map, or just click the Delete button to remove appointed map from list.
Note: The root map cannot be deleted.

6.1.2 Add/Rotate/Delete Device Indicator

Add Indicator:

Step 1: Make sure you are in Edit mode and all devices are connected and inserted.
Step 2: Click on the "**Map**" icon to go to the desired map layer.
Step 3: Please make sure the map you want is displayed. Select device from the list and drag a device directly to the desired location on the map.
Note: Different devices are symbolized by different indicators.
- Camera indicator, - Digital Input indicator, - Digital Output indicator
- Access Control indicator, -POS indicator, - LPR indicator

Rotate Indicator:

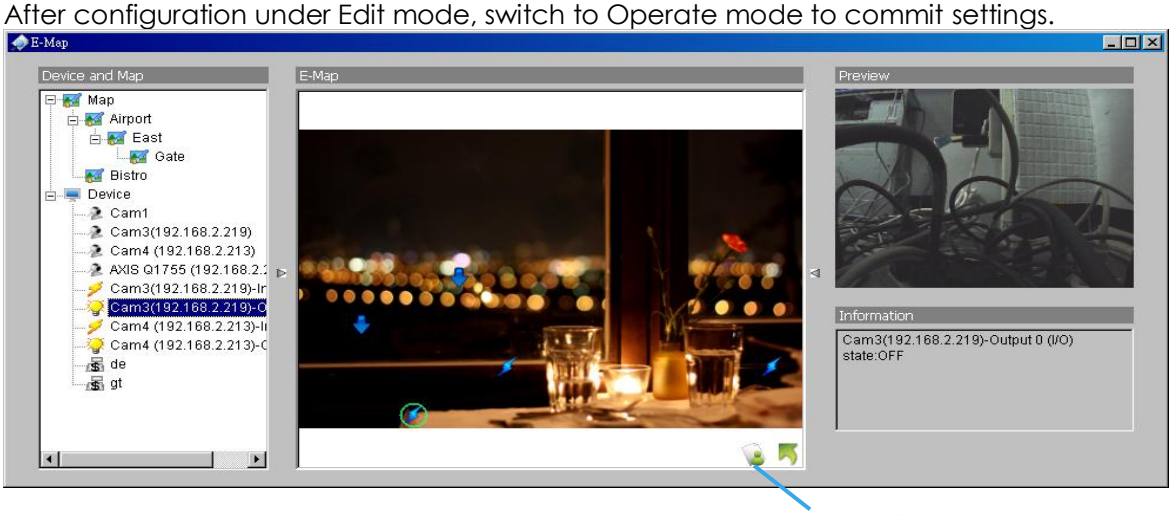
Step 1: Click on an existing camera indicator on your map under Edit mode. This camera indicator will be marked with a green ring .
Step 2: Each click on the Rotate button rotates the indicator 45 degrees clockwise.
Note: Only camera indicators are allowed to be rotated.

Delete Indicator:

Step 1: Click on an existing camera indicator on your map under Edit mode. This camera indicator will be marked with a green ring .
Step 2: Click on the Delete button and the indicator will be gone.

6.2 Operate Mode

After configuration under Edit mode, switch to Operate mode to commit settings.



Operate mode/ Edit mode Switch button

6.2.1 Device and Map Tree list

This window will list all devices and map hierarchies; click device or map indicator to show related information on E-Map windows.

Map – Select the map you want to show on E-Map Window.
Camera – A preview of the selected camera will show in the preview window. The indicator, if previously created, will be highlighted on the map.
Digital Input/Output – Select to highlight the device with a green ring on the map and show status on Information window. If the Digital Input/Output is from an IP camera, the preview window will display live video of the camera.
Access Control/POS/LPR – Select to highlight the Access Control / POS / LPR device with a green ring on the map, and display live video of the first associated camera on the preview window.

6.2.2 E-Map picture

This window will show the map layer and indicators.

Device Indicator:

Select device indicators from the Device and Map Tree list for related information and to preview video.

Map indicator:

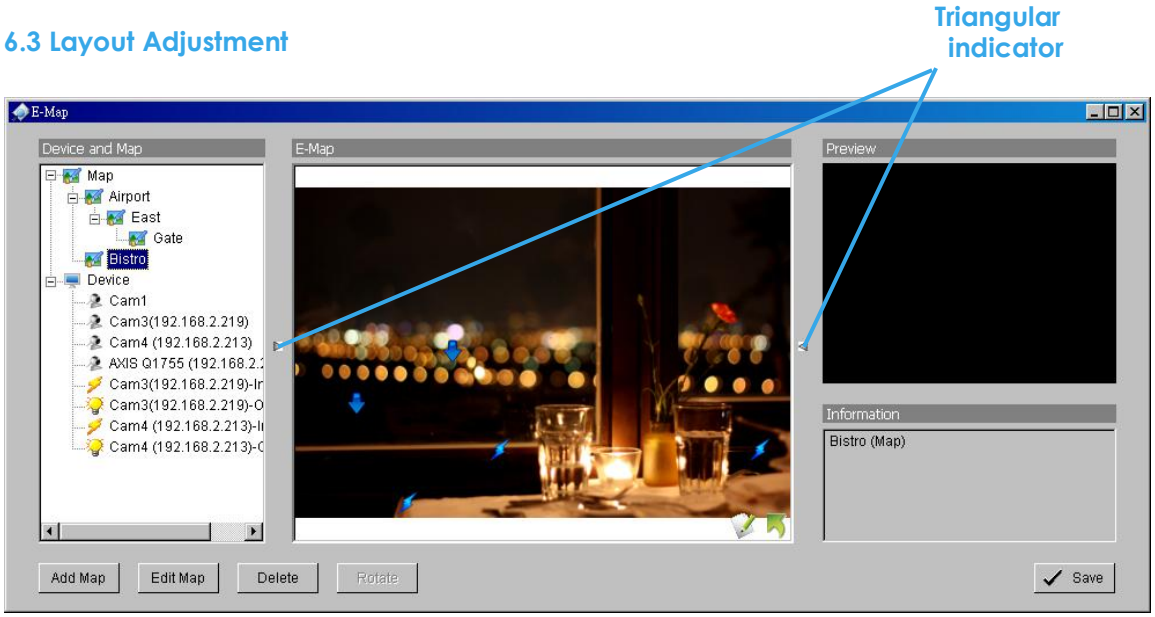
Selecting a map indicator will bring you to that map layer. To return to an upper layer, right click on the map and select **UP** or click on the map layer.

6.2.3 Information and Preview windows

This window will show the related information of each indicator.

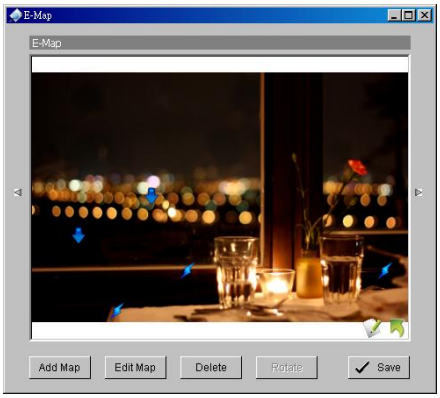
Map Info – Shows map name.
Camera – Shows camera name and connection status.
Digital Input/Output – Shows Digital Input / Output name and status (0 or 1).
Access Control/POS/LPR – Shows metadata device name, connection status, first associated camera name and connection status.

6.3 Layout Adjustment



Shrink the window:

Click on " ▶ ◀ Triangular indicators" to hide the "Device and Map" or "Preview" and "Information" windows on the right and left sides. Click again to go back to the default layout.



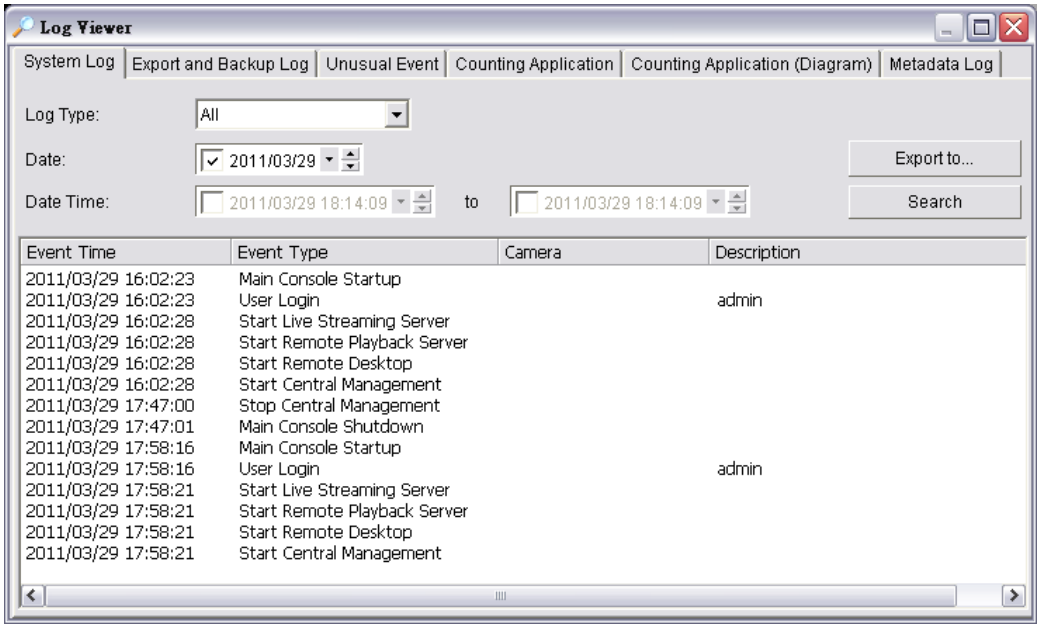
Full screen display:

For systems with dual monitor, users can view Main Console on the primary monitor, and view a full-sized E-Map on the secondary monitor.

Step 1: Click on " ▶ ◀ Triangular indicators" to hide the "Device and Map" or "Preview" and "Information" windows on the right and left sides.

Step 2: Click " " on the upper-right corner of the window for the full screen mode of E-Map.

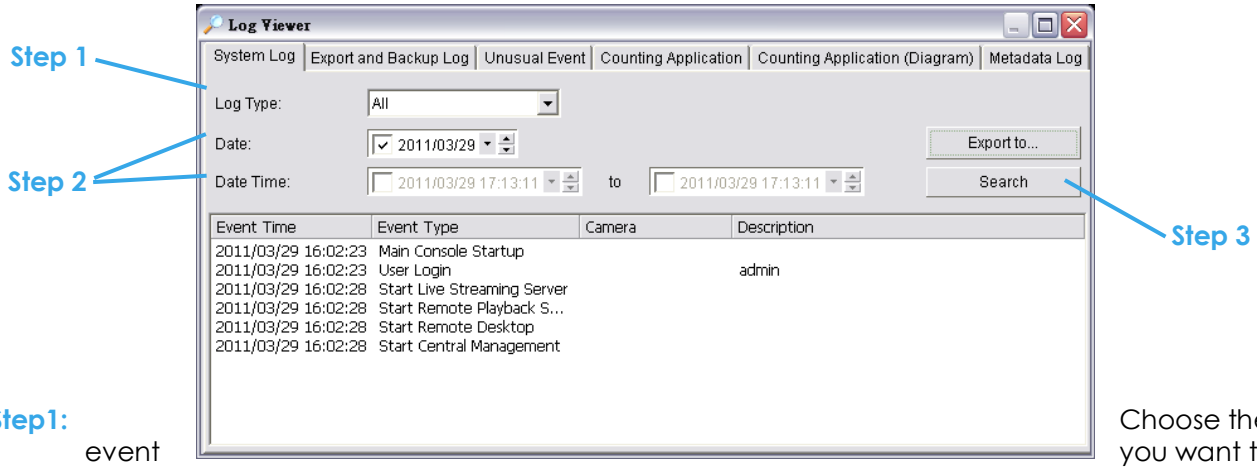
7. Log Viewer



View the history and export reports of unusual events detected by the Smart Guard System.

To launch Log Viewer, simply click on **Config** and select **Log Viewer** from the menu.

7.1 System Log



Step1: Choose the type of event you want to check or select **All** from the drop-down menu for all types of events. Select Log Type form the drop-down menu. There are in total 36 types of log types, including:

- ✓ Main Console Startup
- ✓ Main Console Shutdown
- ✓ User Login
- ✓ User Login Failed
- ✓ Start Schedule
- ✓ Stop Schedule
- ✓ Execute Recycle
- ✓ Enable Channel
- ✓ Disable Channel
- ✓ Start Smart Guard
- ✓ Stop Smart Guard
- ✓ Modify Smart Guard
- ✓ Modify Schedule
- ✓ Modify Configuration
- ✓ Start Live Streaming Server
- ✓ Stop Live Streaming Server
- ✓ Modify Live Streaming Server
- ✓ Start Remote Playback Server
- ✓ Stop Remote Playback Server
- ✓ Modify Remote Playback Server
- ✓ IP Camera Connection Lost
- ✓ IP Camera Connection Regained
- ✓ IP Camera Parameter Changed
- ✓ Auto Restart Windows
- ✓ Modify Metadata Setting
- ✓ Metadata Connection Lost
- ✓ Modify E-Map
- ✓ Start Remote Desktop
- ✓ Stop Remote Desktop
- ✓ Modify Remote Desktop
- ✓ Start Central Management
- ✓ Stop Central Management
- ✓ Modify Central Management
- ✓ Start Counting Application
- ✓ Stop Counting Application
- ✓ IP Camera Connection Regained
- ✓ Sync. Microsoft Active Directory User
- ✓ IP Camera Parameter Changed

*Note:

Detection of some system logs is not available under NUUO NVR Lite license.

Step 2: View the events that happened on a particular date or during a given time period by selecting search period.
For a particular date: check the **Date** box right and indicate the date.
For a period: check the **DateTime** and then enter the date and time.

Step 3: Click **Search**.

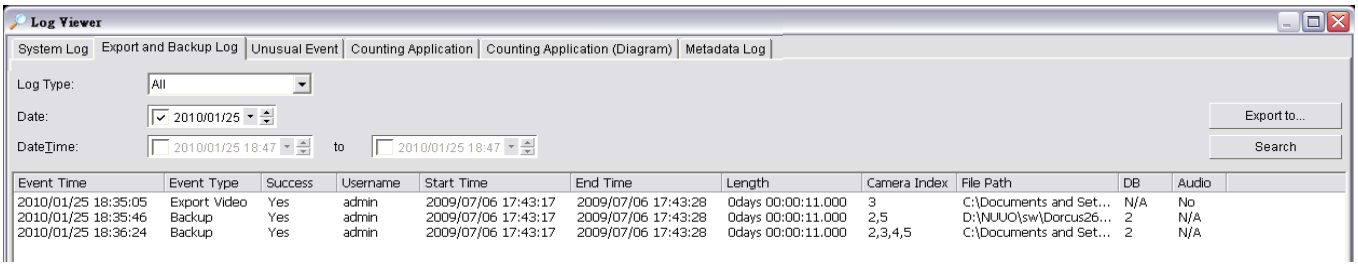
7.2 Export and Backup Log

View the Export and Backup Log history that had been operated by local or remote user.

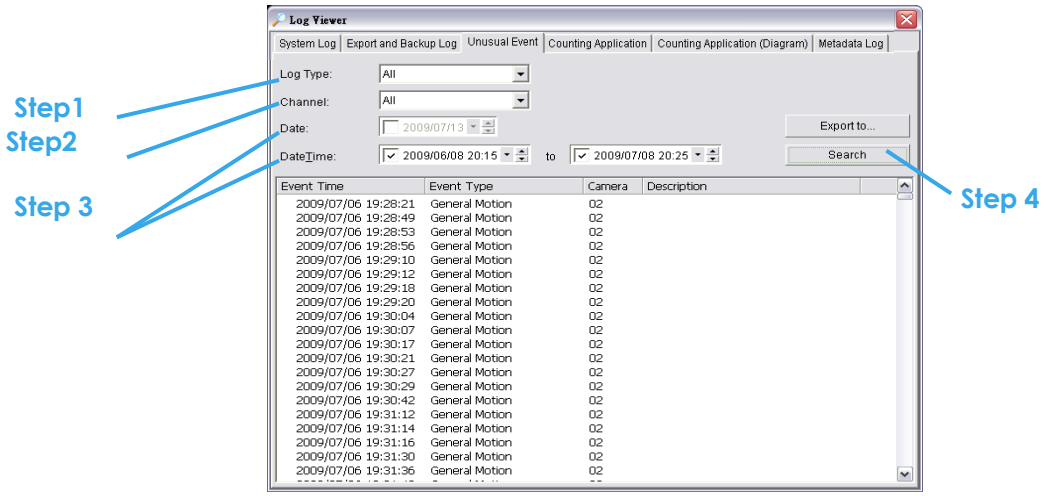
Step1: Choose the type of event you want to check or select **All** from the drop-down menu for all types of events.

Step 2: View the events that happened on a particular date or during a given time period by selecting search period.
For a particular data: check the **Date** box right and indicate the date.
For a period: check the **DateTime** and then enter the date and time.

Step 3: Click **Search**



7.3 Unusual Event



Step1: Choose the type of events you wish to view or select **All** from the drop-down menu to view all. The types of Unusual Events include General Motion, Foreign Object, Missing Object, Focus Lost, Camera Occlusion, Signal Lost, Disk Space Exhausted, System Health Unusual, Digital Input Triggered and General Motion (Device).

* Note: Detection of some events is not available under NUUO NVR Lite license.

Step 2: Choose the camera channel you wish to view or select **All** for all channels available.

Step 3: View the events that happened on a particular date or during a given time period by defining a search period.
For a particular date: check and specify date in the **Date** box.
For a period: check the **DateTime** and then enter the date and time.

Step 4: Click **Search**.

Note: When working with a video record, as default, Log Viewer will search for Unusual Events in the video record in Date & Time mode, starting from the beginning to the end of the record.
A link (🔗) will appear next to each event time where video is available.
By clicking on the link, an instant playback window will pop up to show recorded video.

Note: Instant playback is available under the following Smart Guard events: General Motion, Foreign Object, Missing Object, Focus Lost and Camera Occlusion.

7.4 Counting Application

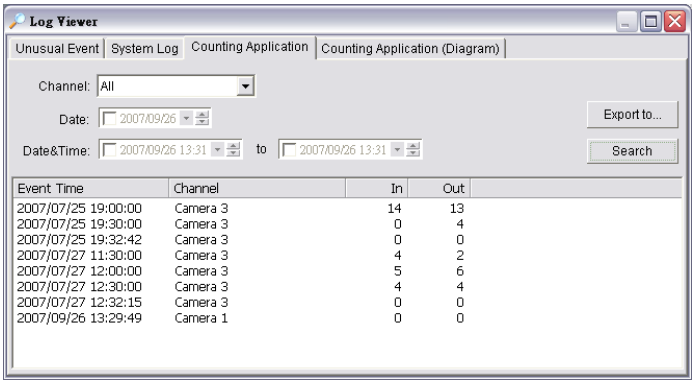
* Note: This function is not available under NUUO NVR Lite license.

Display the history of Counting Application during a given time period.

Step1: Select the channel you want to check or select **All** from the drop-down menu for all channels.

Step 2: Select search period. View the events that happened on a particular date or during a given time period by selecting search period.
For a particular date: check the **Date** box right and indicate the date.
For a period: check the **DateTime** and then enter the date and time.

Step 3: Click Search.

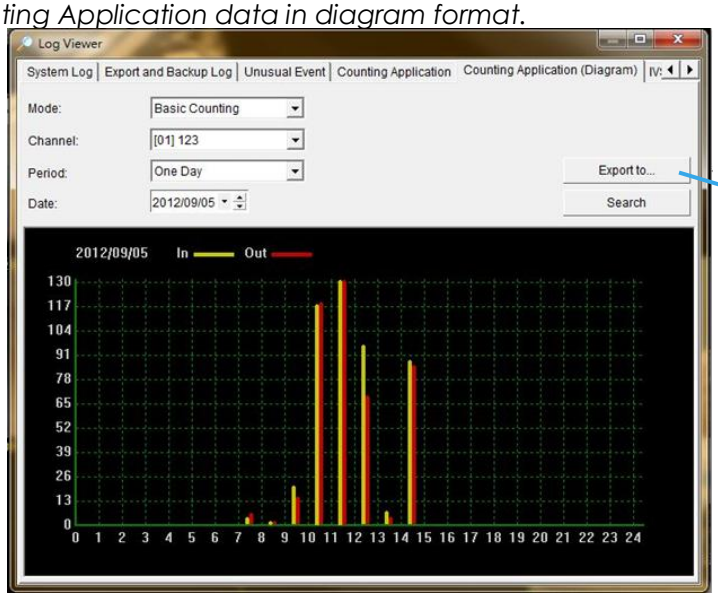


Step 4: Press the button **Export to**.
Step 5: Type the file name and choose the file format (.xls or .txt).

7.5 Counting Application (Diagram)

* Note: This function is not available under NUUO NVR Lite license.

Display the Counting Application data in diagram format.



Step1: Select the channel you want to check or select **All** from the drop-down menu for all channels.
Step 2: From the drop-down menu, set up how you would like the diagram to be displayed. You have the options of one day, one month, or one year.
Step 3: Select a specific date to make it the start point of the diagram.
Step 4: Click **Search**.
Step 5: Press the button **Export to**.
Step 6: Type the file name and the file will save as BMP files.

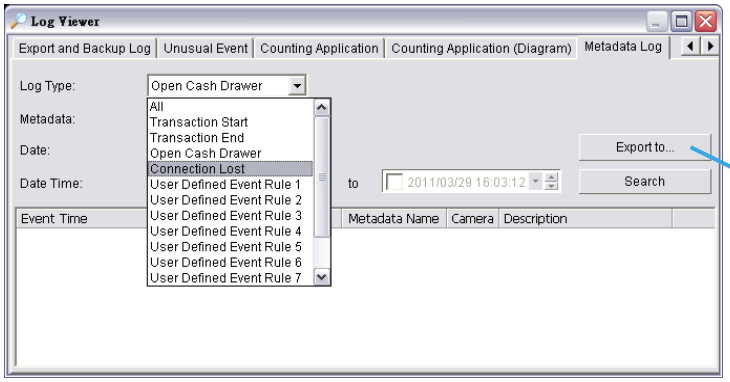
7.6 Metadata Log

* Note: This function is not available under NUUO NVR Lite license.

View the Metadata Log history detected by the Smart Guard System.

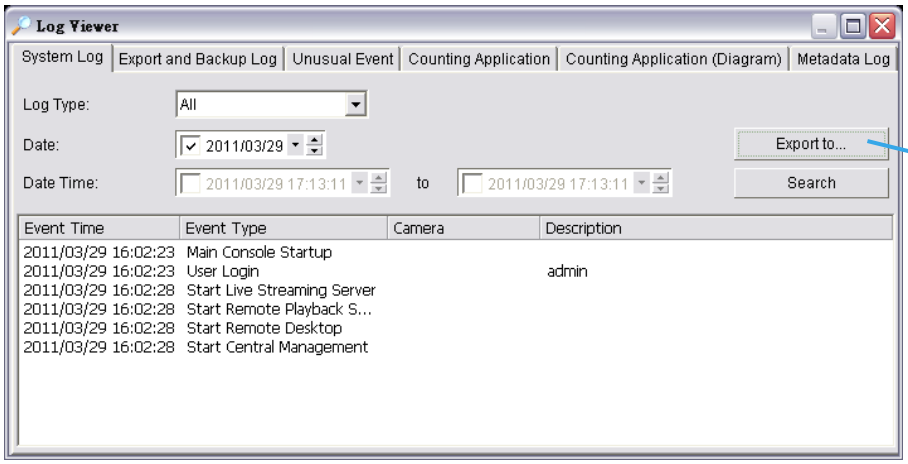
Step1: Choose the type of events you wish to view or select **All** from the drop-down menu to view all types of events. The types of Unusual Event include Transaction Start, Transaction End, Open Cash Register, Connection Lost, and special User defined event. Please refer to the User manual of Metadata plugins for details.
Step 2: Choose the camera channel you wish to view or select **All** for all the channels available.
Step 3: View the events that happened on a particular date or during a given time period by selecting search period.
For a particular date: check the **Date** box right and indicate the date.
For a period: check the **DateTime** and then enter the date and time.
Step 4: Click **Search**. A link (🔗) will appear next to each event time where video is available.
By clicking on the link, an instant playback window will pop up to show recorded video
Step 5: Press the button **Export to**.

Step 6: Type the file name and choose the file format (.xls or .txt).



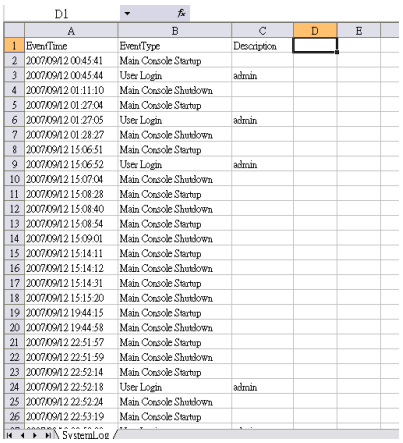
7.7 Export

After each log search, export needed info to .xls or .txt files.

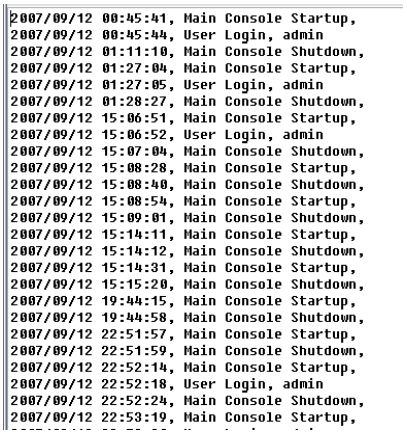


Step1: Press the button **Export to**.

Step2: Type the file name and choose the file format (.xls or .txt).

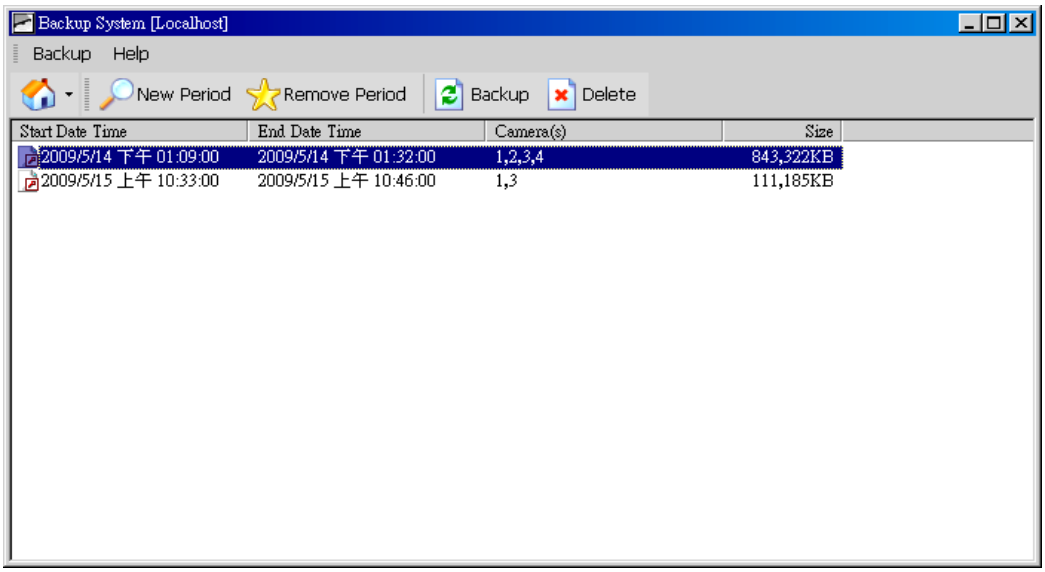


.xls



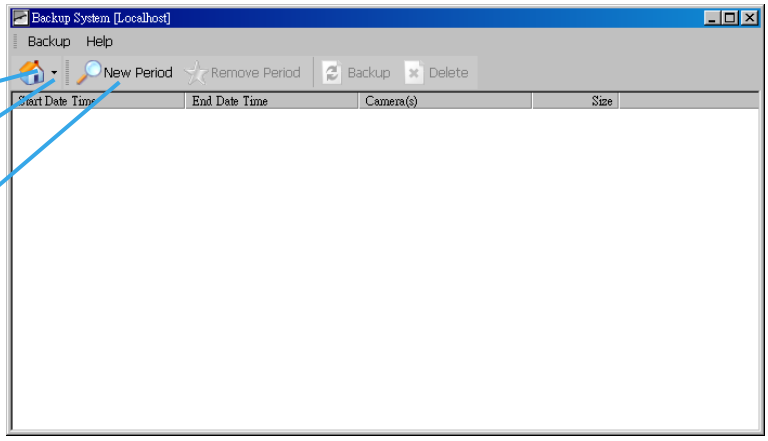
.txt

8. Backup

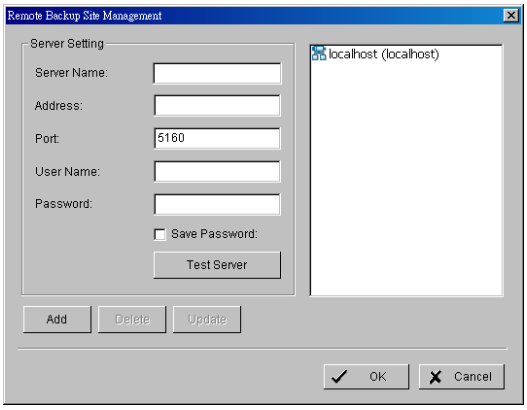


The backup function saves recorded video and other log information. Backup files may be reloaded on any PC with the Playback System installed. Follow the instructions below for more information on obtaining backup files.

8.1 Backup Recorded files



Step 1: Add (Remote) Backup Site: Press the "Remote Server" button to go to remote backup site management to add and setup the backup site.

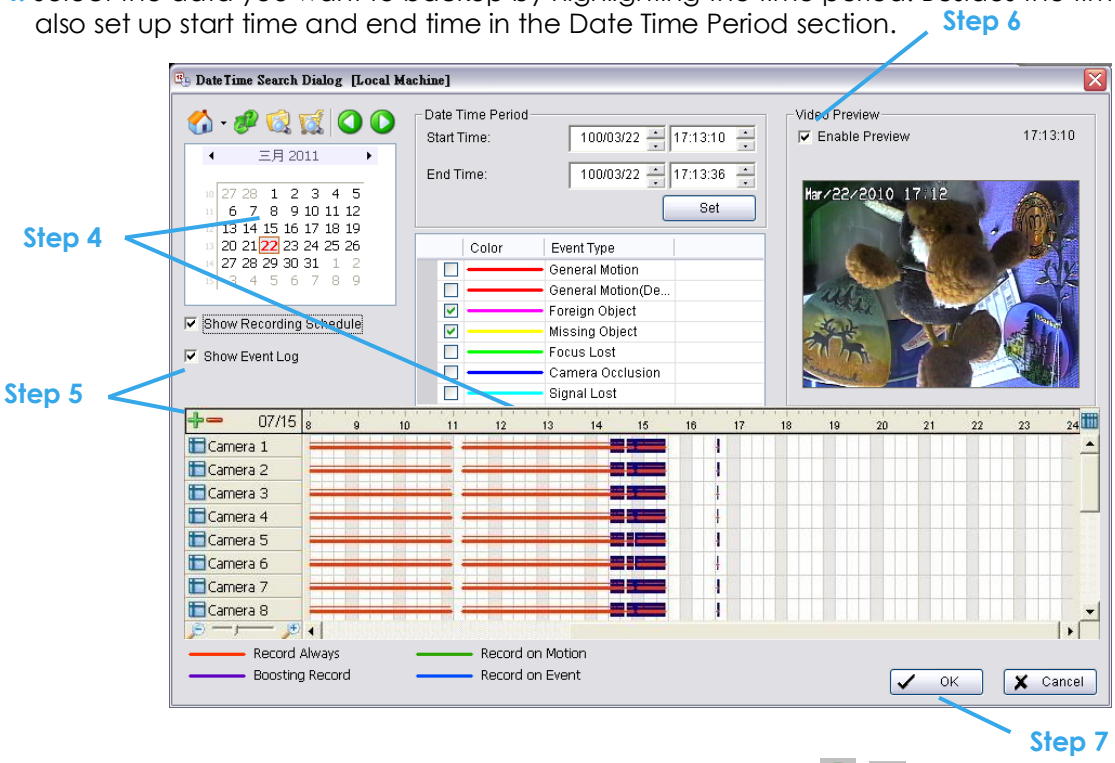


- Enter the IP address or DNS, Port, Username, and Password.
- Click **Add** to add the server.
- Click **OK** to exit the Setting panel.

Step 2: Access (Remote) Backup Site: Click on the icon and insert the username/password of the remote server to access the backup Site.

Step 3: Click on New Period to obtain the Select Date/Time Period panel.

Step 4: Select the data you want to backup by highlighting the time period. Besides the time-table, you may also set up start time and end time in the Date Time Period section.

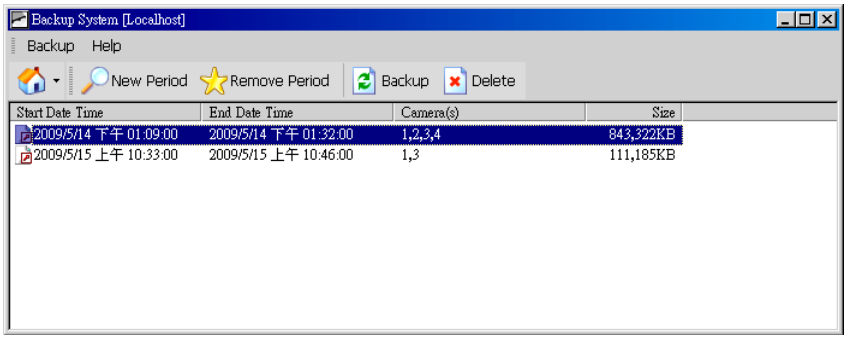


Step 5: Click on the camera number icon to add camera(s) or click to add/delete all the channels.

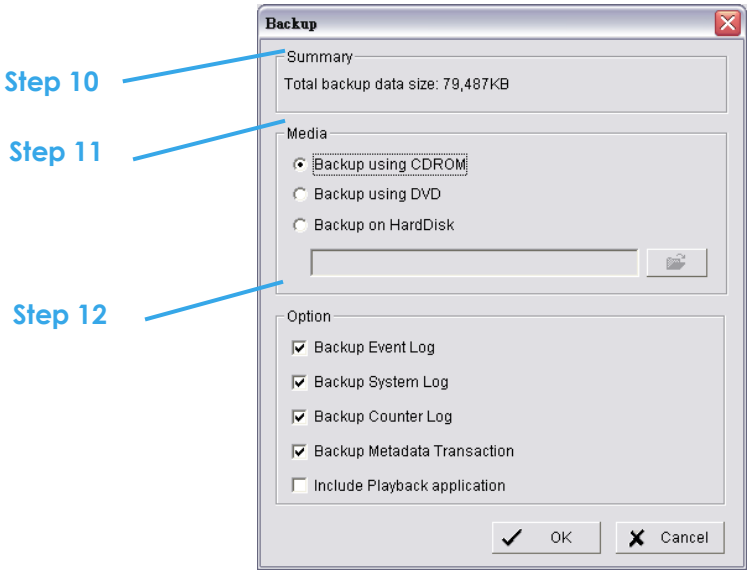
Step 6: Check the box of Enable Preview to get the preview of the video you select.

Step 7: Click OK when the settings are complete and go back to the Backup System panel.

Step 8: If there is any data period not wanted, click Remove Period to remove the data period on the backup list.



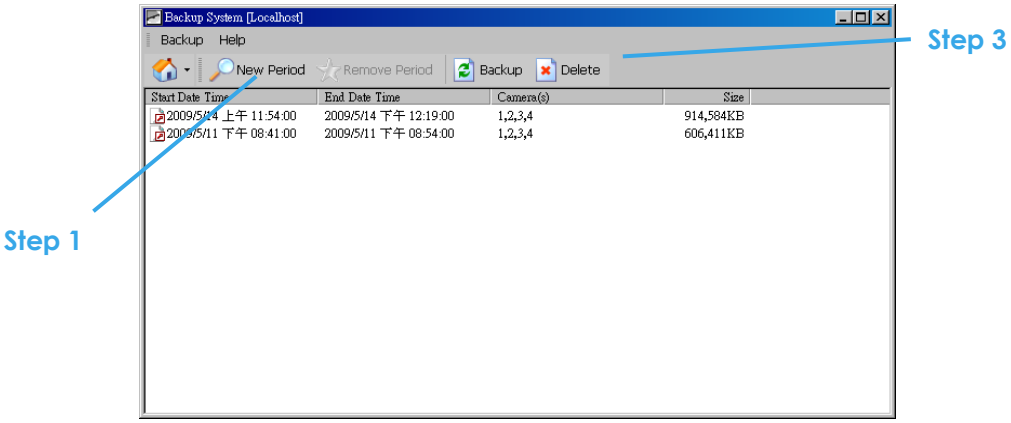
Step 9: Click the Backup icon to obtain Backup panel.



Step 10: Summary: Check the summary section to see the size of the file(s).
Step 11: Media: Choose the path you want to save the file or burn the file into a CD (direct CD burning for Windows XP only), DVD or on Hard Disk.
Step 12: Option: Select the log information you would like to backup (Event Log, System Log, Counter Log and Metadata Transaction), and then click OK.

8.2 Delete Recorded files

Step 1: Click on "New Period" to obtain the Select Date Time Period panel.



Step 2: Follow steps 3-7 above from the backup section to select data period which you want to delete.
Step 3: Click on the Delete icon and delete all the data in the backup list from the database.
Note: Deleted video cannot be recovered.

9. Remote Live Viewer

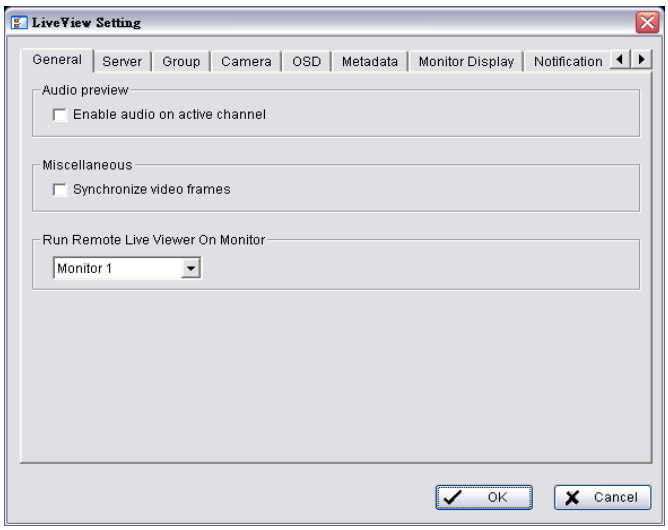
With the Remote Live Viewer console, remote users may watch up to 128 channels real-time video from remote live streaming servers.

* Note: Maximum 32 channels under NUUO NVR Lite license.

9.1 Setting

Click General Setting to obtain setting dialog.

9.1.1 General Setting



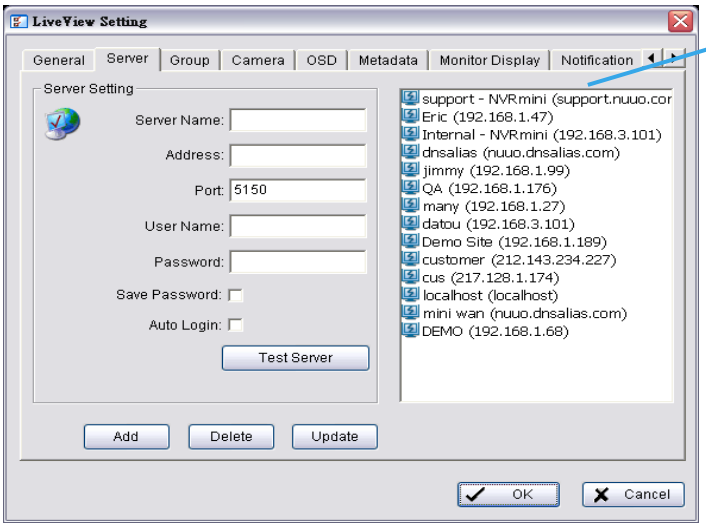
Audio preview:

- Enable audio on active channel: Select to enable audio streaming on active channel.

Miscellaneous:

- Synchronize video frames: Select to avoid image tearing problems that may occur while CPU loading is increased.

9.1.2 Server setting



Step 1: Enter the Server Name.
Step 2: Enter the Address, Port, User Name, and Password to log in the server.
Step 3: Enable "Save Password" to login without entering the password again.
Step 4: Enable "Auto Login" to login automatically when starting Remote Live Viewer.
Step 5: Click on Test Server to check if the server is available.
Step 6: Click Add to insert the setting to server list.

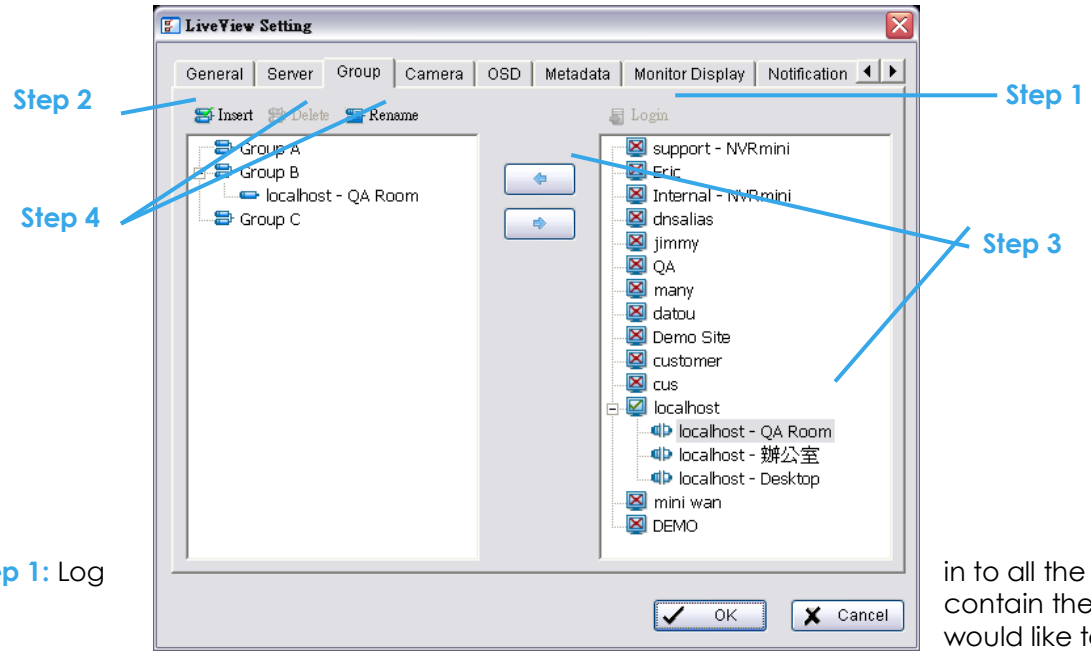
Note:

To change the setting, select a server on server list and click "Ute" after modify setting.
To remove the server, select a server on server list and then click "Delete".

9.1.3 Group Setting

Allocate different cameras into each appointed group.

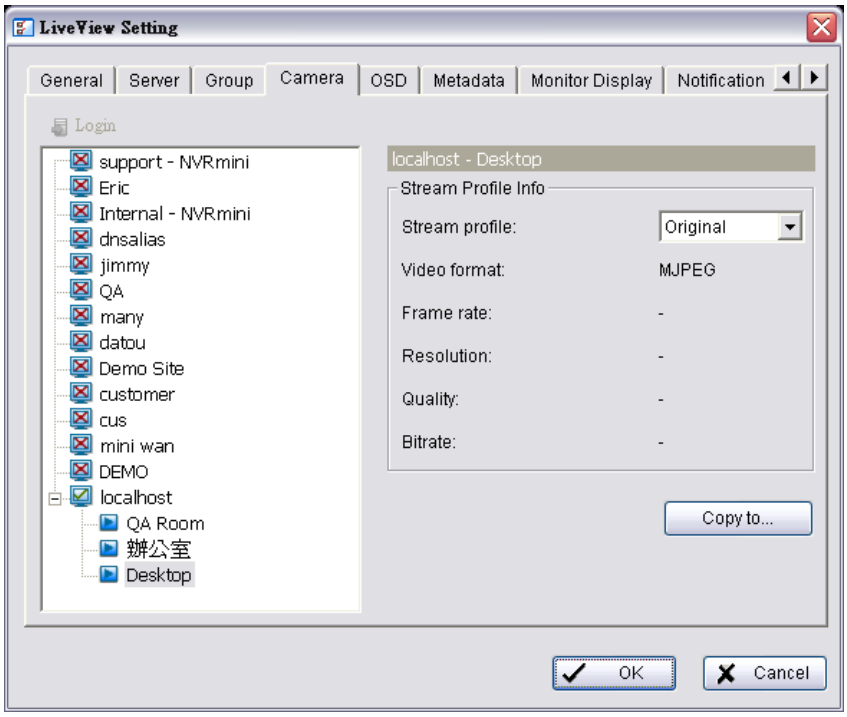
* Note: Cameras under NUUO NVR Lite license cannot be included in a group with other servers.



Step 1: Log in to all the servers that contain the camera(s) you would like to put into the group(s).
Step 2: Click Insert to create a new group; name the group for future reference.
Step 3: From the window at the right, highlight the camera(s) that you would like to add to a group and then click on the " <-- " button. Repeat the process until satisfied with the group setting.
Step 4: Click on the Delete and Rename button to remove or rename a specific group.
Step 5: Repeat Steps 2 to 4 to adjust the group setting until satisfied.
Step 6: Click OK.

9.1.4 Camera Setting

Select the preferred stream type of each camera as default live view profile.
* Note: Some stream profiles are not available under NUUO NVR Lite license.



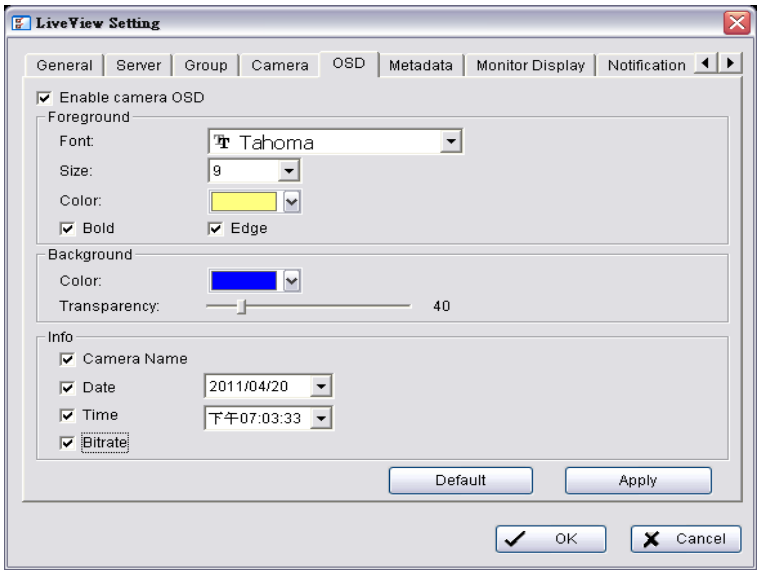
Stream profile: List differs according to different licenses. types of video inputs and

Auto: The system will adjust the stream type automatically to fit different screen divisions.
Recoded: The system will follow the stream profile set in Main Console >Schedule > Encoding Options.
High / Normal / Low/ Minimum / H.264: The system will follow the stream profile set in Main Console - Setting - Camera - Stream Profile.
Original (IP only): The system will display the streaming directly from the IP camera and video server.

Copy to: Select in order to copy the preferred stream profile of a channel to all of the listed channels.

9.1.5 OSD Setting

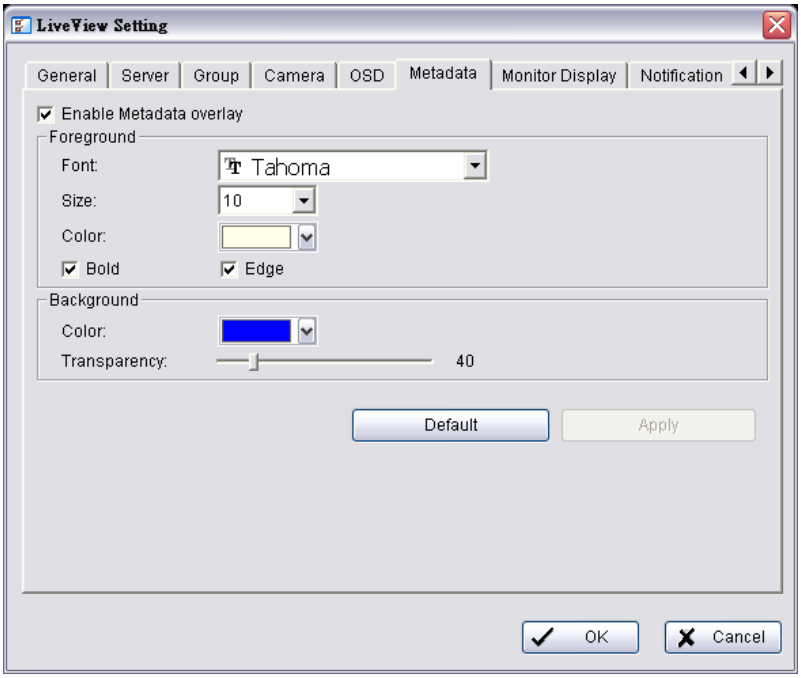
Adjust font style of Camera OSD on this panel.



9.1.6 Metadata Setting

Adjust font style of Metadata overlay on panel.

* Note: This function is not available under NUUO NVR Lite license.

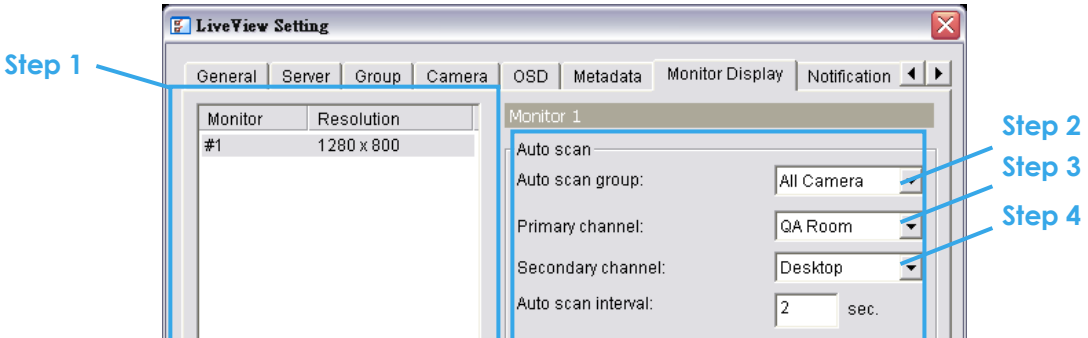


9.1.7 Monitor Display Setting

Activate auto scan to rotate the channels/ cameras on screen.

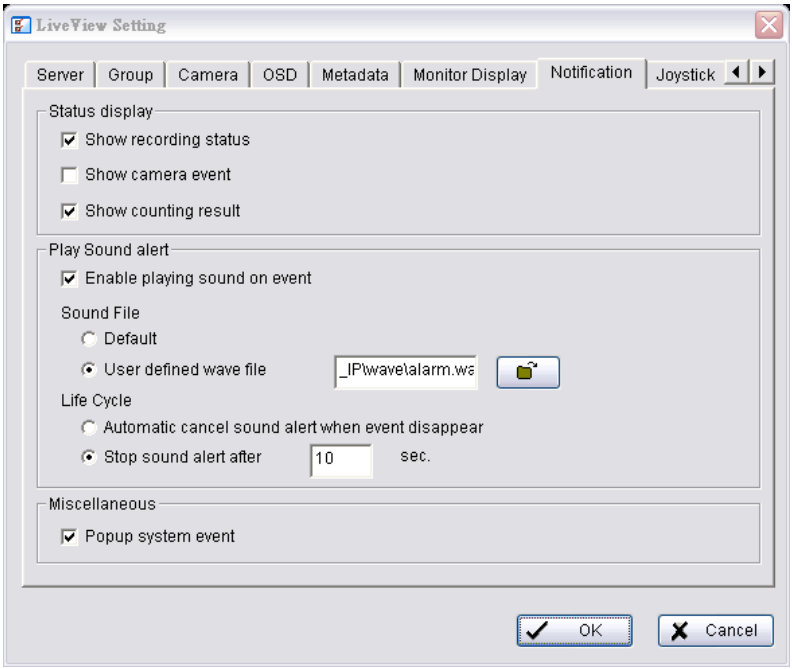
Note:

- For instance, you may select to show only 4 sub-screens on the live viewer while having 16 channels connected to the system. With auto scan function, you will be able to see all 16 channels by turns.
- Each monitor supports up to an 8x8 layout with auto scan function to show 128 channels.



Step 1: Select the Monitor connected to the system.
Step 2: Auto scan group: Select appointed server group to activate auto scan settings.
Step 3: Primary channel: Select appointed channel that will always be on the screen when auto scan is activated.
Step 4: Secondary channel: Select appointed channel with secondary priority behind primary channel when auto scan is activated.
Step 5: Layout: Select the screen division of "NxN type" in Remote live viewer panel.

9.1.8 Notification Setting



Status display:

- Show recording status: Check to show the crystal ball with recording status on monitor display.
- Show camera event: Check to show the smart guard detected event appointed in Main Console on each channel.
  Note: To execute this function, please configure "on screen display" as an action of Smart Guard instant response.
- Show counting result: Check to show the counting result appointed in Main Console on each channel.
  * Note: This function is not available under NUUO NVR Lite license.

Play Sound Alert:

- Enable playing sound on event: Check to enable sound alerts on events.
- Sound File: Choose a sound file to play. You may use the default file or define another.

- Life Cycle: Choose to allow the sound alert to close when events disappear, or define a timer to close the sound alert automatically after a specific period of time.
  Note: To execute this function, please configure "play sound" as an action of Smart Guard instant response.

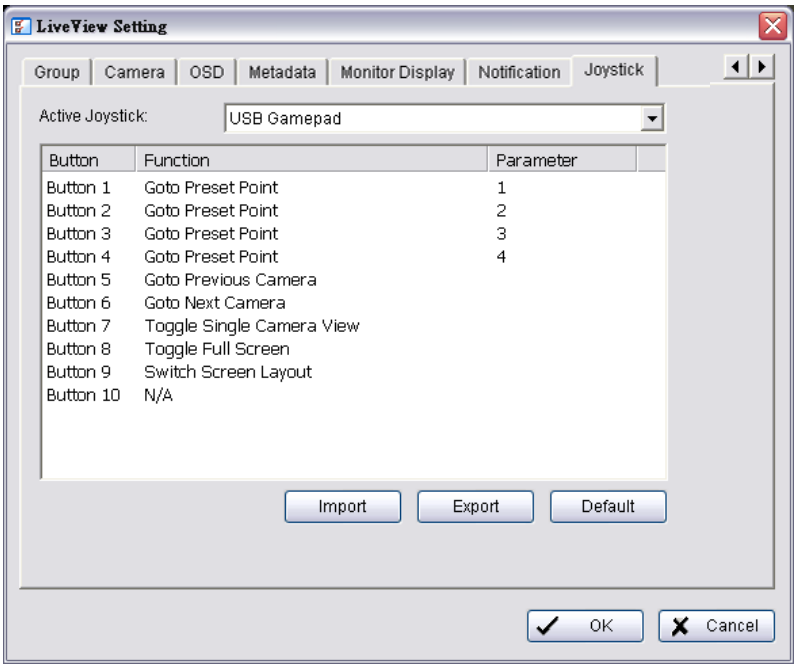
Miscellaneous:

- Popup system event: Check to allow system events appointed in Main Console to pop up messages as warning.

9.1.9 Joystick Setting

Settings are same to Main Console joystick settings. For details please refer to page 75.

* Note: This function is not available under NUUO NVR Lite license.



9.2 Server/Group/Camera

Display a complete list of the server(s), group(s) and camera(s) that are added to the system.
Server View: Cameras are listed according to recording server.
Group View: Cameras are listed according to customized grouping.

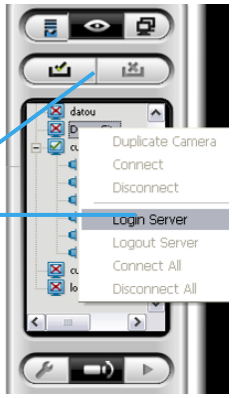
Server View

Group View

9.2.1 login/logout server

Option1: Select a server on the list and click on LOG IN/ LOG OUT to access/ logout the server.
Option2: On the server list, right click to obtain menu options.

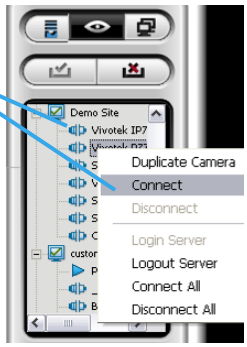
Log In/Log Out Server



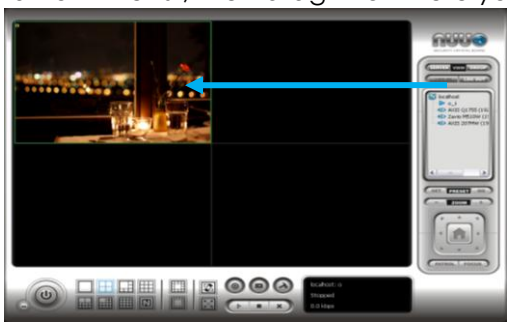
9.2.2 Connect/Disconnect camera

Option1: On the server/camera list, double click on a camera to connect.
Option2: On the server/ camera list, right click on a camera to obtain the menu options to connect/ disconnect.

Connect/Disconnect Camera



Option3: Select a camera from the list, then drag it to where you want it to be displayed.



Option4: Play / Stop/ **Drop:** Select a camera/ video and click on this button to play/stop/disconnect a particular channel.

9.2.3 Multiple Views:

Step1: On the server/camera list, select a camera and right click on it to obtain the menu options.
Step2: Select Duplicate Camera and the duplicate camera with green indicator will display below on camera list.
Step3: Double click on the duplicated camera to connect and display on screen.

9.3 PTZ Control

Control the movement of PTZ cameras. With cameras that support PTZ control, you can move, zoom, patrol,

adjust the focus, and set preset points of the cameras.

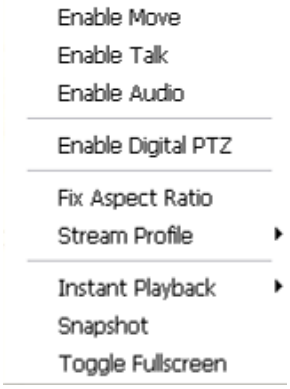
9.3.1 Preset/ Go
Adjust the camera view until satisfied. Click on the Set icon to define the current view as preset point 01. Adjust the camera view again to setup preset point 02. Repeat the process until you finish setting up all preset points. Customize preset point names by defining names. Click on the Go icon and view the result of your setting.
Note: For the speed settings of PTZ camera, please configure from Main Console – Config – Setting - PTZ Config.

9.3.2 Zoom
Click on the **+** and **–** signs to zoom in and zoom out the view.

9.3.3 Focus
You can select to have the camera focused near or far. To focus near means objects that are closer will be clearer than the objects that are further away. On contrast, to focus far means objects that are further will be clearer than the objects that are closer. Click on the Focus icon and select auto focus if you want the system to decide the focus point for you.

9.3.4 Patrol
To control PTZ camera to patrol around pre-defined path of preset points, click on Goto Preset Point – Start Patrol / Stop Patrol.
Note: To setup patrol path, please setup on Main Console – Set Preset Point – Set Patrol.

9.4 On Screen Menu
Right click on the camera screen for the On Screen Menu, from which you can quickly adjust the setting of camera.



9.4.1 Enable Move / Area Zoom
With cameras that support PT function, click the Enable Move function to adjust the current camera's view by clicking on the display screen. To cancel this function, right click on the screen and select Disable Move.
With cameras that support Area Zoom function, click the Enable Move/Area Zoom function to adjust the current camera's view by dragging a rectangle on the display screen. To cancel this function, right click on the screen and select Disable Move/Area Zoom.

9.4.2 Enable Talk
*This feature is not available under NUUO NVR Lite License.
With cameras that support two-way audio, select enable talk to utilize the function.

9.4.3 Enable Audio
With cameras that support audio function, click the Enable Audio function to listen to the current camera's audio by clicking on the display screen. To cancel this function, right click on the screen and de-select Enable Audio.

9.4.4 Enable Digital PTZ
To enable the PTZ functions of the camera, select the Enable digital PTZ option. Use mouse wheel or click on the + and – signs to zoom in and zoom out on the camera, or drag a rectangle to enlarge the area.
The square flashing on the video grid indicate the correspondent view of the camera.

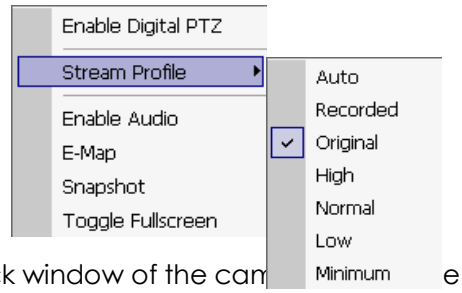
9.4.5 ImmerVision Lens Setting
*This feature is not available under NUUO NVR Lite License.
With cameras that support ImmerVision Lens. Right click on the display screen and select the mode of lens, original, PTZ mode, Quad mode and Perimeter mode. If the lens setting set as Quad, PTZ, or Perimeter mode, the Enable Digital PTZ option would become Enable ImmerVision digital PTZ.

9.4.6 Fix Aspect Ratio

For some special camera resolution, user can enable Fix Aspect Ratio to view original ratio video, or disable this option to stretch 3:4 to fit window.

9.4.6 Stream Profile

Select different level Stream Profiles to downgrade video quality for bandwidth concerns.
* Note: Some stream profiles are not available under NUUO NVR Lite license.



9.4.7 Instant Playback

To open the Instant Playback window of the cam e Instant Playback option and choose the period. The instant playback window allows the user to browse recorded video, take snapshot images and export video with audio and metadata transaction data.
* Note: This function is not available under NUUO NVR Lite license.

9.4.8 Duplicate Camera

Right click on any empty channel. You may duplicate cameras from any available servers here.

To browse recorded video

By simply clicking on the timeline you can view the video. Use the navigation tools below for advanced control.

- Play / Pause / Stop

- Speed up/Speed down

- Fast Forward/reverse frame by frame

- Play Previous / Next minute video

To keep a snapshot of the video clip

Pause the video at desired time point and click snapshot button . The snapshot is displayed and can be saved or copied to clipboard.

To export recorded video

Select desired export period and click export button . Additional options are available when exporting.

Adjust to original video resolution button is the tool to adjust the video to original video resolution.

Audio button turns the audio on / off.

Metadata button is to enable / disable metadata transaction data overlay.

9.4.8 Snapshot

The snapshot function copies and captures a specific video image to the clipboard or to save as a bmp file. The snapshot can be customized with/without OSD, metadata information and selectable range after digital zoom in.

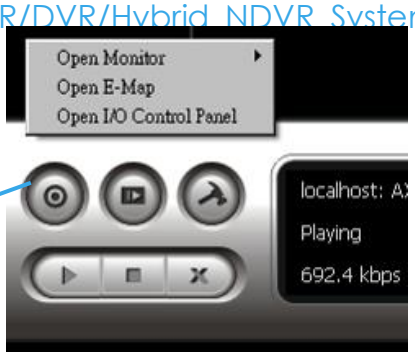
9.4.9 Toggle Full screen

Switch to view video with full screen display. To disable the function, right click on screen and de-select option or simply press "ESC" to go back to original window.

9.5 Start Monitor

9.5.1 Multiple Monitor

Select Open Monitor to append monitor to view more live videos on multiple monitors. Each appended monitor has the same list and view control buttons as the Main monitor, with the exception of the Start, Playback, and Setting buttons.



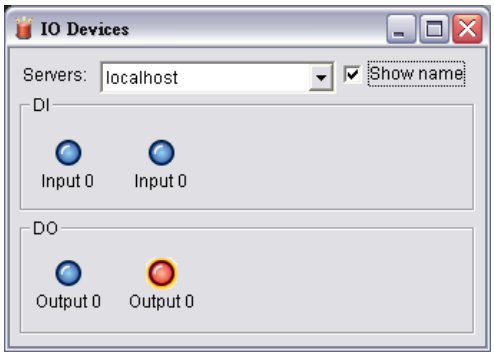
9.5.2 E-Map

Select Open E-Map to obtain the E-Map window. The GUI map helps to locate devices easily and the information window helps to show the status of each device.

Map Info – Show map name.
Camera – Show camera name and connecting status.
Digital Input/Output – Shows Digital Input / Output name and status (0 or 1).
Access Control/POS/LPR – Shows metadata device name, connection status, first associated camera name and connection status.

9.5.3 I/O Control

Select to obtain the I/O control panel. Use the panel to view DI status and control DO devices remotely.
Note: Adjust the setting of I/O device in Main console – Config – Setting - I/O Device first, the I/O control panel will display the device status based on these settings.

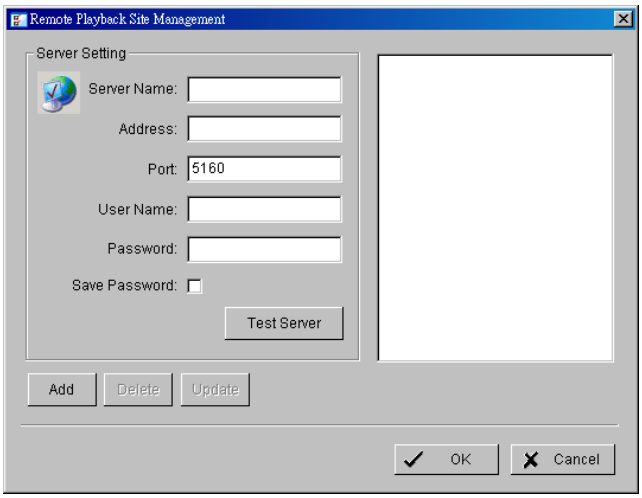


9.6 Playback

Select to obtain the Playback panel and view video remotely.

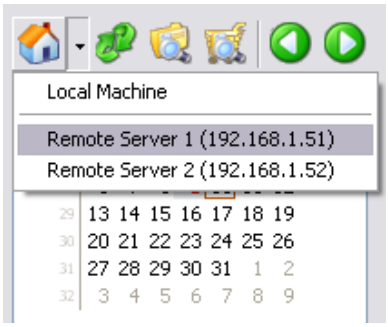
9.6.1 Add Remote Playback Site

Press the Remote Sever icon to go to remote playback site management to add and setup a remote playback connection.
Step 1: Enter the IP address or DNS, Port, Username, and Password.
Step 2: Click Add to add the server.
Step 3: Click OK to exit the Setting panel.

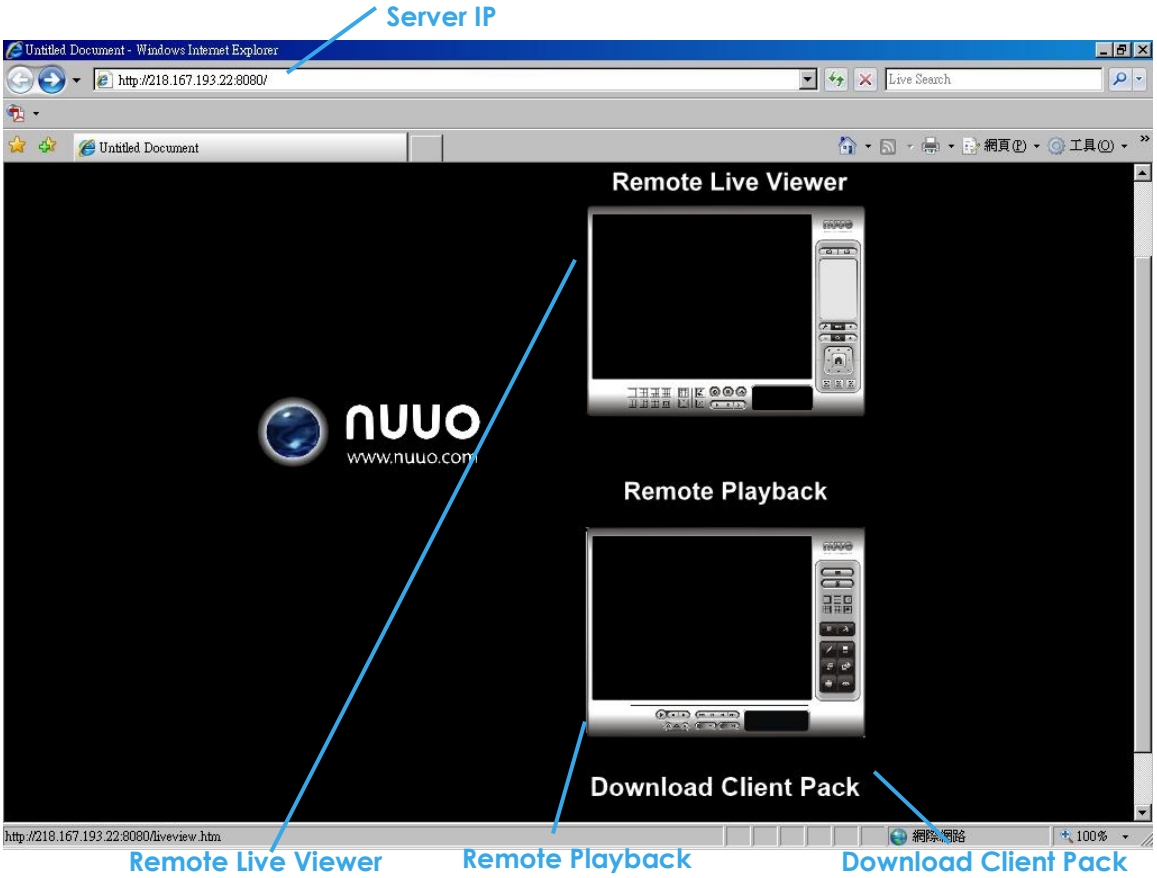


9.6.2 Access Remote Playback Site

Go to Date/Time Panel and click on the icon on the top of the display window to access the Remote Playback Site



10. Web View



Note: Make sure the Live Stream Server is enabled. Check 5.14 Network Service for more detail.

10.1 Server IP

Start Internet Explorer browser and enter the IP address or DDNS name of the server followed by the connecting port.
Example: http://192.168.1.16:8080/
Note: 192.168.1.16 is the IP address of the server.
8080 is the port specified in Use Default Web Server in Network Service.
To connect directly to Remote Live Viewer without additional login, you may input username and password in the URL.
Example: http://192.168.1.16:8080/liveview-htmlskin/LiveView.html?user=admin&password=12345
(Username: admin, password:12345 in this example)

10.2 Remote Live Viewer

Press this icon to use Remote Live Viewer which functions are the same as Remote Live Viewer. See page 109 for details.

10.3 Remote Playback

Press this icon to use Remote Playback which functions are the same as Playback except remote server and backup functions. See page 34 for details.

10.4 Download Client Pack

Press to download client pack to install application based Remote Live Viewer and Remote Playback.

11. Utilities

A. Verification Tool
B. License Management Tool
C. Resource Management Tool
D. DB Tool

11.1 Verification Tool

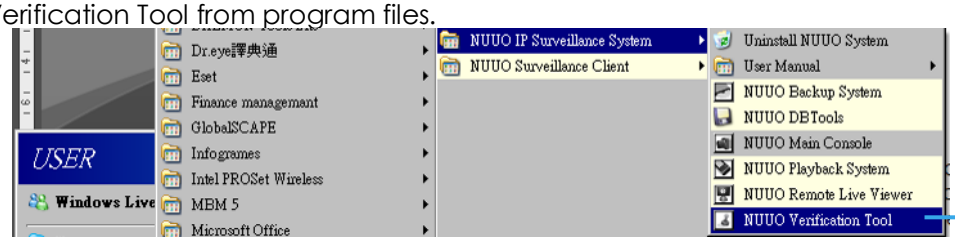
The Verification Tool verifies whether the data created by the system has been tampered with. It is the process by which a digital watermark (a digital signature) is added to each recorded video frame to ensure its authenticity.

There are 3 types of data that can be verified by the Verification Tool:

1. File in (.DAT) (.264) format will be displayed as .
2. File in (.AVI) (.ASF) format will be displayed as .
3. File in (.BMP) (.JPG) format will be displayed as .

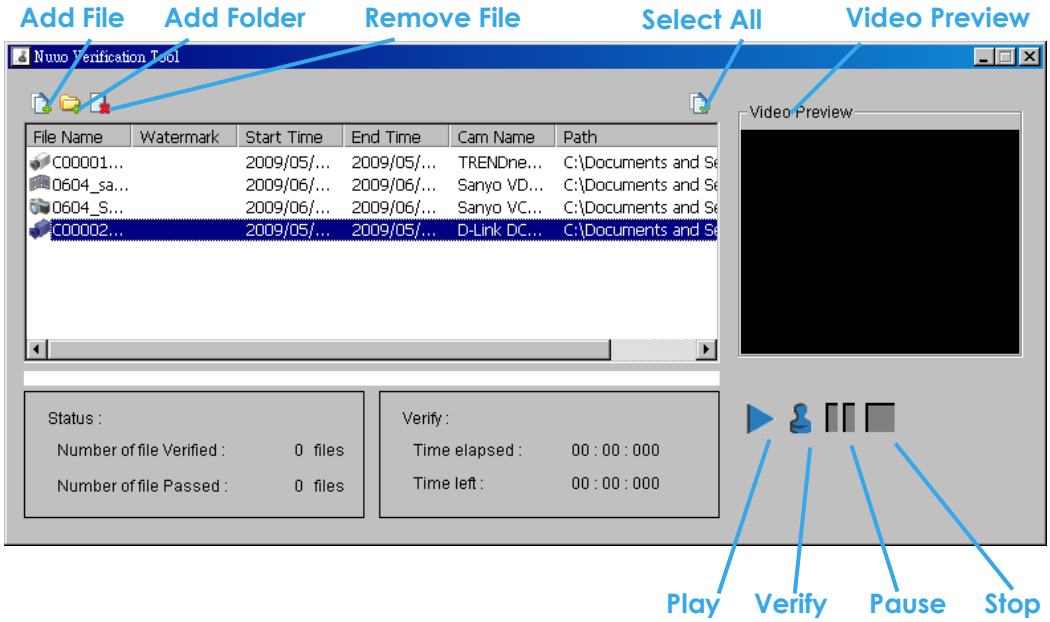
11.1.1Execute Verification Tool

Step 1: Execute Verification Tool from program files.



Step 2: Insert the Administrator Password to log in.
Step 3: The Verification Tool appears after login.

11.1.2 Verification Tool Overview



Add File: Click to insert the single file to list for verification.
Add Folder: Click to choose the folder with multiple files to list for verification.
Remove File: Click to remove indicated file(s) from list.
Select All: Click to select all files in list for verification.

Note:

1. Choose the file type first before selecting files. Only (.dat) (.264) (.avi) (.asf) (.bmp) (.jpg) are supported.
2. User can also drag files directly into the list for verification.

Video Preview: Check this column to preview video of selected file. Click on the buttons below the window to play , Pause and Stop the file.

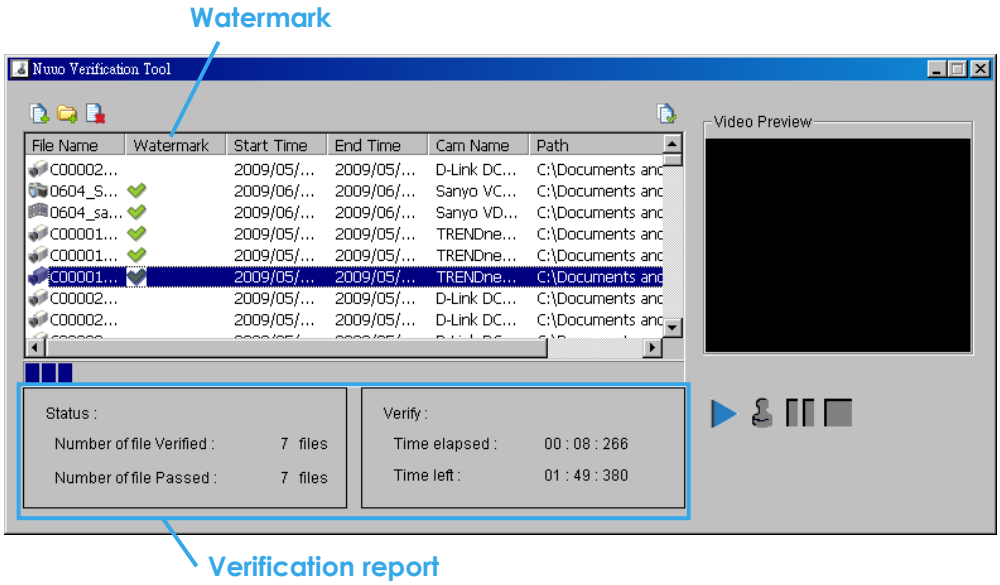
Note: Preview of (.bmp) (.jpg) format is not allowed.

11.1.3 Verify Image/Video

Step 1: Select single or multiple files for verification.

Step 2: Click "verify" to start verification.

Step 3: The verification result will show on the watermark column.
If a file was tampered with, it will show.
If a file passes verification, it will show.



Step 4: The verification report will indicate the information related to the verification.

11.2 License Management Tool

The license of the software should be registered before you start using the Intelligent Surveillance System. Additional to essential camera licenses, you may also purchase licenses for the metadata application, including those for POS, LPR and access control.
Execute the License Management Tool to activate the license from dongle or serial number included with the software package, or de-activate the license then bring it to another PC to activate it again.

Please note different level licenses cannot coexist under one license server.
Upgrade licenses will replace lower level licenses into higher level ones.

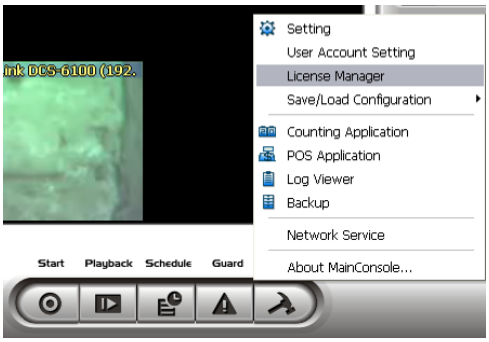
Both "Online" and "Offline" status of PC environments are available on executing the tool to "activate" or "transfer" the license. The following is a total of 4 types of license management process:

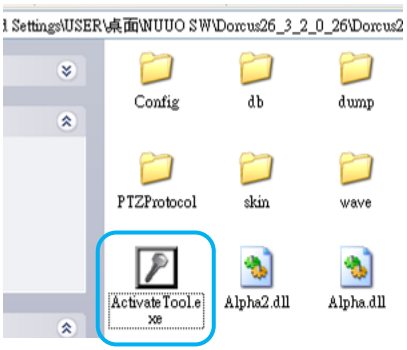
- To **activate** the license with PC connected to network, follow the Activation Online process.
- To **activate** the license with PC not connected to network, follow the Activation Offline process.
- To **de-activate/transfer** the license with PC connected to network, follow the Transfer Online process.
- To **de-activate/transfer** the license with PC not connected to network, follow the Transfer Offline process.

11.2.1 License Management Tool Overview

11.2.1Execute License Management Tool

Step 1: Execute License Manager Tool in config menu or installation folders.

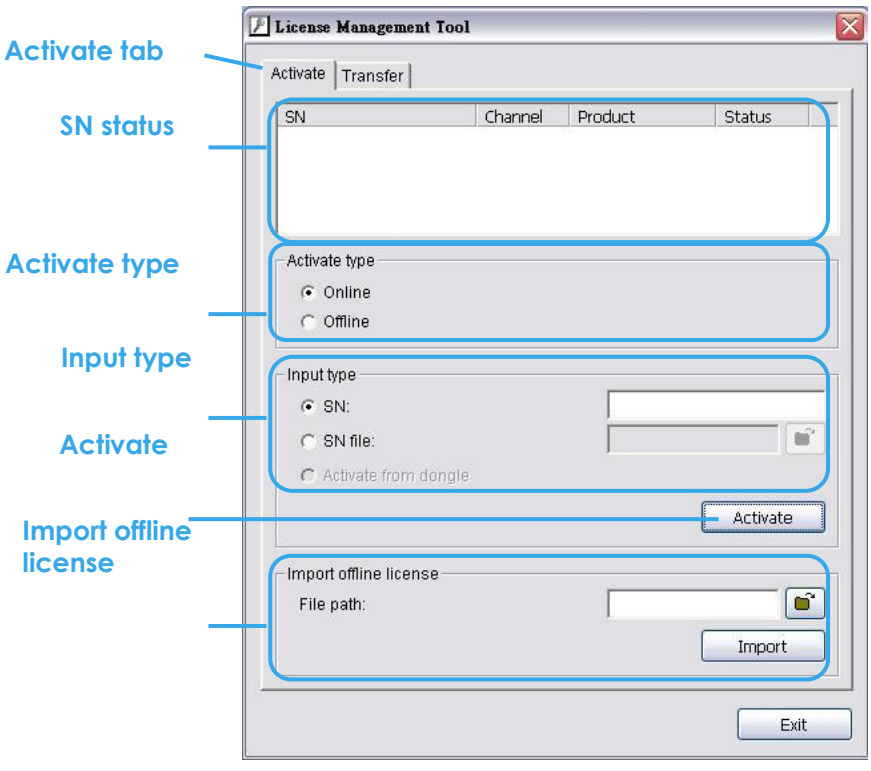




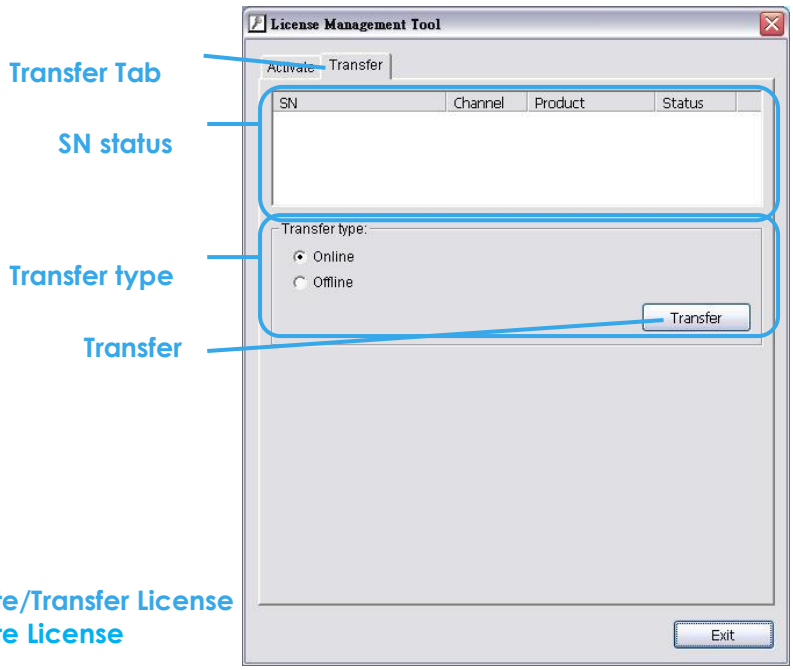
Step 2: The "License Management Tool" will appear. Please refer below for the tool overview.

1.1.2 License Management Tool Overview

Activate



Transfer

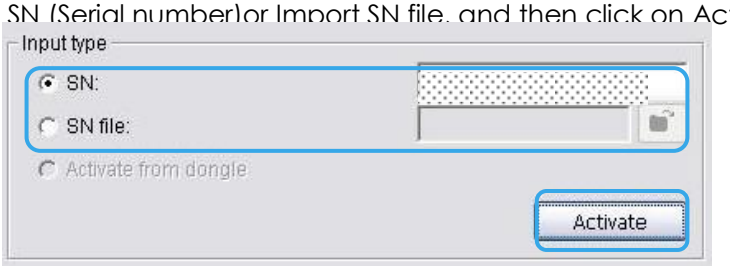


11.2.2 Activate/Transfer License

11.2.2 Activate License

Activation Online

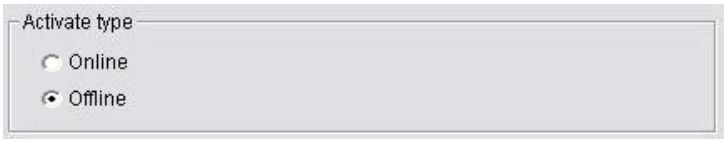
Step 1: Open License Manager Tool.
Step 2: Select On line as Activate type.
Step 3: Input the SN (Serial number)or Import SN file, and then click on Activate button.



Step 4: Restart Main Console if activation is successful.

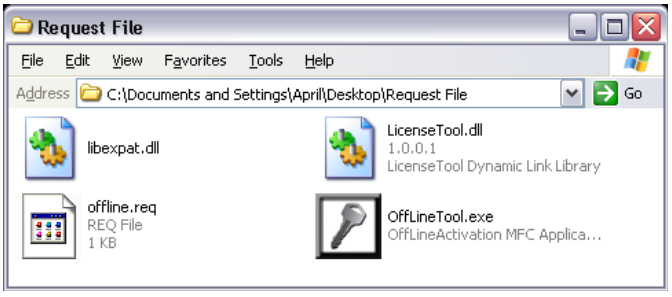
Activation Offline

Step 1: Open License Manager Tool.
Step 2: Select Offline as Activate type.

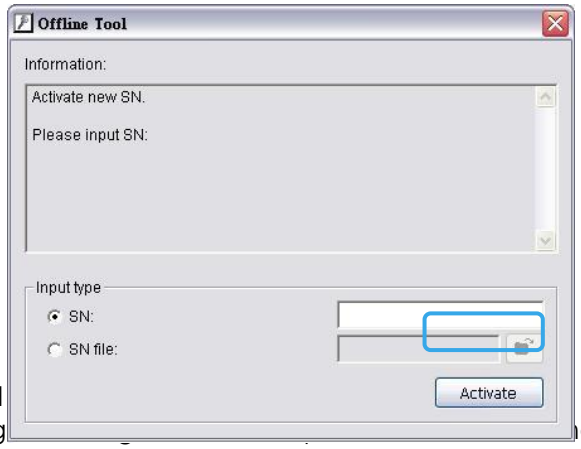


Step 3: Click on Export offline pack.
Please note this license will bind with hardware configurations and it is not recommended to register with removable network devices.

Step 4: Save Request file, and then take it to another PC that is connected to the Internet.

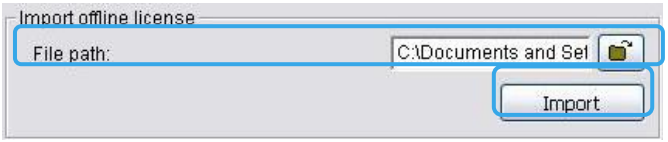


Step 5: Execute OffLineTool.exe in the other PC. Input the SN (Serial number) or Import SN file, and then click on Activate button.



Step 6: Save License file, and

Step 7: Open License Manag en click Import button to activate.

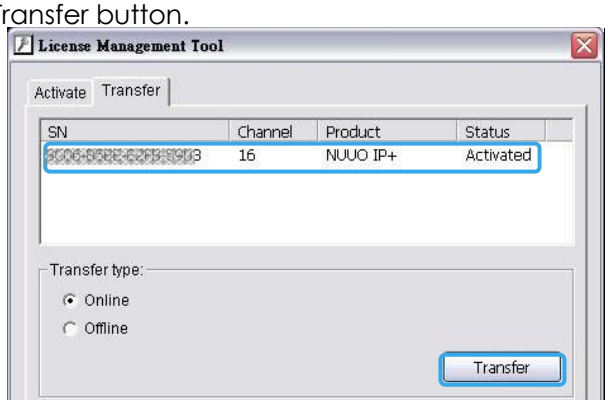


Step 8: Restart Main Console if activation is successful.

11.2.3 Transfer License

Transfer Online

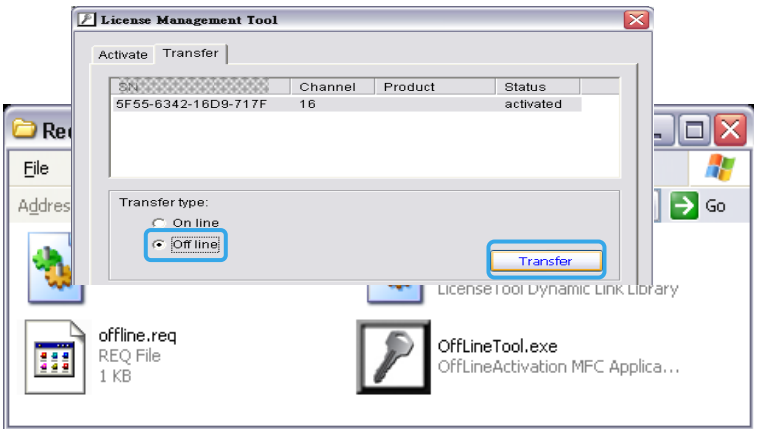
Step 1: Open License Manager Tool.
Step 2: Select Transfer Tab, and then check Online as Transfer type.
Step 3: Select SN and click on Transfer button.



Step 4: Restart Main Console if transfer is successful.

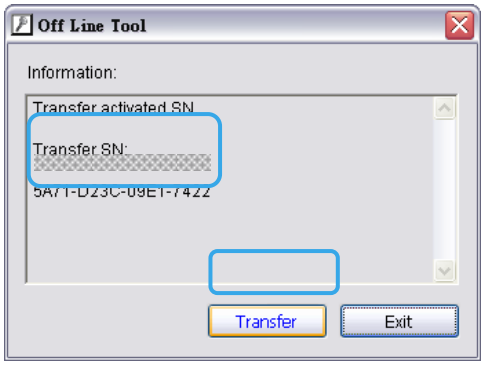
Transfer Offline

Step 1: Open License Manager Tool.
Step 2: Select Transfer Tab, and then check Offline as Transfer type.
Step 3: Select SN, and then click Transfer button to transfer SN.

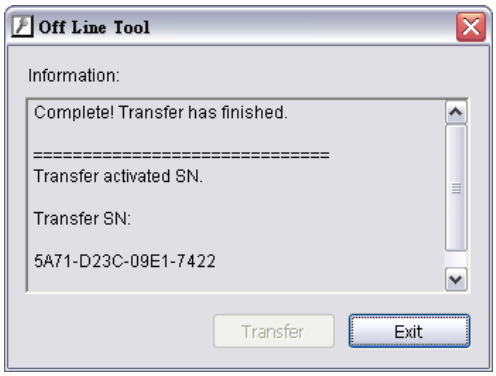


Step 4: Save Request file. Restart Main Console if transfer is successful..

Step 5: Copy request file to another PC connected to internet.
Step 6: Execute OffLineTool.exe in another PC, check Transfer SN and click Transfer to send request file to license server.



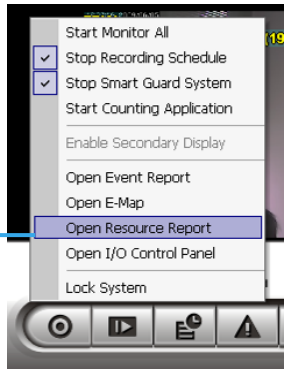
Note: User needs to copy request file to another PC and send it to license server, otherwise the SN can't be re-activated again!!



11.3 Resource Management Tool

The Resource Management Tool detects whether the system is operational.

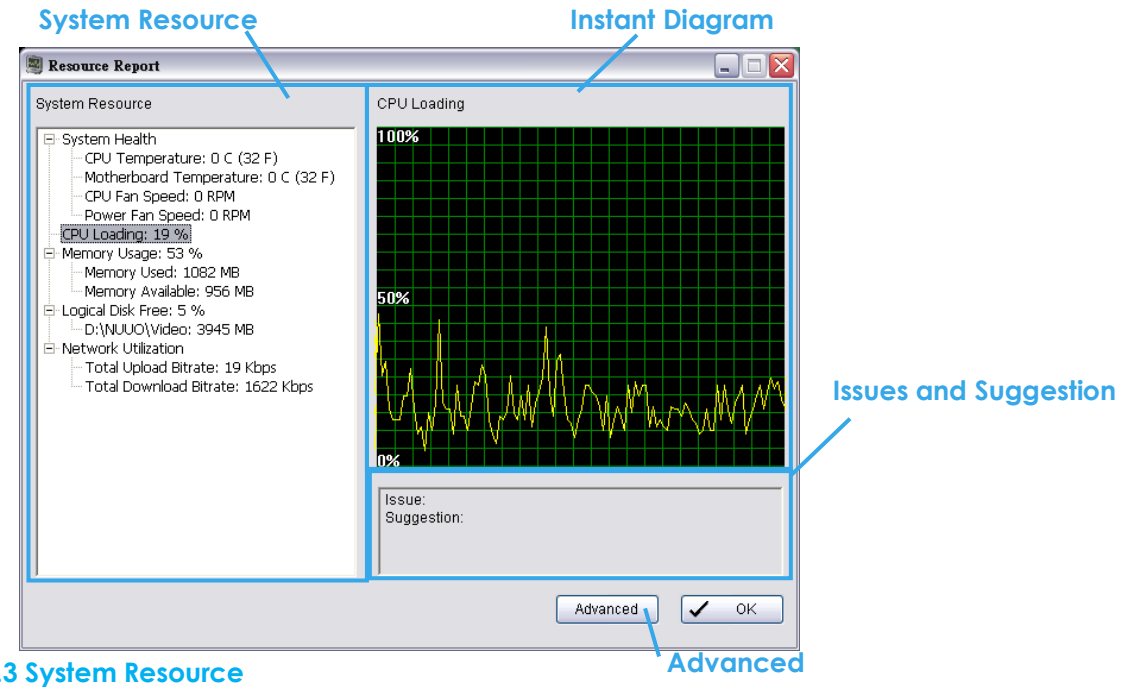
Note: For further application of the Resource Management Tool, please refer to page 57 In "Guard" chapter.



11.3.1 Execute Resource Management tool

Step 1: Open Resource Report from start menu.
Step 2: The Resource Management Tool will appear.

11.3.2 System Resource Overview



11.3.3 System Resource

System Health: This item shows the system information, including "CPU Temperature", "Motherboard Temperature", "CPU Fan Speed" and "Power Fan Speed".
Note: User needs to install the "SpeedFan" first to gather the CPU and Motherboard temperature information.

CPU Loading: This item shows the percentage of CPU usage.

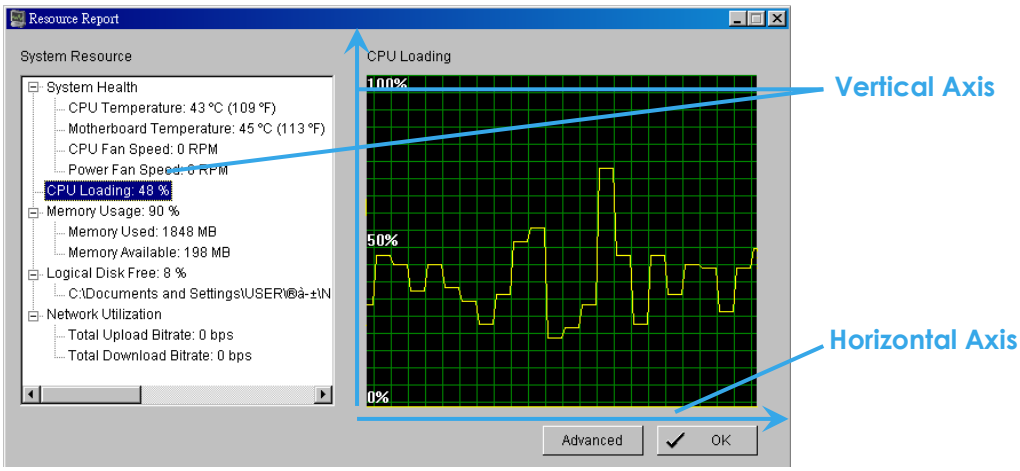
Memory Usage: This item shows the memory usage of system. "Memory Used" and "Memory Available" are included.

Logical Disk Free: This item shows the percentage of available disk space for storage.
Note: The disk directory will be the same as the one in MainConsole – Config – Setting – Storage - Location.

Network Utilization: This item shows the total bit-rate utilization for the upload and download of the computer.

11.3.4 Instant Diagram

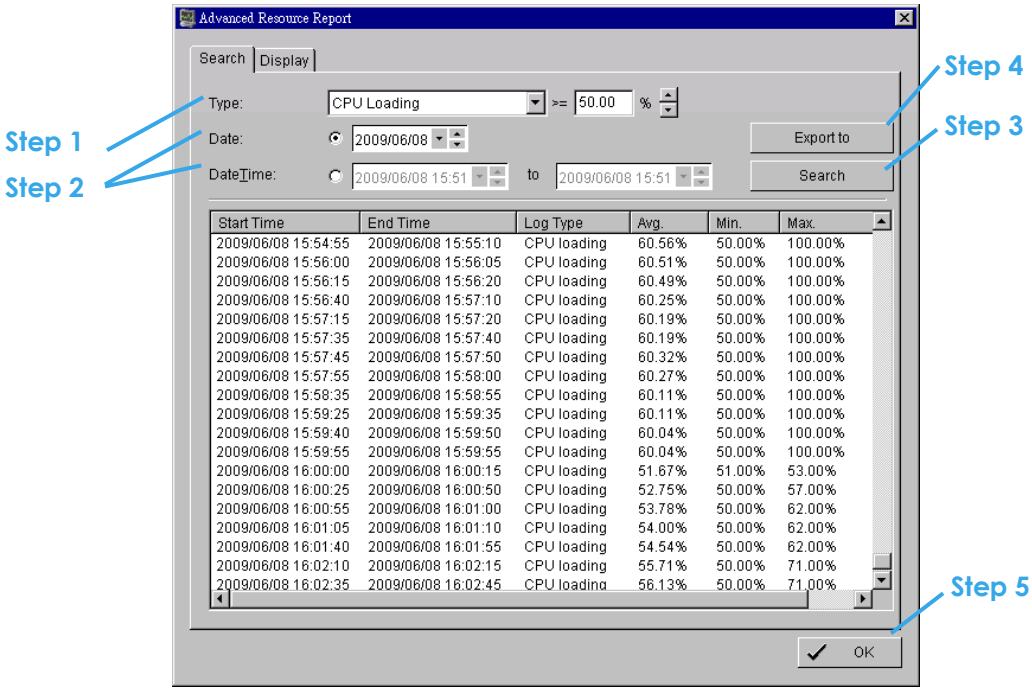
Click each item in the list to obtain the instant system diagram. The "system resource" will be displayed as each variable in Vertical Axis; the unit of Horizontal Axis will be displayed as "Per Second".



11.3.3 Advanced Resource Report

Click the Advanced button to search and export system logs in "Search" tab and obtain the history diagram of an specified period in "Diagram" tab.

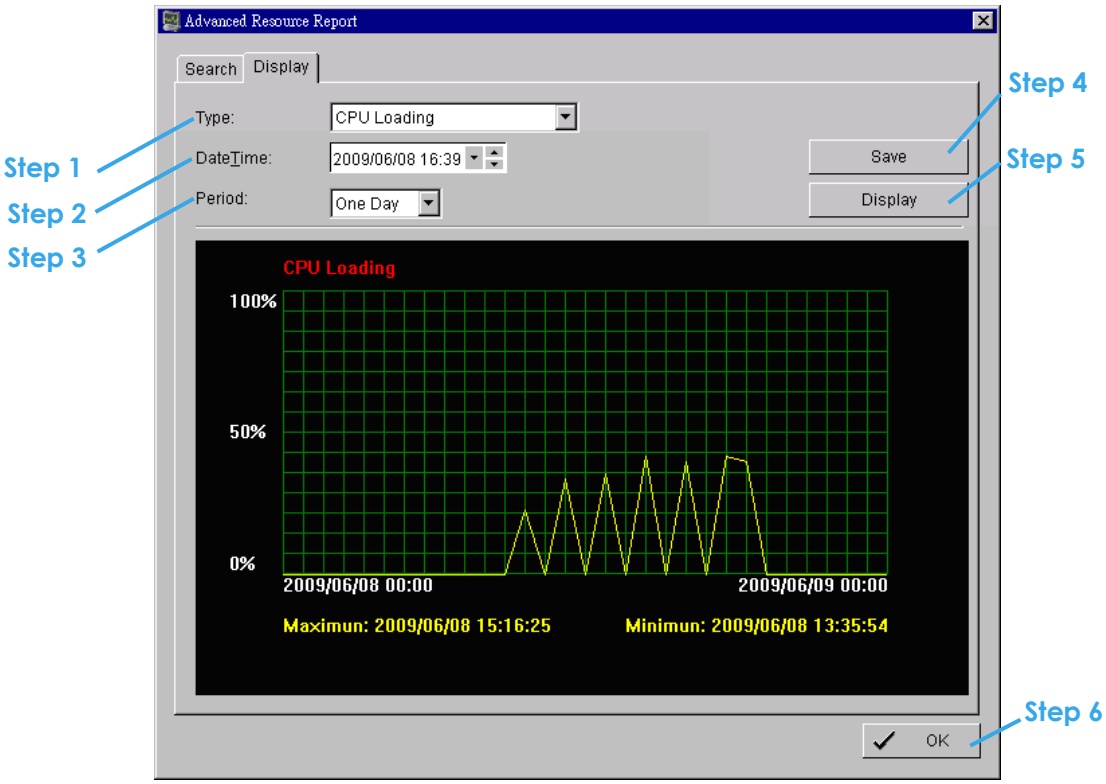
1. Search



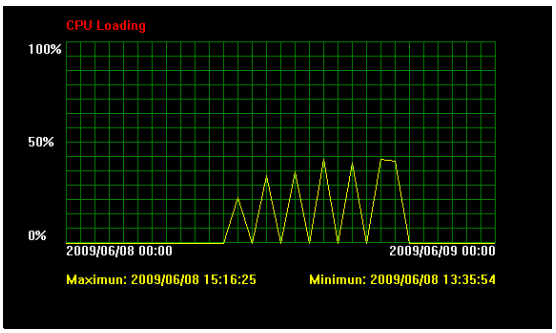
Step 1: Choose the system event type, and then select the standard percentage to search system log.
Step 2: Select the Date/Time duration to search system log.
Step 3: Click Search to start searching, the system logs will be listed below.
Step 4: Click Export to to save the system log in (*.xls) or (*.txt) format.
Step 5: Click OK to close the report window.

	A	B	C	D	E	F
1	StartTime	EndTime	LogType	Avg	Max	Min
2	2009/06/08 12:20:23	2009/06/08 12:20:28	CPU loading	54	54	54
3	2009/06/08 12:20:53	2009/06/08 12:20:58	CPU loading	65.5	54	77
4	2009/06/08 12:21:13	2009/06/08 12:21:18	CPU loading	61.67	54	77
5	2009/06/08 12:21:23	2009/06/08 12:21:28	CPU loading	65.5	54	77
6	2009/06/08 12:21:53	2009/06/08 12:21:58	CPU loading	64.2	54	77
7	2009/06/08 12:22:53	2009/06/08 12:22:58	CPU loading	62.33	53	77
8	2009/06/08 12:23:48	2009/06/08 12:23:53	CPU loading	61.86	53	77
9	2009/06/08 12:24:48	2009/06/08 12:24:58	CPU loading	59.44	51	77

2. Display



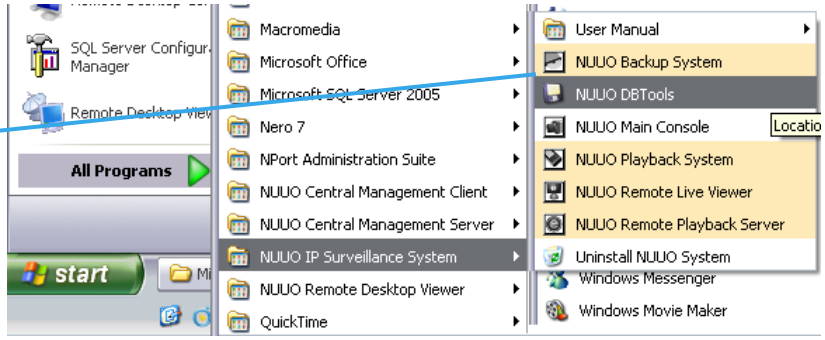
Step 1: Choose the system event type.
Step 2: Select the Date/Time to draft history diagram.
Step 3: Setup the start time and duration for charting. User can choose "One Day", "One Hour" or "One Minute" as the duration.
Step 4: Click "**Display**" to start charting, the diagram will be displayed at below column.
Step 5: Click "**Save**" to save the diagram in (*.bmp) format.
Step 6: Click "OK" to close the report window.



11.4 DB Tool

The DB Tool repairs database files and Export configurations.
Warning: improper use of this DB Tool may cause loss of recorded video.

Step 1: Execute DB Tool from program files.



Step 2: Enter the password of administrator to log in.

11.4.1 Repair Database

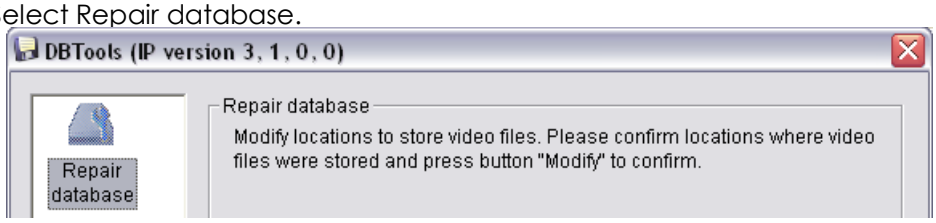
This page has three repair method, Modify Location, Verify Only, and Repair.

For modify location:

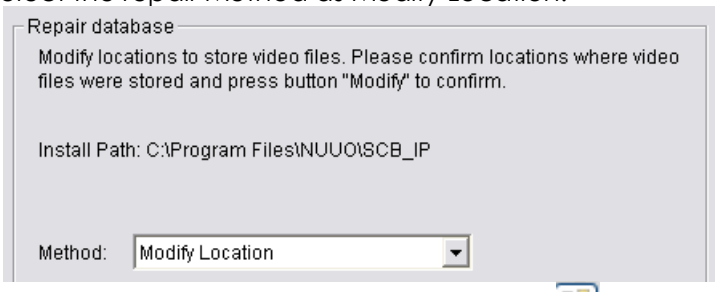
NUUO Playback system can recognize all recording video in the folders listed on MainConsole - Config - Setting - General page. For some reason, user needs to use Playback system to open recording video beyond storage location setting. For this propose, user could follow below steps to modify location by DB tool.

Note: The default storage location is in the installation directory, (ex: C:\Program Files\NUUO\SCB_IP)

Step 1: Select Repair database.

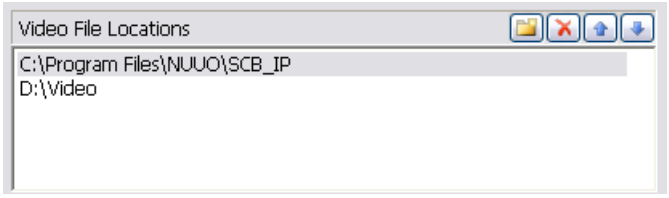


Step 2: Select the repair Method as Modify Location.

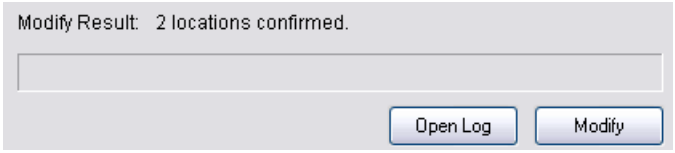


Step 3: For add database location, please click on button and use URL to choose location.
For remove database location, please choose location form list and click on button to

remove location.



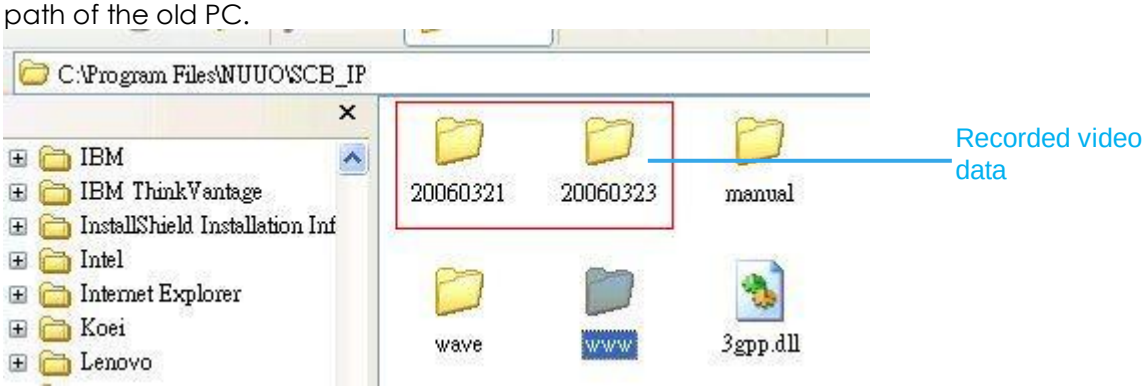
Step 4: Click on Modify button to modify location. After modification, the Modify Result will show on the panel.



Example of modify database:

In certain cases where video data needs to be transferred from one PC to another PC, user will need to perform the following:

1. Manually copy all recorded video data from the default installation path or other user-defined storage path of the old PC.



2. Manually paste all recorded video data to the default installation path or other user-defined storage path of the new PC
3. Follow previous page to add new location on new PC.
4. Old recorded video data can be viewed by NUUO playback system on the new PC.

For verify and repair proposes:

This tool is used to check and repair your database and recorded video with problems:

(1) If there are records in database, but no video file, use this DB Tools to delete records.

(2) If there are video files but no record in database, use this DB Tools to rearrange the database and find these records.

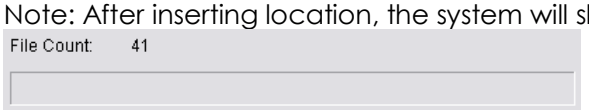
Step 1: Switch to Repair database windows.

Step 2: Select the repair Method as Verify Onlyd.

Step 3: Check the video location windows.

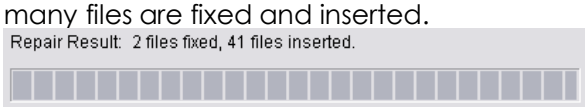
The system will list all video locations in table, but if there are any omit, please use to insert.

Note: After inserting location, the system will show files count below table.

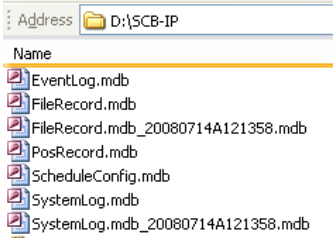


Step 4: Choose the method of "Verify Only", and click "verify". This method will only check the files without modify. Verify result will show how many files broken or missing.

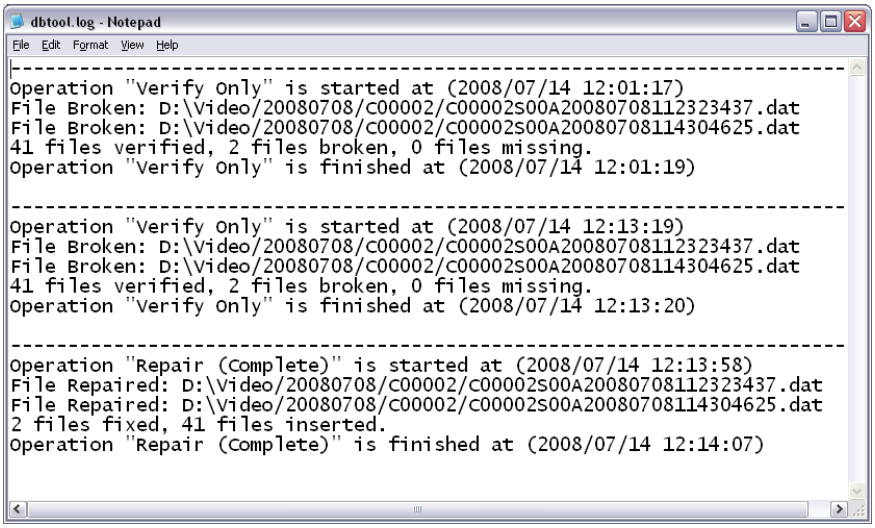
Step 5: Choose the method of "Repair (Complete)", and click "Repair". The Repair Result will show how many files are fixed and inserted.



Step 6: The repaired new database will replace the old one and the original database will change file names with extended repair date and time as below.



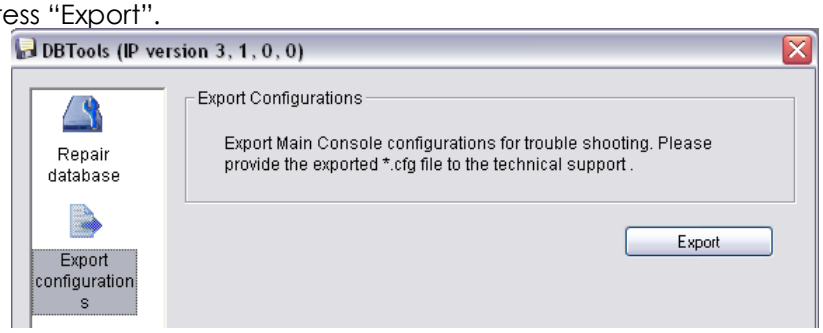
Note: Open Log is a tool to record the repaired database. It will record repair method, file operation, start time and end time.



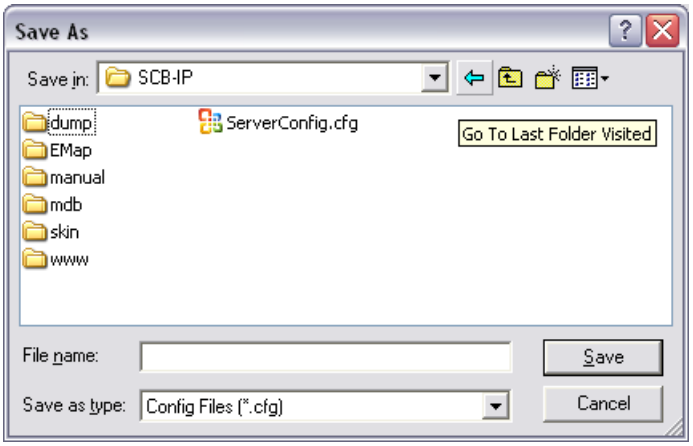
11.4.2 Export Configurations

This tool is used when user wants to export all system configurations to backup, take to another PC for NUUO technical trouble shooting.

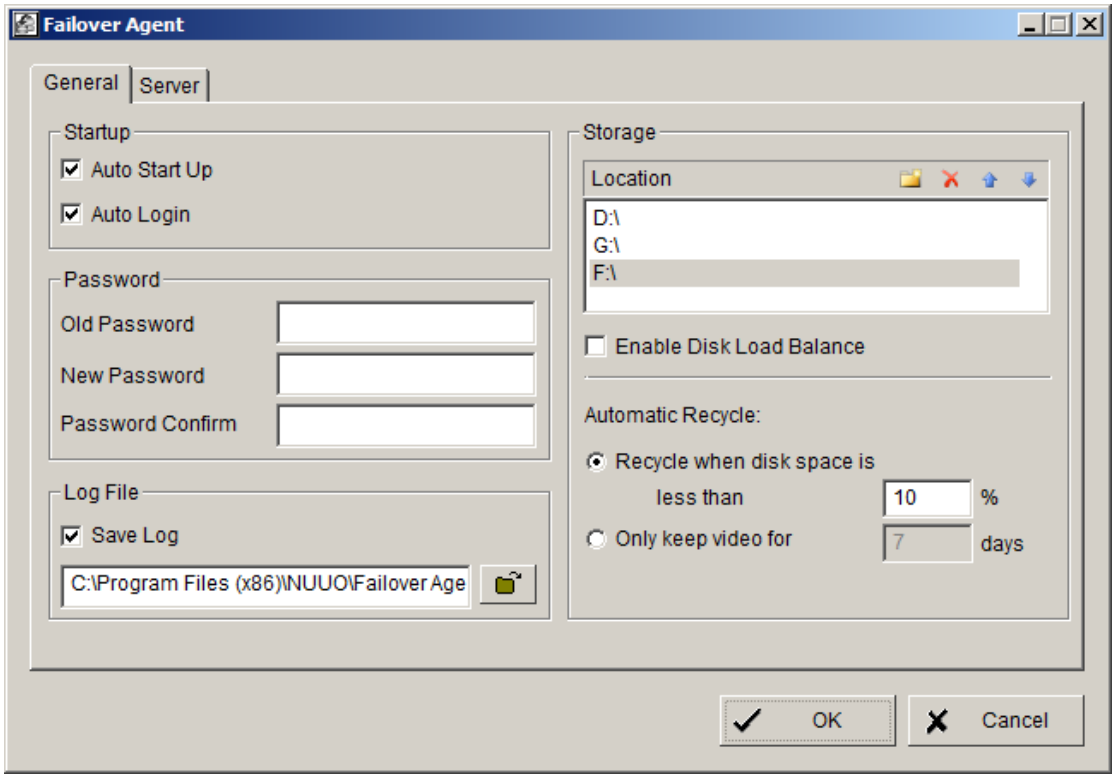
Step 1: Press "Export".



Step 2: Select the location you want to Export and type the name of the configurations.
Step 3: Press "Save" to start to import database.


Save As
Save in:
SCB-IP
dump
EMap
manual
mdb
skin
www
ServerConfig.cfg
Go To Last Folder Visited
File name:
Save
Save as type:
Config Files (*.cfg)
Cancel

12. Failover Agent



Failover Agent is a software to enable a spare recording server (the failover server) to take over the recording work once the regular recording server becomes unavailable. Hence the failover server and the Failover Agent should always be installed on another computer.

Note: Support IP+ and Video Encoder (no capture card)

12.1. Services

Failover Agent runs two services:

Service	Description
failover service	This service always runs and constantly checks the state of the relevant recording servers. This service enables any necessary takeover
recording service	This service enables the failover server to act as a recording server while the regular recording server is unavailable. This service starts when required, i.e. when the failover server takes over the recording work.

Note: Failover Agent will failover video data only. Not for No event, alarm, metadata, I/O box, Advanced Intelligent Video Surveillance.

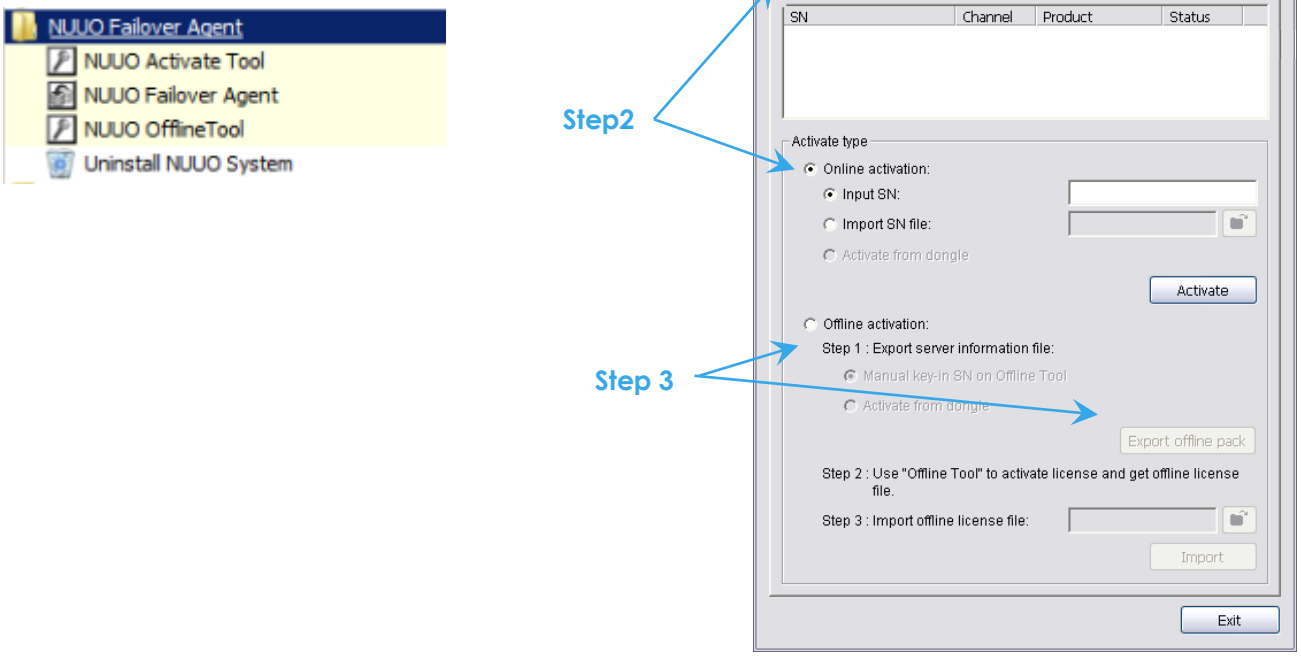
12.2. Activate Failover License

Step 1: Open License Manager Tool in **Start>>NUUO Failover Agent** file.

Step 2: Select **NUUO Activate Tool**, check the PC in **Online** network environment.

Step 3: Insert the SN, SN file to activate license.

Step 4: After software license is activated successfully, please restart Main Console.
Note: Please refer to Utilities>>License Management Tool for advanced settings.



12.3. Start and Stop Failover Agent

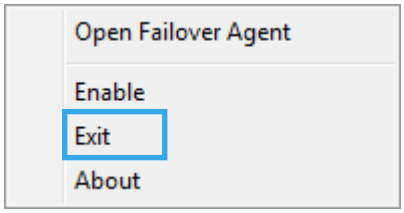
To start Failover Agent:

Click start button | **All Programs** | **NUUO Failover Agent**. Failover Agent will start and show its icon in the notification area (also "system tray").

To stop Failover Agent:

1. Right-click on Failover Agent's icon in the notification area. A menu will open.

2. Click **Exit** from the menu that opens.



Note: One OnGuard (Software watchdog) can only connect with one Failover Agent. User cannot use two Failover Agent to monitor one Mainconsole at the same time.

Note: Mainconsole and Failover Agent can not install on same server.

Note: Failover Agent will start service when in 2 hours the regular recording server becomes unavailable 5 times and each time during 15 minutes.

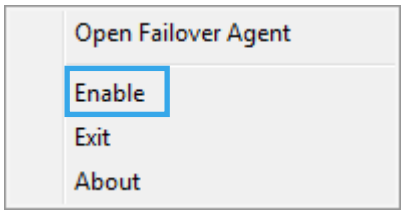
12.4. Enable and Disable Failover Service

Failover Agent supports users to enable and disable its service after Failover Agent starts. By default, the Failover Agent's service is auto-enabled after the start.

If Failover Agent has been manually disabled, its icon in the notification area appears with a red cross on it . To re-enable Failover Agent:

1. Right-click on Failover Agent's icon in the notification area. A menu will open.

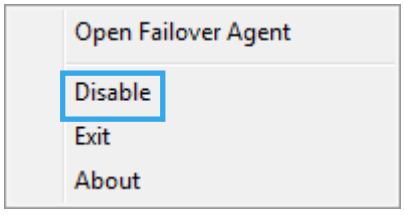
2. Click **Enable** from the menu that opens.



To disable Failover Agent:

1. Right-click on Failover Agent's icon in the notification area. A menu will open.

2. From the menu that opens, select **Disable**.

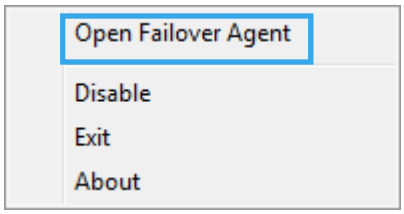


12.5. Open Failover Agent

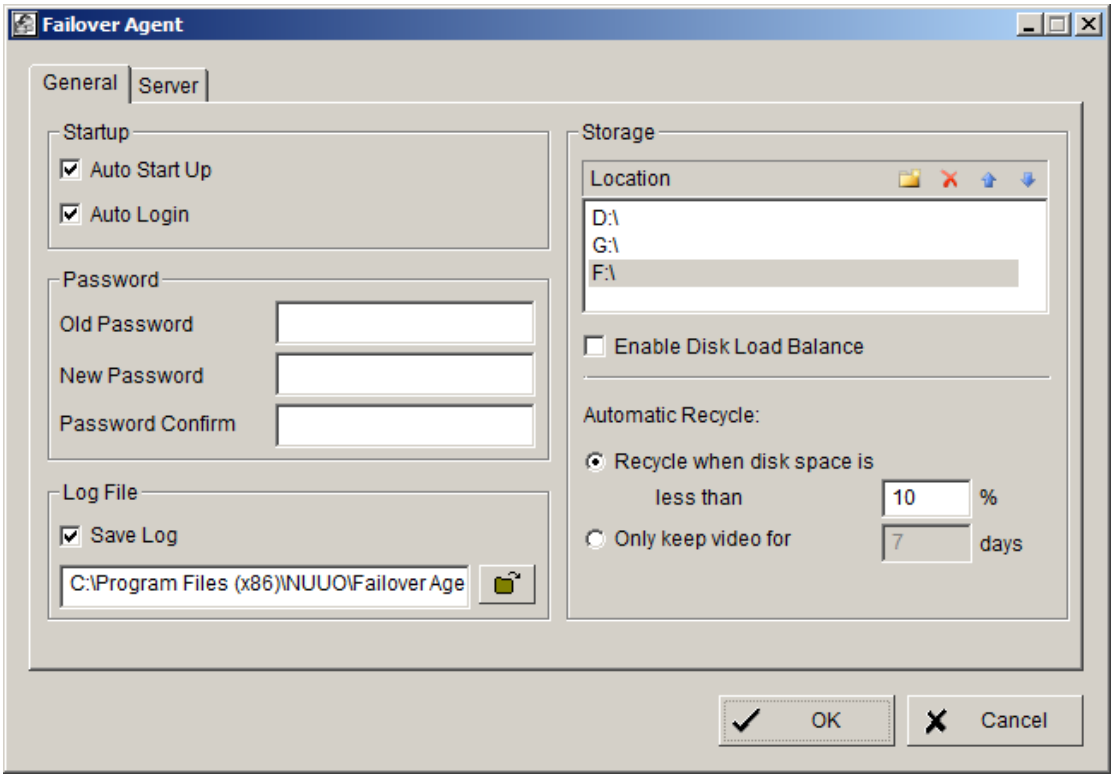
To open the Failover Agent that runs in the background:

1. Right-click on the Failover Agent icon in the notification area. A menu will open.

2. Select **Open Failover Agent** from the menu that opens.



Failover Agent will open by showing its UI onscreen.



12.6. Check Failover Agent Status

After the Failover Agent starts, its status can be checked by its icon in the notification area.

Failover Agent's service is disabled. The icon has a red cross on it.

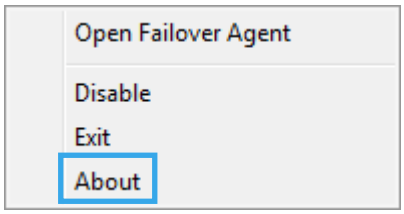
Failover Agent's service is enabled.

12.7. View Version Information

Knowing the version of your Failover Agent is helpful when you contact for support. To know your Failover Agent version info:

1. Right-click on the Failover Agent icon in the notification area. A Menu will open.

2. From the menu that opens, select **About**.



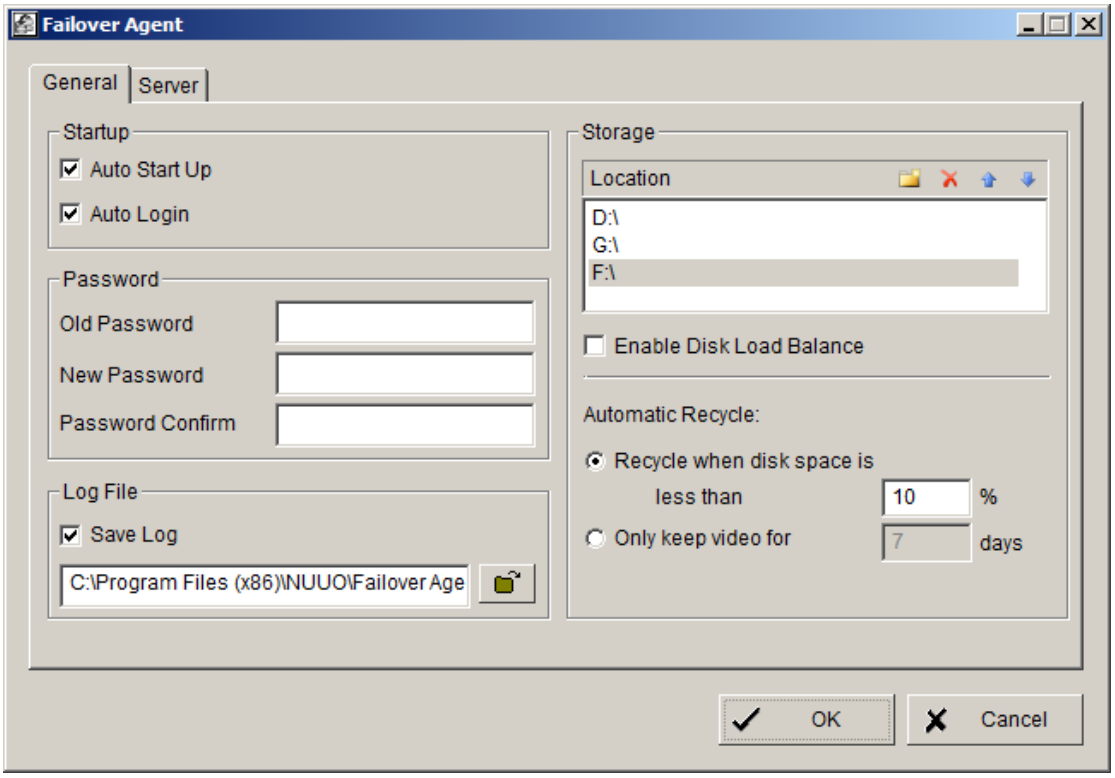
A small dialog will opens showing the exact version of your Failover Agent.

12.8. General Settings

Failover Agent features a **General** tabbed page to set the preference using Failover Agent.

To access **General** tabbed page:

Open Failover Agent as described in 12.4. Open Failover Agent. Failover Agent will open.



Make the settings that meet your need by referencing the following:

12.8.1. Startup

Startup group box sets how Failover Agent acts when it starts.

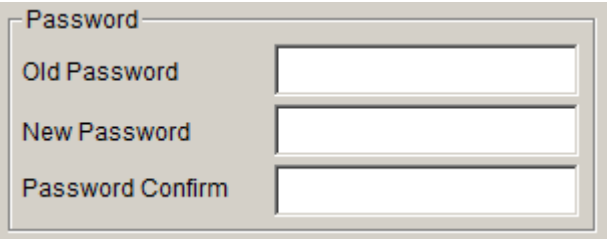
Featured settings are:

Settings	Description	Default
Auto Startup	Sets Failover Agent to auto-start when the failover server re-starts up after accidental shutdown.	Selected (Enabled)
Auto Login	Sets Failover Agent to auto-login to enable failover service when it starts.	Selected (Enabled)

Click **OK** button to apply the change and quit setting; or click **Cancel** button to quit setting without saving the change.

12.8.2. Password

Failover Agent features a password authorization to control whether to enable failover service. Users are requested to set up such password when they installed Failover Agent. If such password should need to change later, it should be changed here in this **Password** group box.



Featured settings are:

Settings	Description	Default
Old Password	Enters the old password.	--
New Password	Assigns the new password.	--
Password Confirm	Enters the new password again.	--

Click **OK** button to apply the change and quit setting; or click **Cancel** button to quit setting without saving the change.

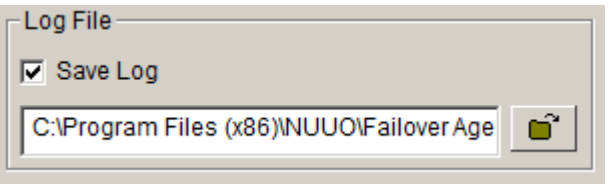
Note: Admin only between Mainconsole and Failover server. Failover operation use ID: Admin only

Note: We recommend if users renew user account, please connect OnGuard to Failover Agent and updates user information again.

12.8.3. Log File

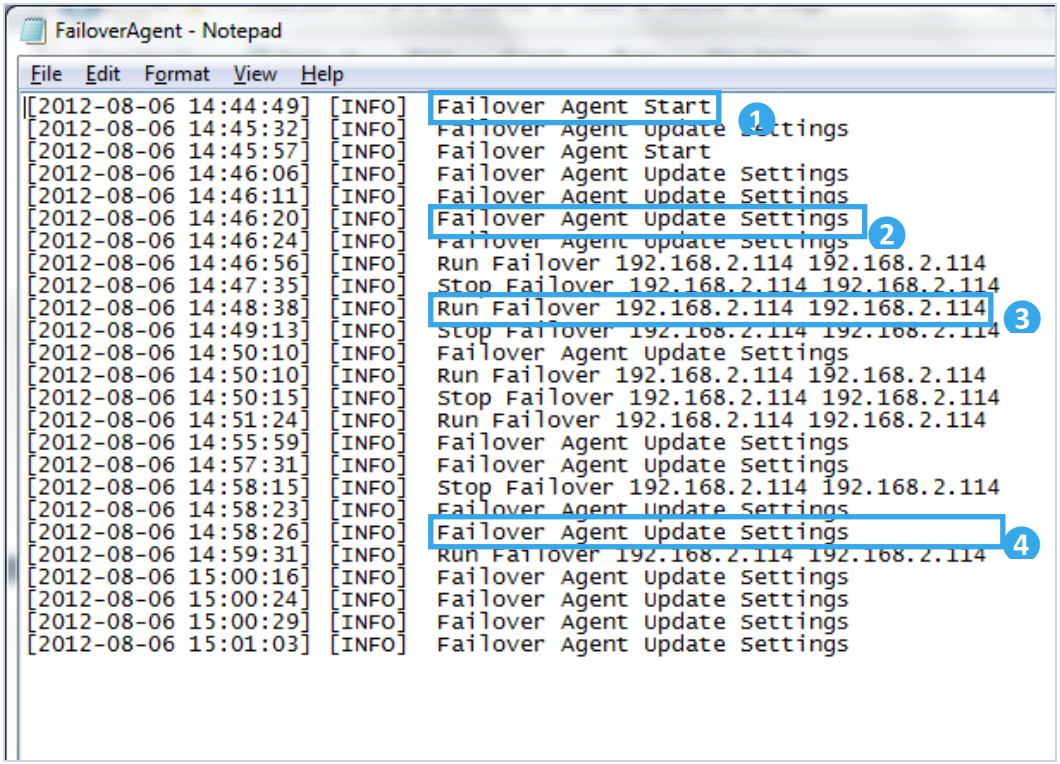
Failover Agent supports recording its operation history into a log file for necessary data analysis. The log file is created in .txt format with "FailoverAgent" for the filename.

To access log file setting:



Setting	Description	Default
Save Log	Enables recording Failover Agent's operation history to a log file.	Selected (Enabled)
Field	Sets where to save the log file.	The storage where Failover Agent is installed to, for example C:\program files\nuuo

The log file is created in .txt format. Take a closer observation of such log file:



1. Failover Agent launches.

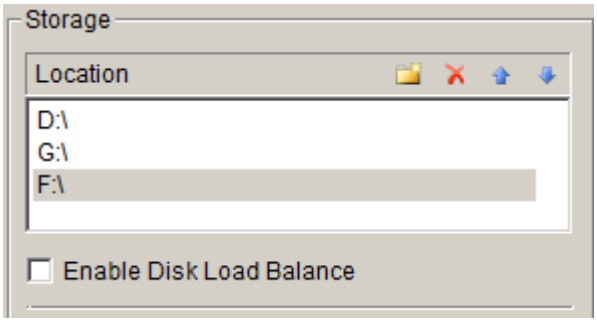
2. One or more changes are written to Failover Agent settings.

3. Failover service is performed. The failover server takes over the recording server named "192.168.2.114" at IP address 192.168.2.114.

4. Failover service stops. The failover server stops taking over the original recording server named "192.168.2.114" at 192.168.2.114 and returns the recording work to it.

12.8.4. Storage

Storage group box assigns the storage to store the recorded videos and manages storage-related settings.



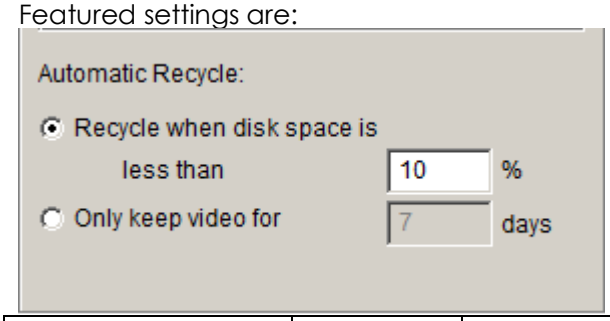
Featured settings are:

Settings		Description	Default
Location		Adds new storage.	--
		Deletes the selected storage.	--
		Raises the selected storage to higher priority.	--
		Brings the selected storage to lower priority.	--
Enable Disk Load Balance		Evenly distributes recording to multiple drives, which will increase system efficiency.	Deselected (Disabled)

Note: Keep video in failover server, not collect back to recording server.

12.8.5. Automatic Recycle

Automatic Recycle group box encloses the settings to delete the out-dated data to save storage space.
Featured settings are:



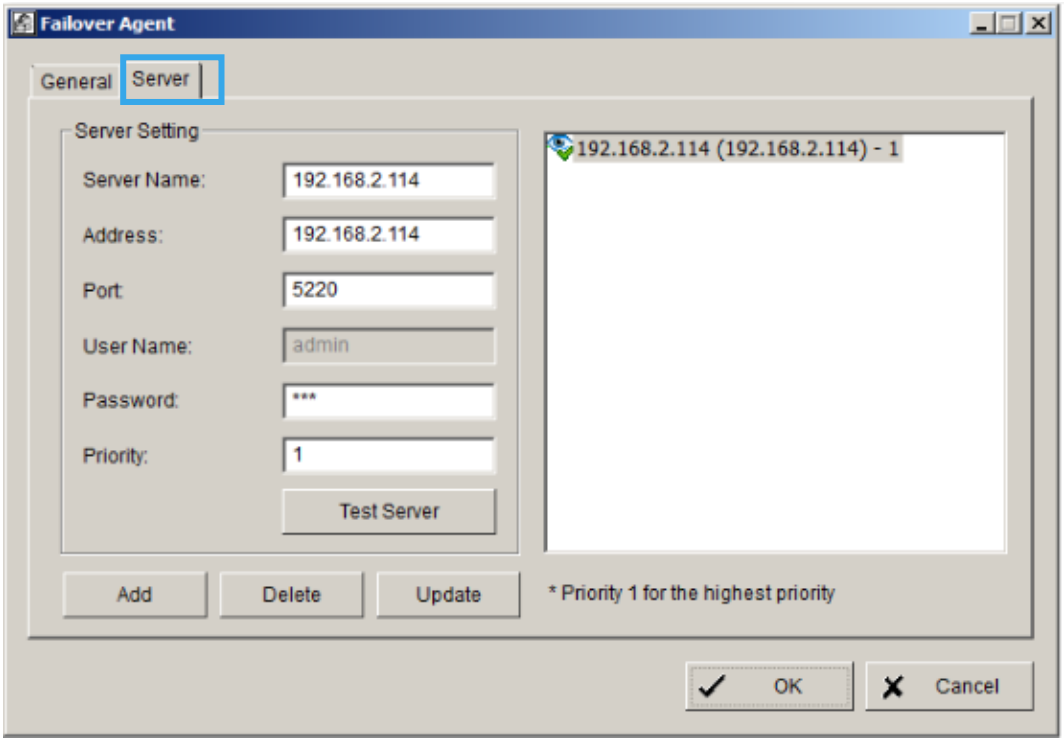
Settings	Element	Description	Default
Recycle when disk space is less than	Radio button	Enables the system to recycle.	Selected (Enabled)
	Field	Sets the lowest remaining disk space for the system to start to recycle.	10%
Only keep video for	Radio button	Enables the system to delete older videos.	Deselected (Disabled)
	Field	Assigns a number of days to keep the recorded videos.	7 (by unit of day)

12.9. Server Settings

To access the server settings:

1. Open Failover Agent as described in 12.4. Open Failover Agent. Failover Agent will open showing **General** tabbed page.

2. Click **Server** tab. **Server** tabbed page will open.

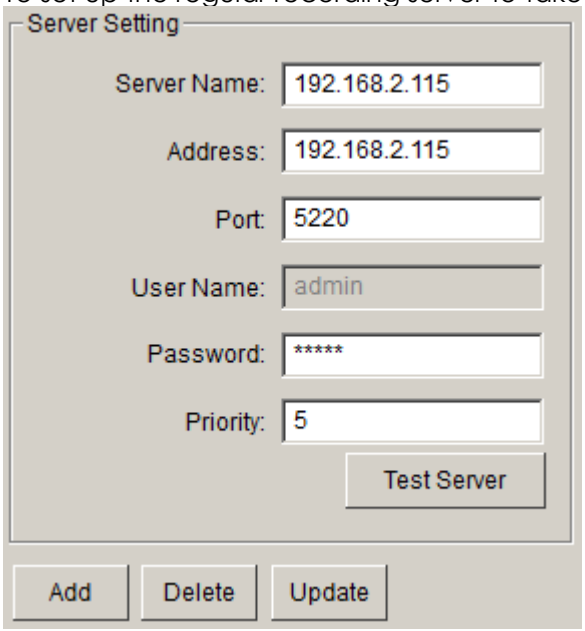


Make the settings that meet your need by referencing the following:

Note: Support up to 8 Mainconsole servers to 1 Failover server and recommend to use 3 Mainconsole servers to 1 Failover server.

12.9.1. Set up A Server

To set up the regular recording server to take over when necessary:



1. In **Server Name**, **Address** and **Port** fields, enter the name, address and port number of the regular recording server to take over.

2. In **User Name** and **Password** fields, enter the user name and password to log in the regular recording server to take over.

3. In **Priority** field, enter the number (1-8) of the recording server priority. Priority 1 for the highest priority.

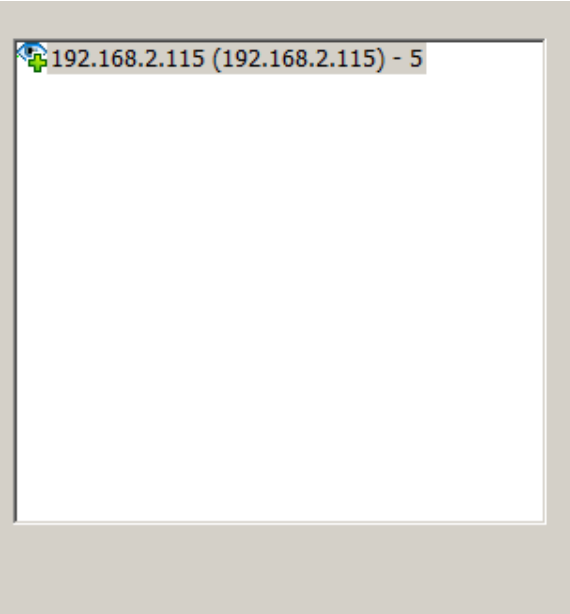
4. Press **Test Server** button to check if the server is available.

5. Press **Add** button to apply the setup. The recording server will be added to the server

Note: Share same port (NUSP/NUPP) and support LAN only.

12.9.2. Change Server Setting

To make any change to an existing server setting:



1. On the server list, select the server to change.

2. Make change to the setting as described in 12.8.1. Setup.

3. Press **Update** button to apply the change.

Note: In this status, OnGuard and Failover Agent need to connect again to get Mainconsole server information.

12.9.3. Delete A Recording Server

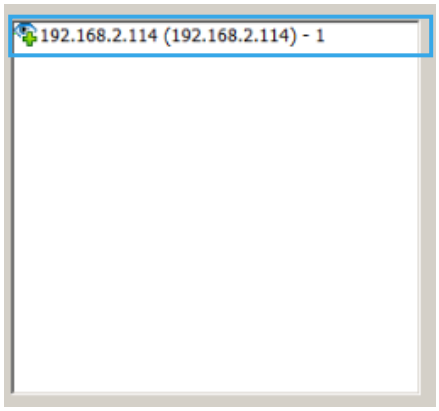
To remove a server:

1. On the server list, select the server to delete.

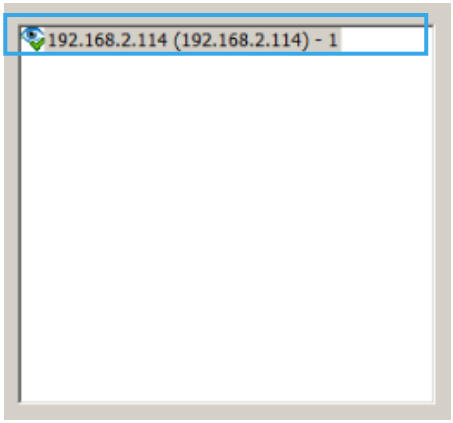
2. Press **Delete** button to remove the selected server.

12.9.4. Server List

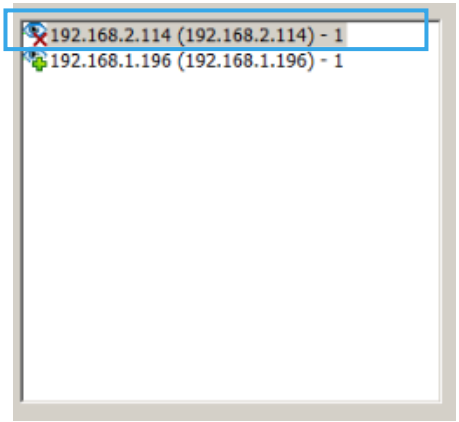
1. OnGuard have linked to Failover Agent but not connected yet.



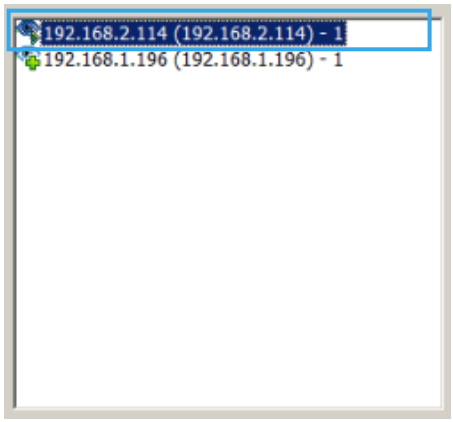
2. OnGuard connects to Failover Agent



3. Failover Agent disconnect with Mainconsole



4. Failover Agent is taking over Mainconosole now



Note: Failover Agent not support Web client, MSAD and DDNS.

12.9 Remote Live viewer and Remote playback

12.9.1Remote Live viewer

Display a complete list of the server(s), group(s) and camera(s) that are added to the system.
Server View: Cameras are listed according to recording server.
And pop up message with Failover is running.

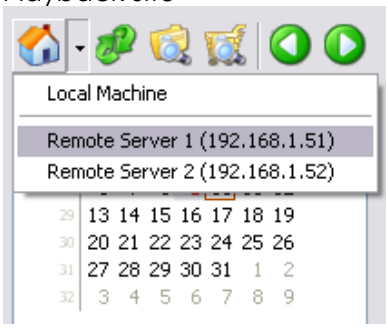
Server View

Note: Failover agent needs to connect remote live viewer or playback first then Failover agent will automatically connect to live viewer/playback and get failover recording.

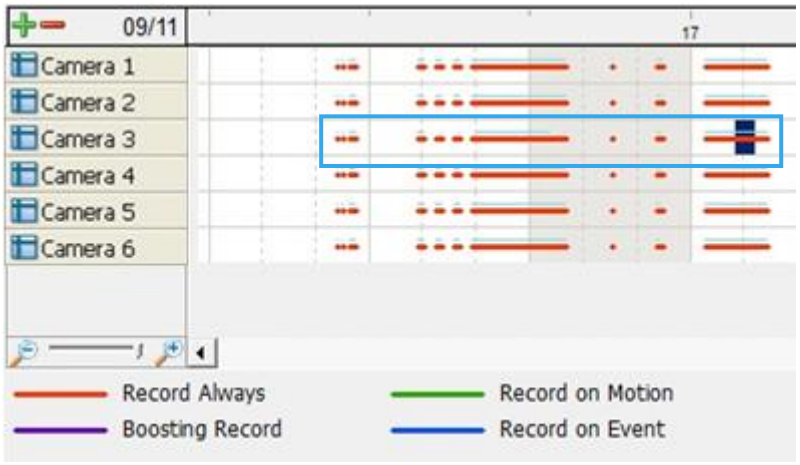
Note: For Failover agent recording, user still login original Mainconsole server and will automatically transfer to Failover agent.

12.9.2 Remote Playback

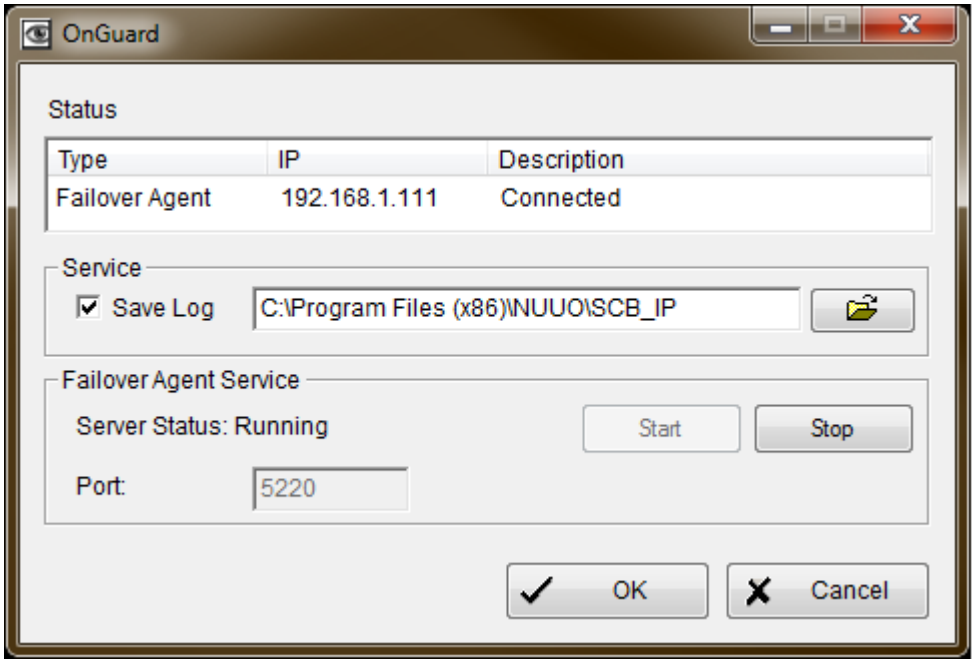
Go to Date/Time Panel and click on the icon on the top of the display window to access the Remote Playback Site



Video records are displayed as a thin line on the time table. Check **Show Recording Schedule** to show the defined period for scheduled recording. It is shown as a thick line in light blue color for Failover recording mode.



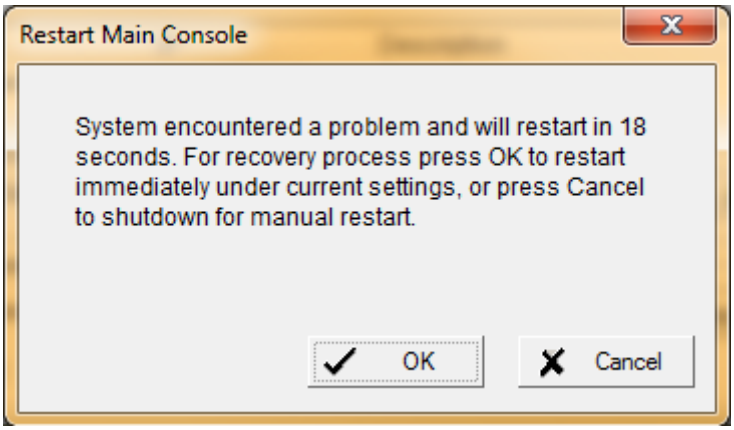
13. OnGuard



OnGuard is the software watchdog attached to Main Console to watch over Main Console's service on a regular recording server. OnGuard starts when Main Console launches and stops when Main Console quits.

13.1. Using OnGuard

Once the Main Console (the regular recording server) stops responding, OnGuard will prompt to restart the recording server by showing a dialog. Click **OK** to confirm to restart or click **Cancel** to quit Main Console for later manual restart.

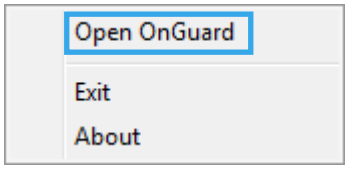


Note the failover server (Failover Agent) won't take over the recording server (Main Console) unless the recording server stops responding for 5 times within one hour.

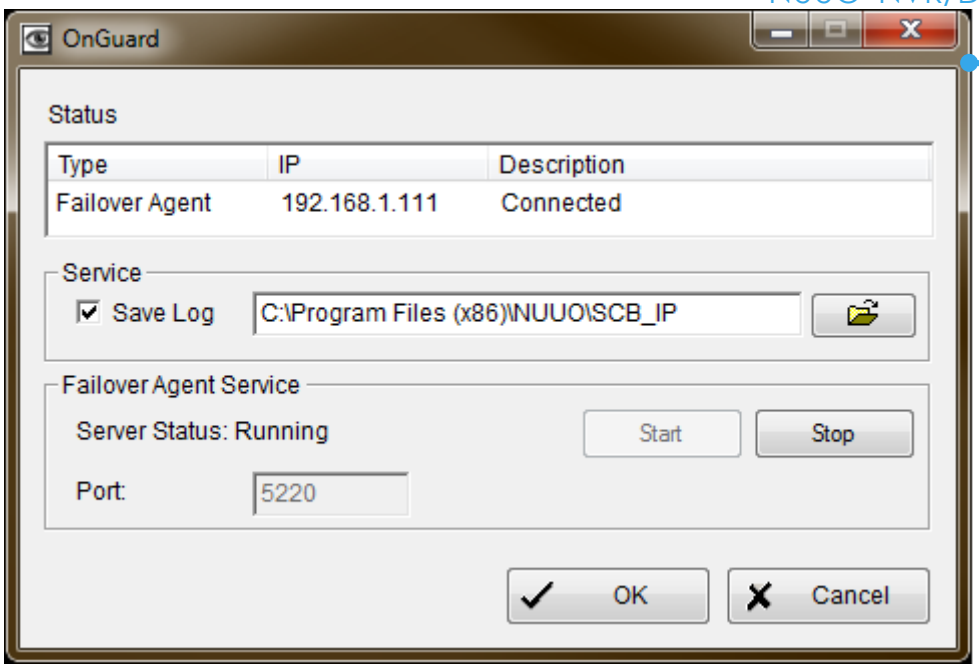
13.2. Open OnGuard

To see OnGuard on screen, minimize Main Console by click button at the lower-left on Main Console screen. If OnGuard is minimized and therefore isn't viewable, open it by taking the following action:

1. Right-click on its icon in the notification area. A menu will open.
2. From the menu that opens, select **Open OnGuard**.



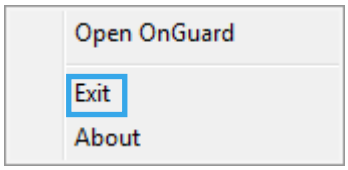
OnGuard then opens.



13.3. Quit OnGuard

If it is necessary to exit OnGuard, take the following action:

1. Right-click on its icon in the notification area. A menu will open.
2. From the menu that opens, select **Exit**.

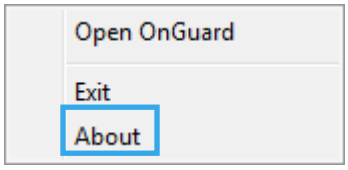


OnGuard then quits.

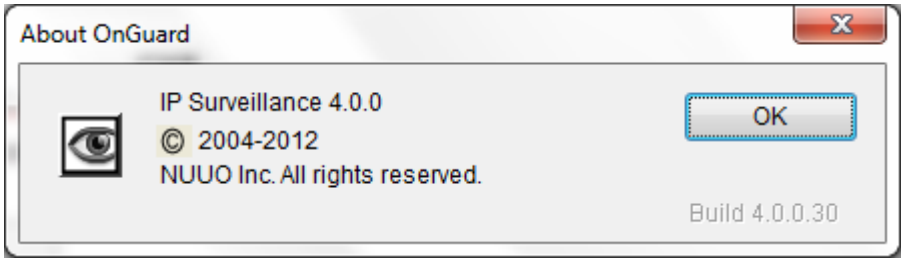
13.4. Version Information

Knowing the version of your OnGuard is helpful when you contact for support. To know your OnGuard version info:

1. Right-click on the OnGuard icon in the notification area. A Menu will open.
2. From the menu that opens, select **About**.



A small dialog will opens showing the exact version of your Failover Agent.

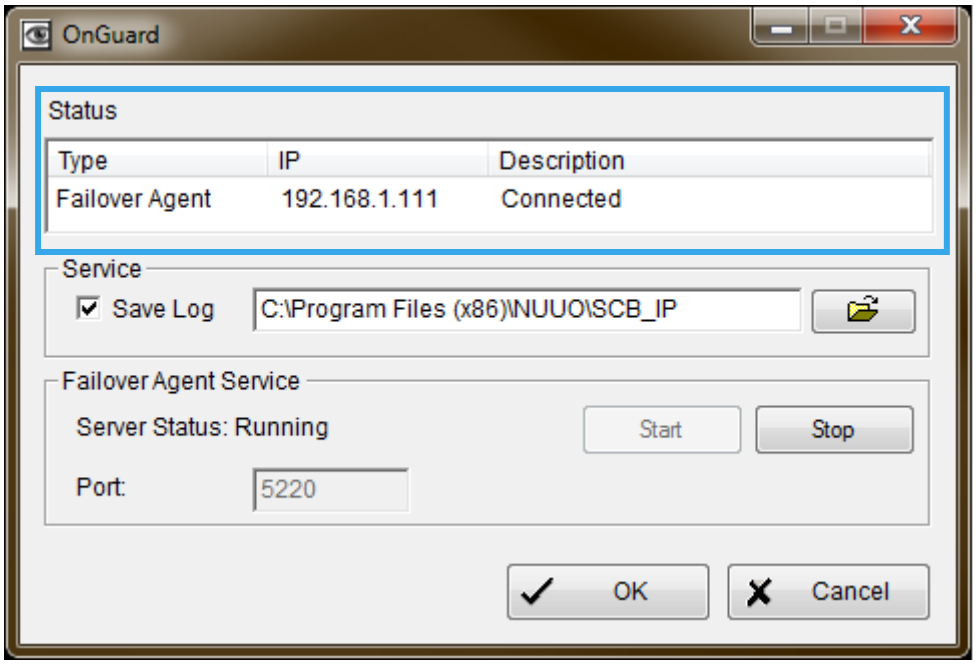


13.5. Check Connection Status

To check OnGuard's connection status with the remote Failover Agent:

1. Open OnGuard as described in 13.2. Open OnGuard. OnGuard will open onscreen.

2. Check the connection status in the **Status** box.



The information provided are:

Element	Description
Type	Type of the service connected to, which is Failover Agent.
IP	Delivers the IP address of the Failover Agent connected to.
Description	Delivers the connection status with the Failover Agent.

13.6. Log File

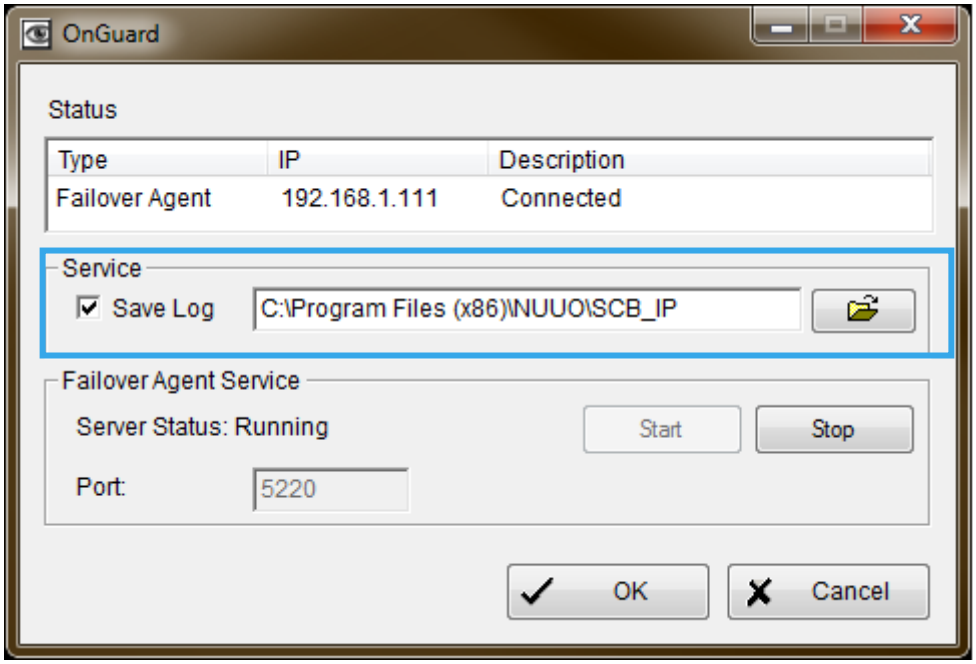
OnGuard supports recording its operation history into a log file for necessary data analysis.

To configure file log setting:

1. Open OnGuard as described in 13.2. Open OnGuard. OnGuard will open onscreen.

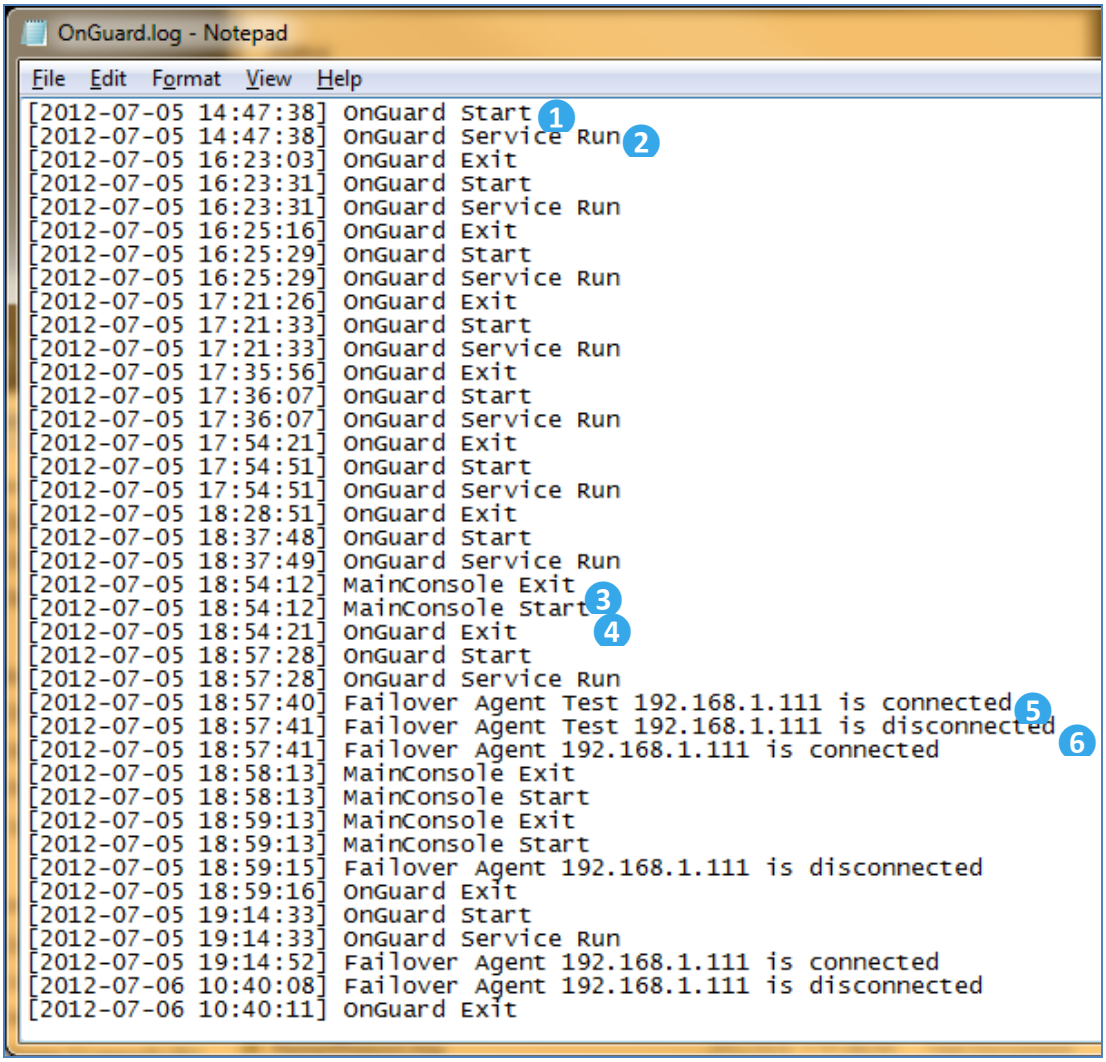
2. Find the **Service** box.

3. Select **Save Log** to enable log file and browse for a desire folder to save the log file; or deselect **Save Log** if log file isn't needed.



The log file is created in .txt format with the filename "OnGuard". The log file helps users to know the exact time when the recording server stops responding.

Take a closer observation of such log file:



1. OnGuard Starts.

2. OnGuard's Failover Agent service starts. See **13.7. Failover Agent Service** to know how to start it.

3. Main Console quits.

   Note: Main Console abnormal quit then will log.

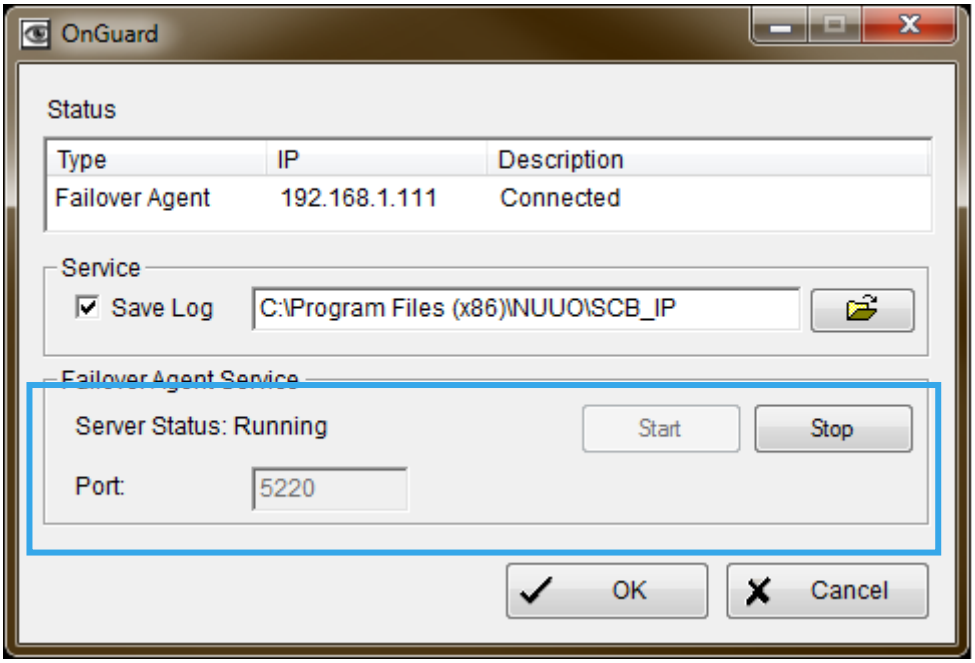
4. Main Console launches.

5. OnGuard becomes connected with the remote Failover Agent. The connection is initiated by the Failover Agent.

6. OnGuard is disconnected from the remote Failover Agent.

13.7. Failover Agent Service

The **Failover Agent Service** box delivers the status of OnGuard's Failover Agent service. This box also features a setting to manage the port number of the Failover Agent.



Featured settings are:

Element	Description	Default
Server Status label	This label delivers the status of OnGuard's service for the Failover Agent. When the service is running it shows "Running"; otherwise it shows "Stopped".	--
Start button	Press this button to start OnGuard's Failover Agent service.	--
Stop button	Press this button to stop OnGuard's Failover Agent service.	--
Port setting	Sets the port number of the remote failover server (Failover Agent) for communication.	5220 (Note)

Note: 5220 is the default port number which the recording server and failover server communicate with each other. The failover server relies on this port to gets the configuration of the recording server taken over.

Note: Remote Live viewer and Playback will not take

Appendix A – Smart Phone Client

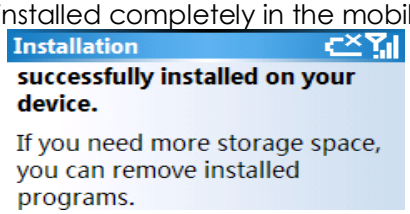
See the sections below to find how to install and execute SP Client.

Note:

1. The different between Smart Phone Client is navigation of operation, user can only control client with phone buttons.
2. The resolution of SP Client is limited in **240*320** (QVGA).

1.1 Install Smart Phone Client

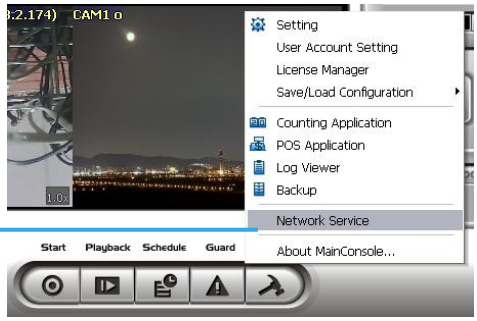
Step 1: Connect mobile device to the PC.
Step 2: Insert the installation CD and click on Smart Phone Client Installation to install application in device.
Step 3: Check the client application is installed completely in the mobile device.



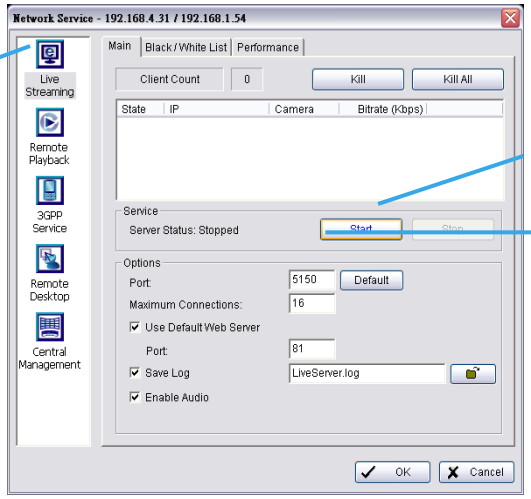
1.2 Execute Smart Phone Client

1.2.1 Main Console setting

Step 1: Go to Config and select Network Service

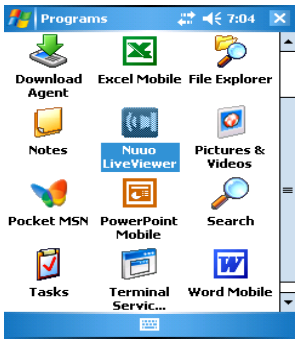


Step 2: Select "Live Streaming", and then click "Start".
Note: The "**Port**" selected here will be the same with the one in Smart Phone.



1.2.2 Execute and Login

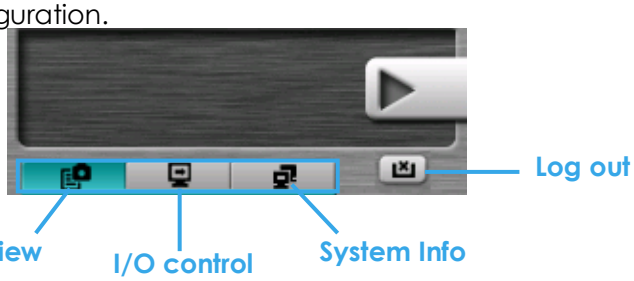
Step 1: Make sure your Smart Phone device is connected to network, and then go to Start - Programs - NUUO Smart Phone Client to execute application.



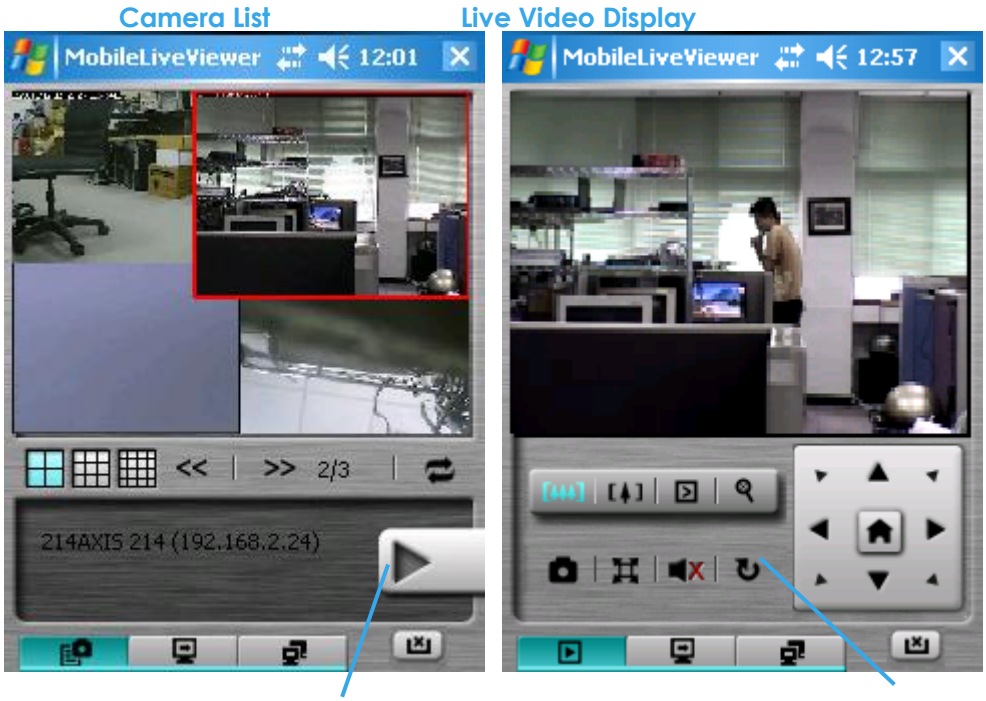
Step 2: Insert Address, Port, Name and Password of the server and click on to login.

1.3 /Smart Phone Client Overview

There are 3 main pages of Client application: **Monitor Preview**, **I/O Control** and **System Info**. Switch between these buttons to adjust overall configuration.



1.3.1 Live View



Displays all "snapshots" of channels connected to server as camera list. Click on indicated snapshot to get

the channel information, and then click on to display live video.

Note: The Screen Division and Refresh option could help to quick find the channel.

Live Video Display:

Live View panel could display "live video", control PTZ, and snapshot. Click to go back camera list.

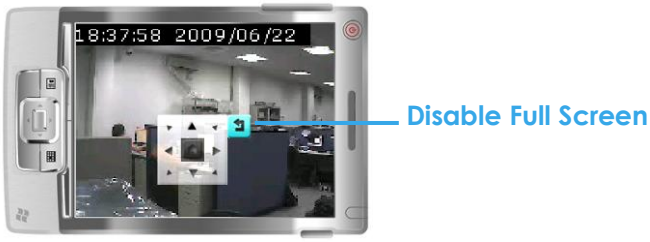
PTZ Control: Click on PT Control Panel and Zoom Out/In to control physical PTZ camera or adjust digital PTZ under digital PTZ mode.

Note: To switch between "Digital PTZ" and "Physical PTZ", simply click on button.

Preset Go: Click to select indicated preset point.

Snapshot: Click to take the snapshot and save it to default folder.

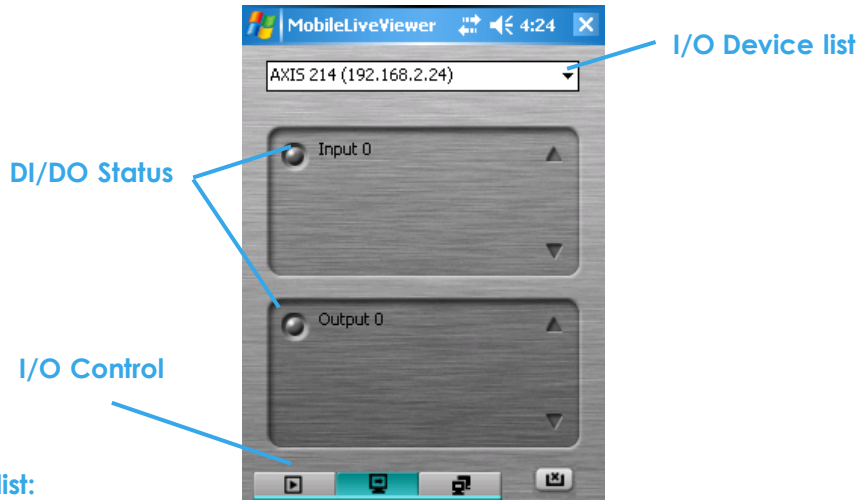
Full Screen: Click to toggle to the "Full Screen Mode", right click on screen to obtain the PT control panel and disable full screen display.



Enable Audio: Click to enable the audio of current channel.

1.3.2 I/O Control

Select "I/O Control" button to monitor status of DI/DO devices, and control DO devices.



Select and monitor the device connected with Server.

DI/DO status:

Monitor the DI/DO status synchronized with Server, and then click Output button to trigger the DO action.

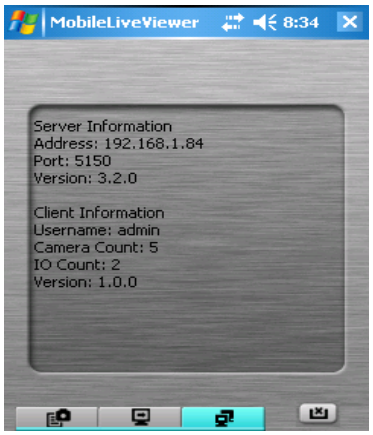
Gray icon indicates the normal status of DI/DO devices.

Red icon indicates the alarm status of DI/DO devices.

Green icon indicates the synchronization process.

1.3.3 System Info

Display the server and client information. Server information includes address, post, and version. Client information includes login user, count of camera and I/O device with access authority and version.



For NUUO's latest release of Android application based client NUUO iViewer, please log on to http://www.nuuo.com/faq.php?node=1315 for more information and product demo videos.

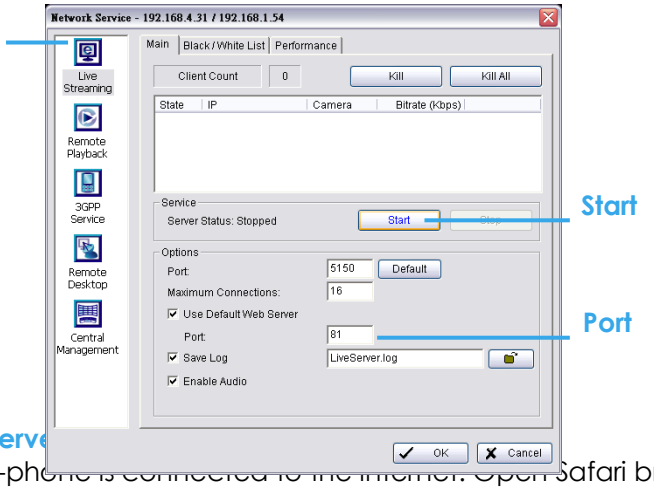
Appendix B – iPhone Browser

NUUO Live Streaming service can handle requests from iPhone's Safari browser. This section will guide you how to use this feature with iPhone devices.

1.1 Configuration from NUUO server

Step 1: Go to "Config" and select "Network Service"

Step 2: Select "Live Streaming", and then click "Start".
Note: The "Port" selected here will be the same as the web live view and web playback.



1.2 Connect to NUUO serve

Step 1: Make sure the I-phone is connected to the Internet. Open Safari browser and enter the IP address or DDNS "name" of the server followed by the connecting port.
Example: http://192.168.1.16:8080/

Note: 192.168.1.16 is the IP address of the server.
8080 is the port specified in "Use Default Web Server" in Network Service.

Step 2: Enter user name and password to login NUUO MainConsole Server, select camera to view live video.

1.3 Live Display

To view live video, select camera from list, use touch panel to zoom in the video.

To switch video, please click to back to list and select another camera to view the video.

1.4 PTZ Control

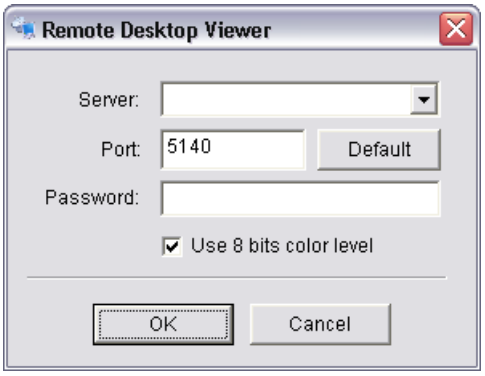
With cameras that support PTZ function, the PTZ panel will show as picture. User can control camera to pan, tile and zoom in/zoom out manually, or move to pre-set location by select PTZ preset point from drop down list.

For NUUO's latest release of iPhone / iPad application based client NUUO iViewer, please log on to http://www.nuuo.com/faq.php?node=1315 for more information and product demo videos.

Appendix C - Remote Desktop Tool

How to install NUUO Remote Desktop Tool

Step 1: Insert the Installation CD.
Step 2: Go to Remote Desktop Viewer directly and Run Setup.exe file.

How to Start NUUO Remote Desktop Tool

Step 1: Start - All Programs - NUUO Remote Desktop Viewer - Remote Desktop Viewer.
Step 2: Enter address, Port, Password of server. Enable the option to use 8 bits color level to show steadier screen.
Step 3: Click OK to Start Remote Desktop.