NVR200/300/500 Series Network Video Recorders User Manual

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Zhejiang Uniview Technologies Co., Ltd.

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Notice

The information in this manual is subject to change without notice. Every effort has been made in the preparation of this manual to ensure accuracy of the contents, but all statements, information, and recommendations in this manual do not constitute the warranty of any kind, express or implied.

Environmental Protection

This product has been designed to comply with the requirements on environmental protection. For the proper storage, use and disposal of this product, national laws and regulations must be observed.

Preface

Audience

This manual is intended for:

- Surveillance system planners
- Field technical support and servicing engineers
- Software installation, configuration, and servicing administrators
- Product users

Precautions

- If this equipment is used in a domestic environment, radio disturbance may arise. When such trouble occurs, you might be required to take corrective actions.
- Do not remove the dismantlement-preventive seal from the chassis cover of the device without permission. If you want to open the chassis, contact the local agent of our company for help. Otherwise, we shall not be held liable for any consequence caused thereby.
- Make sure the device is sturdy and well grounded and meets heat dissipation and lightning protection requirements. Avoid vibration when using the device.
- Provide a stable and compliant power supply before powering on the device.
- Before performing the verification (refer to section "Check Before Power-On"), make sure that the
 power is disconnected, for fear of bodily injury or equipment damage caused by incorrect cable
 connection.
- Power interruption may cause hard disk damage or abnormal functions. To shut down the device, strictly follow the instructions. If power interruption often occurs, configure an uninterrupted power supply (UPS).

Safety and Compliance Information

Conventions Used Symbol

The symbols in this chapter are shown in the following table. They are used to remind the reader of the safety precautions during equipment installation and maintenance.

Safety Symbol	Description
<u> </u>	Generic alarm symbol: To suggest a general safety concern.
A	ESD protection symbol: To suggest electrostatic-sensitive equipment.
4	Electric shock symbol: To suggest a danger of high voltage.

Safety Information



WARNING!

Installation and removal of the unit and its accessories must be carried out by qualified personnel. You must read all of the Safety Instructions supplied with your equipment before installation and operation.

Warnings:

- If the product does not work properly, please contact your dealer or the nearest service center. (We shall not assume any responsibility for problems caused by unauthorized repair or maintenance.)
- To reduce the risk of fire or electrical shock, do not expose this product to rain or moisture.
- This installation should be made by a qualified service person and should conform to all the local codes.
- Please install blackouts equipment into the power supply circuit for convenient supply interruption.
- The separate earthing terminal must be permanently connected to earth.
- For AC supplied model: The plug-socket combination must be accessible at all times as it serves as the main disconnecting device.
- Before the power cable is installed or removed, the power must be turned off.
- To avoid heat accumulation, good ventilation is required for a proper operating environment.
- Improper use or replacement of the battery may result in hazard of explosion. Please use the manufacturer recommended battery type.



Caution: Fiber optic ports – optical safety.



Never look at the transmit laser while the power is on. Never look directly at the fiber ports and the fiber cable ends when they are powered on.

Caution: Use of controls or adjustments to the performance or procedures other than those specified herein may result in hazardous laser emissions.

Regulatory Compliance

FCC Part 15

This equipment has been tested and found to comply with the limits for digital device, pursuant to part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference when the equipment is operated in a commercial environment. This equipment generates, uses, and can radiate radio frequency energy and, if not installed and used in accordance with the instruction manual, may cause harmful interference to radio communications. Operation of this equipment in a residential area is likely to cause harmful interference in which case the user will be required to correct the interference at his own expense.

This product complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- **1.** This device may not cause harmful interference.
- **2.** This device must accept any interference received, including interference that may cause undesired operation.

LVD/EMC Directive



This product complies with the European Low Voltage Directive 2006/95/EC and EMC Directive 2004/108/EC.

WEEE Directive-2002/96/EC



The product this manual refers to is covered by the Waste Electrical & Electronic Equipment (WEEE) Directive and must be disposed of in a responsible manner.

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1 Getting Started

Logging In to the Web Interface

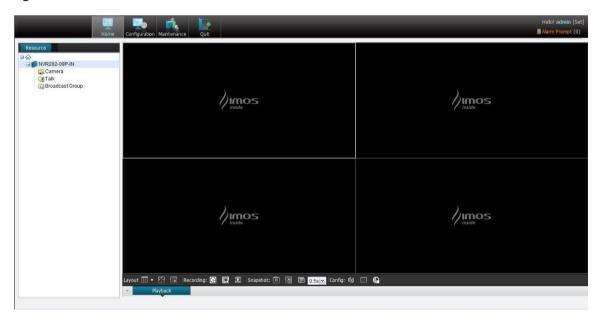
Purpose

Log in to the Web interface to remotely control your NVR.

Steps

- 1. Open the IE on your PC, type the IP address of your NVR in the address bar, and then press **Enter**. The login page is displayed.
- **2.** Enter your username and password. If this is the first time you log in to the Web interface for your NVR, use "admin" as the username and password.
- **3.** Click **Login**. The live view window (also called the homepage) of the Web interface is displayed.

Figure 1-1 Live View Window



Installing the ActiveX

Purpose

For your first login to the Web interface, you need to install ActiveX.

Steps

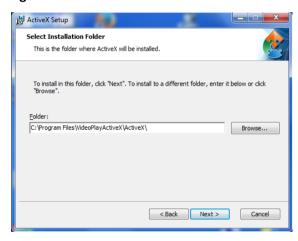
1. Click **Next** in the dialog box.

Figure 1-2 ActiveX Setup Wizard Page



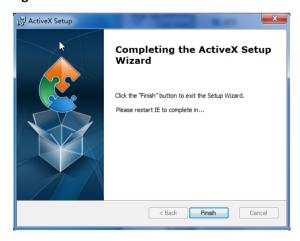
2. Click Browse to select a folder for ActiveX. And click Next.

Figure 1-3 Select Installation Folder



3. Install ActiveX according to the guidance, and click **Finish** to complete the installation.

Figure 1-4 Installation Finished



Adding and Connecting a Camera to Your NVR

Purpose

Add a camera to your NVR and view live video from the camera. The parameters that can be configured vary with the camera model.

Prerequisite

- The network connection between the camera and your NVR is functional.
- Initial configuration has completed for your camera. For detailed information about initial configuration for a camera, see the manual delivered with the camera.

Steps

1. Click Configuration > Resource Configuration > IPC. The IPC page is displayed. You can add the camera directly or using the search function on the IPC page.

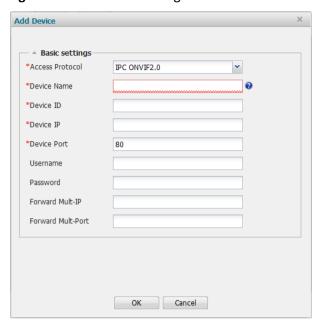
Figure 1-5 IPC Page



Adding a Camera Directly

1. Click Add. The Add Device dialog box is displayed. The Add Device Dialog Box may vary with the protocol you select.

Figure 1-6 Add Device Dialog Box for ONVIF



2. Select the protocol, enter a name, ID, and IP for your camera. Some of the parameters are described in the table below.

 Table 1-1
 Parameter Descriptions for Adding a Camera

Parameter	Description	
Access Protocol	Protocol for connecting the camera to your NVR. • Uniview • IPC ONVIF1.0 • IPC ONVIF2.0 Note: The parameters and processes of adding device may vary with the protocol you select.	
Device Name	Camera name.	
Device ID	ID of the Camera.	
Device IP	IP address of the camera.	
Device Port	Port number of the camera. Use the default port number unless otherwise required.	
Username	Username and password for accessing the camera.	

Parameter	Description
Password	 Note: For ONVIF protocol, you must enter the username and password correctly. For Uniview protocol, the NVR will add cameras using "admin" as the username and password by default, if the user information is not "admin", you can enter the correct information and add the camera, you may also use the default login information so that the NVR will automatically change the login information into "admin".
Forward Mult-IP	IP address and port number of the multicast group for forwarding audio/video streams.
Forward Mult-Port	The combination of the IP address and port number of the multicast group must be unique in the system.

3. After you have completed the settings, click **OK**.

Searching and Adding a Camera

1. Click the **Search** button. The **Search** page is displayed.

Figure 1-7 Search Page



2. Make a quick search or search a specified network segment:

To make a quick search, click the Quick Search button.

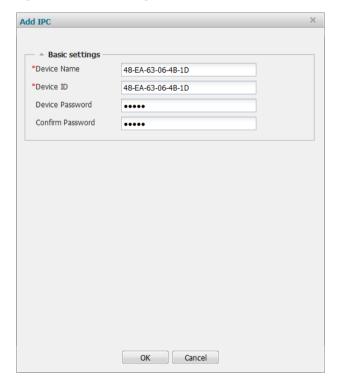
To search a network segment, click the **Search in Network Segment** button and then set the start and end addresses of the network segment.

3. After the camera is found, click in the Add Device column. For a third-party IPC, the Add Third-Party IPC page is displayed. For a Uniview camera, a pop-up menu appears after you click, where you can choose the protocol. If you choose the Uniview protocol, the Add IPC page is displayed. The following shows some examples.

Figure 1-8 Add Third-Party IPC Page



Figure 1-9 Add IPC Page



- **4.** Set the parameters. For ONVIF protocol, make sure that you enter the correct username and password in the **Add third-Party IPC Page**.
- **5.** After you have completed the settings, click **OK**.



NOTE!

You can add multiple cameras at a time by clicking the **Batch Add** button. When you use this function, the cameras are added with the default settings.

Editing Your Camera Settings

Purpose

Edit basic settings after a camera is added.

Steps

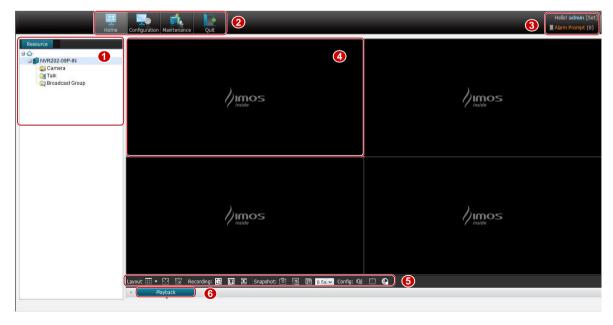
- **1.** Double-click the name of the added camera on the **IPC** page to configure the camera. And you can also right-click the camera and then choose **Config** in the resource tree.
- 2. Edit the settings as required. Some of the parameters are described in the table below.
- 3. After you have completed the settings, click OK.

2 Live View

Introduction of the Live View Window

The live view window is displayed when you log in to the Web interface. The live view window consists of several functional areas.

Figure 2-1 Live View Window



The functions of these areas are described in the table below.

 Table 2-1
 Functional Areas in the Live View Window

No.	Function
1	Resource tree. The icons are described in Table 2-2.
2	Main toolbar, which is used to access the main menus in the Web interface.
3	Information area, which shows your username and the number of new messages from the system.
4	Pane used to display live video or recording.
5	Window toolbar. The icons are described in Table 2-3.
6	Playback toolbar, which is used to playback recordings.

Toolbar and Icons

Table 2-2 Explanation of Icons on the Resource Tree

lcon	Indication
₩ ₩	Status of connected fixed cameras. The icons from left to right mean "online", "offline", "video lost".
7 6 7	Status of connected PTZ cameras. The icons from left to right mean "online", "offline", "video lost".
ij	Root node of the resource tree.
	Folder.
	Alarm input.
4	Alarm output.

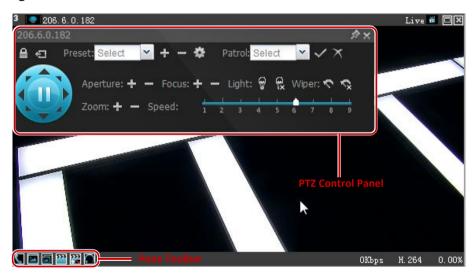
 Table 2-3 Explanation of Icons on the Window Toolbar

Icon			Function
Window Toolbar	Layout ⊞ ▼ 🖸 🖫	Change layout	Click the arrow to change the layout of panes.
		Full screen	Click this icon to switch to full screen mode.
		Close all panes	Click this icon to close display on all panes.
	Recording Recording:	Start recording all panes to the server	Click this icon to start recording to the NVR for all the panes. To stop recording, click the icon again.
		Start local recording on all panes	Click this icon to start recording to your PC for all the panes. To stop recording, click the icon again.
		Play local recording	Click this icon to play a recording saved on your PC.

Icon			Function
		Single snapshot	Click this icon to take a snapshot of the current image on the pane.
Snapshot: (1) (8) (10)		Start single snapshot on all panes	Click this icon to take snapshots of images on all panes.
	Shapshoc O 8 (a) (b.55 V	Start continuous snapshot on all panes	Click this icon to take snapshots of images on all panes at a certain interval. You can select an interval from the drop-down list.
		Adjust volume	Click this icon to adjust the volume.
	Config Config: (1) G	Resume scene	Click this icon to restore the previous scene mode, including the layout of panes, live video, and group switching.
		Turn off contrast on all panes	Click this icon to disable dynamic contrast enhancement for all panes.

When you click a pane, the pane toolbar appears and if PTZ function is supported, the PTZ control panel appears as well.

Figure 2-2 PTZ Control Panel and Pane Toolbar



The icons on the pane toolbar are described in the following table.

Table 2-4 Explanation of Icons on the Pane Toolbar

Icon	Function
	Talk : Click this icon to start audio communication with the corresponding IPC.
	Snatch One: Click this icon to take a snapshot of the image on the pane.

Icon	Function
a	Snatch Series Start : Click this icon to take snapshots of images at a certain interval.
533	Local Storage Start: Click this icon to start recording to your PC.
33	Center Storage Start: Click this icon to start recording to your NVR.
	Restore LostFrameRate: Click this icon to restore the lost frame rate.
	Video Settings : Click this icon to adjust image settings, including the contrast, saturation, hue and brightness.

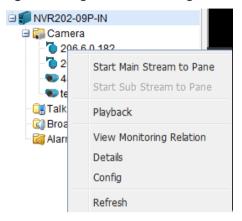
 Table 2-5 Explanation of Icons on the PTZ Control Panel

Icon	Function
a or	Locks or releases the PTZ.
	Note: Only admin can gain the control of a locked PTZ.
€T	Releases the PTZ.
	Any user can control a PTZ when it is not locked.
Preset: Select 🕶	Select a preset (position) for the PTZ.
+ -	Adds or deletes a preset.
•	Sets a home position for the PTZ.
Patrol: Select 🔻	Select a patrol route. You can select Add from the drop-down list to add a new patrol route.
✓ X	Starts or stops patrol.
Aperture: + -	Increases or decreases the aperture of the lens.
Focus: + -	Adjusts the focus of the camera.
Light: ₩ €	Turns on or off the light.
Wiper: 🔨 🦠	Turns on or off the wiper.
Zoom: + -	Zoom in or out.
Speed: 1 2 3	Controls the speed when the PTZ moves.
	Controls the direction of the PTZ.

Right-click Menu for camera

Right click the camera icon, the pop-up menu is displayed.

Figure 2-3 Right-click Menu Page



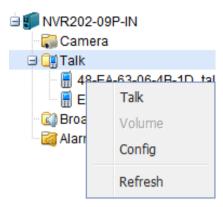
Some of items in the menu are described below.

Item	Function
Start Main Stream to Pane	Display the live view with the main stream.
Start Sub Stream to Pane	Display the live view with the sub stream (this item turns gray if the IPC does not support sub stream).
Playback	Play back a recording.
View Monitiring Relation	List the statistic information of IPC connected to NVR for your reference.
Details	Check the detailed information of the IPC.
Config	Shortcut for editing your IPC setting.

Right-click Menu for Talk

Right click the Talk icon , the pop-up menu is displayed.

Figure 2-4 Right-click Menu Page



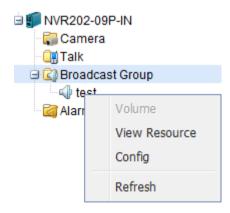
Some of items in the menu are described below.

Item	Function
Talk	Enable the talk function for the voice resources.
Volume	Turn up/down the volume of voice resources (turns gray when the talk function is disabled).
	Note: the volumn control is global for all voice resources, which means when you adjust the volumn of one voice resouce, the volumn of other resources changes accordingly.
Config	Edit the voice resources setting for talk and broadcast.

Right-click Menu for Broadcast Group

Right click the broadcast icon $\stackrel{\blacktriangleleft}{-}$, the pop-up menu is displayed.

Figure 2-5 Right-click Menu Page



Some of items in the menu are described below.

Item	Function
Volume	Turn up/down the volume of broadcast group (turns gray when the talk function is disabled).
View Resources	Show the status of the voice resources added in this group.
Config	Add voice resources for this group.

3 Playback

Playback means playing a recorded video (referred to as a recording) that has been saved to your NVR or PC. The NVR provides multiple ways to play back a recording. You can specify the camera, time period, and labels when playing back a recording.

Playback by Camera

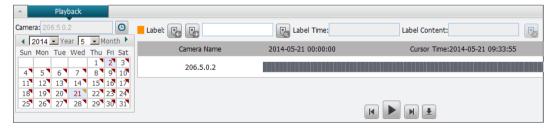
Purpose

Use this function to play a video recorded for a specified camera in the live view window.

Steps

- 1. In the live view window, click the **Resource** tree to expand it till you find the desired camera, and then right-click it. The right-click menu is displayed as shown in Figure 2-3.
- **2.** Choose **Playback** from the pop-up menu. The **Playback** toolbar is expanded at the bottom of the page. The following shows an example.

Figure 3-1 Playback Toolbar



3. Select the year and month on the calendar. Each date has a flag indicating if there is recording for this date. Different colors have different meanings:

Red: No recording

Yellow: Recording is incomplete

Blue: Recording is complete (24 hour long)

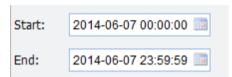
4. Click the date that has recording, for example, choose 22 to select the recordings on that day. A blue progress bar appears on the right side. The following shows an example.

Figure 3-2 Playback Progress Bar



- 5. Click to start playing the recording. You can use the mouse to control the progress, or click or to play the previous or next recording.
- 6. (Optional) To set a time period for the query, click (Advanced icon) in the playback toolbar (see Figure 3-1). In the **Start** and **End** fields, set the exact time period as required (the following shows an example) and then click **Query**.

Figure 3-3 Setting an Exact Time Period for Playback



Playback by Label

Purpose

Use this function to play a recording by label. A label is used to mark certain content in a recording in order to quickly pinpoint the content in future playback.

Prerequisite

Before you use this function, ensure that at least one label has been added for the recording you want to play back. To add labels, you can click in the **Playback Control Panel** when a recording is being played back.

Steps

Perform steps 1 through 4 in Playback means playing a recorded video (referred to as a recording) that has been saved to your NVR or PC. The NVR provides multiple ways to play back a recording. You can specify the camera, time period, and labels when playing back a recording.

- 1. Playback by Camera.
- After you have set the date and time on the Playback toolbar, select Query Labels under the End field.
- **3.** Click the **Query** button. If a recording is found, a blue progress bar is displayed on the right side.
- 4. Click (Previous icon) or (Next icon) to play the recording by label. The Cursor Time indicates the current recording time that is being played.

- 5. (Optional) If you know the label name, enter it in the field right to and then click (Find Label icon). The label name appears in the Label Content field.
- 6. (Optional) To delete a label, click .

Playback by Local File

Purpose

Recordings are saved as files on your PC. You can use this function to play back a recording file stored on your PC.

Prerequisite

Before you use this function, make sure that you know the name of the file corresponding to the recording you want to play back.

Steps

- 1. In the live view window, click (Play local recording icon) on the Window toolbar. A dialog box appears, prompting you to select the file.
- 2. Select the file and then click Open.

4 Camera Settings

Camera settings, including basic settings, settings for video and audio, image, On Screen Display (OSD), motion detection, privacy mask, and Region Of Interest (ROI), are displayed on the **Device Configuration** page. The parameters that you need to set vary with the camera model and the protocol you select.

Configuring Basic Information

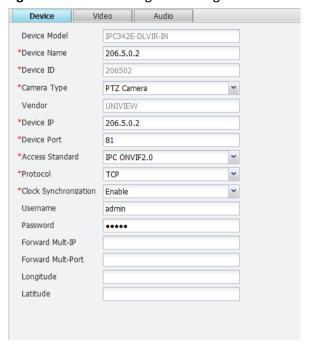
Purpose

Configure the basic information of a camera.

Steps

- 1. Click Configuration > Resource Configuration > IPC.
- 2. In the camera list, double-click the name of the camera you want to configure, or select the check box for the camera and then click in the Config column. The Device Configuration pages for ONVIF and Uniview protocol are displayed.

Figure 4-1 Device Configuration Tag for ONVIF

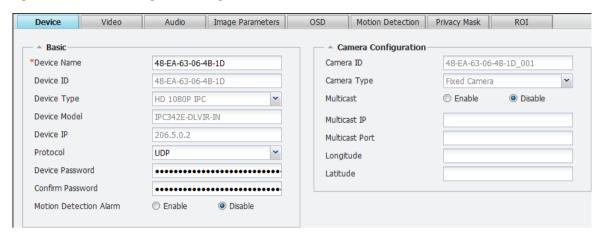


Some of the parameters are described below.

Table 4-1 Parameter Descriptions for Editing Camera Settings

Parameter	Description
	Protocol used for transmitting live video streams to your NVR.
Protocol	The default is UDP (User Datagram Protocol), but you may use TCP as required, for example, when network performance is degraded.
Clock Synchronization	Enables/disables clock synchronization with your NVR.
	Enables/disables multicast.
Multicast	Make sure that the camera supports this function before you enable it on the NVR.
Widitedat	If you enable multicast, you need to set an IP address and a port number for the multicast group and make sure the combination of which are unique in the system.
Multicast IP	IP address and port number of the multicast group.
Multicast Port	
Longitude	Defines the exact position of the camera.
Latitude	

Figure 4-2 Device Configuration Tag for Uniview



- 3. Modify the settings on the **Device** tab as required.
- **4.** After you have completed the configuration, click **OK**.

Configuring Video and Audio Settings

Purpose

Edit audio and video settings for your camera on the Video and Audio tab pages as required.

Prerequisite

For an IPC that does not support this function, the **Video** and **Audio** tabs are masked. Depending on the model and type of your camera, different parameters may appear on these tab pages. This function is supported by cameras connected with Uniview protocol.

Steps

- 1. Click Configuration > Resource Configuration > IPC.
- 2. Click the Video or Audio tab.

Figure 4-3 Video Tab

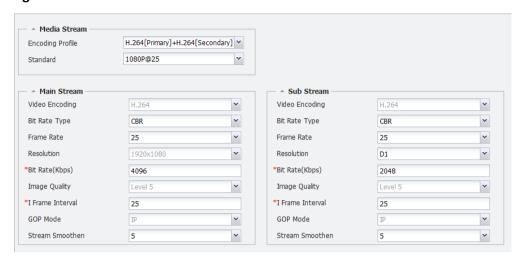
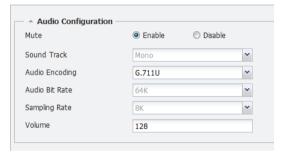


Figure 4-4 Audio Tab



3. Edit the settings as required. Some of the parameters are described in the following table.

Table 4-2 Video and Audio Parameters

Parameter	Description
Encoding Profile	 H.264[Primary]: Select this option if you need one video stream from your camera. H.264[Primary]+H.264[Secondary]: Select this option if you need two video streams from your camera: one primary and one secondary.
Bit Rate Type	 CBR: Constant Bit Rate, which means the camera transmits data at a constant bit rate. This mode is recommended when the bandwidth available is limited. VBR: Variable Bit Rate, which means that the camera transmits data at a variable bit rate as required by image quality.
Stream Smoothen	In the case of degraded network performance, enabling this function achieves smoother images but it also causes a certain level of delay.

4. After you have completed the settings, click **OK**.

Editing Image Settings

Purpose

You may edit image settings for your camera as required on the **Image Parameters** tab page. The **Live Preview** area on the left part of the page displays live video from the camera. The **Image Parameters** area on the right shows the parameters that you can set to adjust the images. This function is supported by cameras connected with Uniview protocol.

Steps

- 1. Click Configuration > Resource Configuration > IPC.
- 2. Double-click the name of the camera you want to configure and then click the Image Parameters tab. The Image Parameters area shows the current settings. The following shows an example.

Figure 4-5 Image Parameters



- 3. Modify the settings while watching the live video in the Live View area on the left.
- **4.** After you have completed the settings, click **OK**.

Configuring OSD

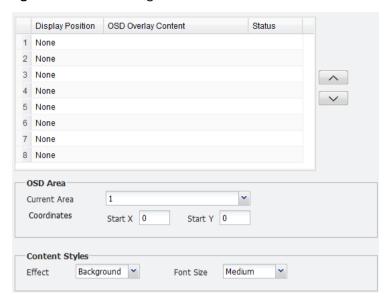
Purpose

Use this function to add certain contents on live video in a pane such as time, serial information, camera name, monitored location or other custom contents. The maximum number of OSDs your NVR supports depends on the model. This function is supported by cameras connected with Uniview protocol.

Steps

- 1. Click Configuration > Resource Configuration > IPC.
- **2.** Double-click the name of the camera you want to configure and then click the **OSD** tab. The **OSD** tab page is displayed. The following shows an example.

Figure 4-6 OSD Tab Page



- 3. In the **Display Position** column, click **None** and then select **Area 1** from the drop-down list.
- **4.** In the **OSD Overlay Content** column, click the field right to **Area 1** and then select the desired option. If you select **Custom**, you need to enter the custom content.
- **5.** In **OSD Area**, select **1** from the drop-down list, and then enter coordinates in the boxes to set the position for OSD area 1.
- **6.** In the **Content Styles** area, set the desired font style and size.
- **7.** To add more OSDs, repeat steps 3 through 6.
- **8.** After you have completed the settings, click **OK**.

Configuring Motion Detection

Purpose

Use this function to set an area on video from a camera so that an alarm is generated when an object in this area moves beyond a certain extent. You need to enable motion detection first before you can edit the settings on the **Motion Detection** tab. This function is supported by cameras connected with Uniview protocol.

Steps

- 1. Click Configuration > Resource Configuration > IPC.
- **2.** Double-click the name of the camera you want to configure and then click the **Motion Detection** tab. The following shows the **Motion Detection** area.

Figure 4-7 Setting Motion Detection



- 3. Configure the Available Areas parameter to set the number of OSDs.
- 4. Select the area you want to set from the Current Area drop-down list. For example, Area 1.
- 5. Configure the **Coordinates** parameter to set the coordinates of the detection area. You may also use your mouse to select the detection area in the **Live Preview** area on the left and then drag the detection area to the right position.
- **6.** Configure the **Sensitivity** parameter to set the detection sensitivity by entering a number in the text box or moving the icon using your mouse. The greater the number, the higher the sensitivity.
- **7.** Configure the **Object Size** parameter to set the size of the object by entering a number in the text box or resizing the object in the **Live Preview** area using your mouse.
- **8.** Configure the **Duration** parameter to set the maximum duration of movement before an alarm is raised. For example, if you set this parameter to 10, an alarm will be raised when an object in the specified area moves for 10 seconds.
- **9.** Repeat steps 4 through 8 to set all the motion detection areas.
- 10. After you have completed all the settings, click OK.

Configuring Privacy Mask

Purpose

Use this function to set a mask area on images from a camera to protect the privacy, for example, the license plate number of a car. This function is supported by cameras connected with Uniview protocol.

Step

- 1. Click Configuration > Resource Configuration > IPC.
- **2.** Double-click the name of the camera you want to configure and then click the **Privacy Mask** tab. The following shows the **Privacy Mask** area.

Figure 4-8 Setting Privacy Mask



- 3. For the Available Areas parameter, select the areas you want to configure. For example, Area 1, Area 2, and Area 3. The selected area numbers are listed in the Current Area drop-down list.
- **4.** From the **Current Area** drop-down list, select an area number.
- **5.** Set the coordinates for the currently selected area.
- **6.** Repeat steps 4 and 5 till you have set coordinates for all the selected areas. You may also select an area from the **Current Area** drop-down list, use your mouse to select the mask area in the **Live Preview** area on the left and then drag the mask area to the right position.
- 7. After you have completed the settings, click **OK**.

Configuring ROI

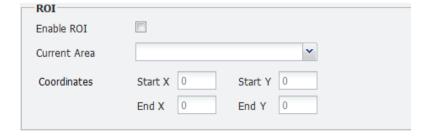
Purpose

Use this function to set a region of interest (ROI) and ensure high image quality for this region on the screen. Based on the ROI function, the camera can decrease image quality for non-ROI areas to save bandwidth and storage while providing greater details and better image quality under the same bit rate streaming conditions. This function is supported by cameras connected with Uniview protocol.

Steps

- 1. Click Configuration > Resource Configuration > IPC.
- **2.** Double-click the name of the camera you want to configure and then click the **ROI** tab. The following shows the ROI area.

Figure 4-9 Setting the ROI



- 3. Select the check box to enable the ROI function.
- **4.** From the **Current Area** drop-down list, select the area number.
- **5.** Enter the coordinates to set the ROI. You may also draw the ROI in the **Live Preview** area on the left and drag the ROI to the right position.
- **6.** After you have completed the settings, click **OK**.

PTZ Settings

Set PTZ patrol parameters so that your PTZ camera can patrol along a specified route in accordance with a plan. Before you start, check that the PTZ is properly connected to your NVR on the network.

Adding Preset Positions

Purpose

You need to add preset positions (also called presets) before you can add a patrol route.

Steps

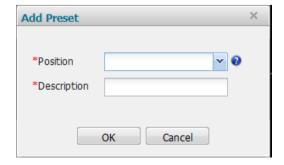
1. In the live view window, click the pane corresponding to the PTZ camera you want to configure. The PTZ control panel appears.

Figure 4-10 PTZ Control Panel



- **2.** Adjust the direction, zoom, focus, and aperture for the PTZ camera. For detailed descriptions about how to use the PTZ control panel, see Table 2-5.
- 3. After you have completed step 2, click right to the **Preset** drop-down list. The **Add Preset** dialog box is displayed.

Figure 4-11 Add Preset Dialog Box



- **4.** Complete the settings in the dialog box. For example, set both the **Position** and **Description** parameters to **001**.
- **5.** Click **OK**. The preset position is added to the **Preset** drop-down list on the PTZ control panel.
- 6. To add another preset position, adjust the direction, zoom, focus, and aperture of the PTZ camera as required, click right to the Preset drop-down list, and then complete settings in the Add Preset dialog box.
- **7.** Repeat steps 4 through 6 till you have added all the preset positions. The added preset positions are listed in the **Preset** drop-down list on the PTZ control panel.
- **8.** (Optional) To delete an unneeded preset position, select the preset position from the **Preset** drop-down list, and then click .

Creating a Patrol Route

Purpose

A patrol route consists of a certain number of preset positions. Create a patrol route and set the PTZ camera to move among the preset positions in specified order at the specified interval.

Prerequisite

Before you add a patrol route, you need to add preset positions first. For details about how to add a preset position, see Adding Preset Positions.

Steps

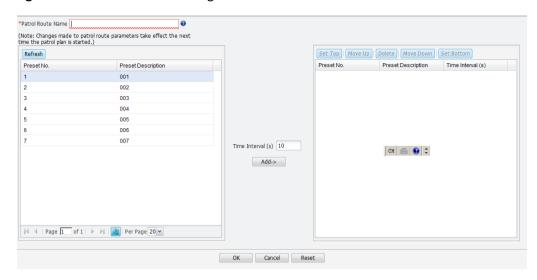
1. In the live view window, click the pane corresponding to the PTZ camera that you want to configure. The PTZ control panel appears.

Figure 4-12 PTZ Control Panel



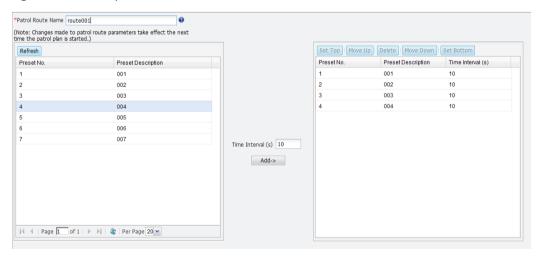
2. From the Patrol drop-down list, select Add. The Add Patrol Route page is displayed.

Figure 4-13 Add Patrol Route Page



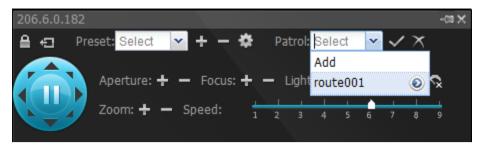
- 3. In the Patrol Route Name text box, enter a name for the patrol route, for example, route1.
- **4.** From the **Preset** list, select the preset positions you want to add to the route, for example, preset positions 1, 2, 3, 4, and then click the **Add** button. To adjust the sequence of the preset positions, use the **Set Top**, **Move Up**, **Move Down**, **Set Bottom** buttons.
- **5.** In the **Time Interval** text box, enter a number to set the duration that the PTZ camera stays at each preset position, for example, 10 seconds. The following shows the example settings.

Figure 4-14 Example Preset Positions and Time Interval for a Patrol Route



6. Click the **OK** button. The patrol route (route001) is added to the **Patrol** drop-down list on the PTZ control panel.

Figure 4-15 New Patrol Route



Setting a Patrol Plan

Purpose

Set a patrol plan for your PTZ camera so that the PTZ camera patrols in accordance with the specified time period(s).

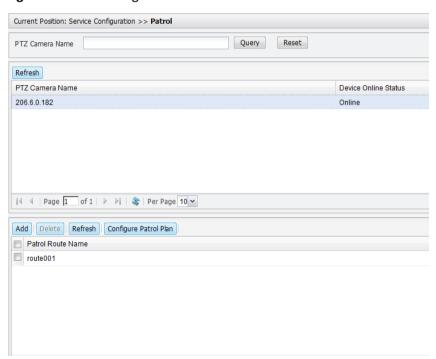
Prerequisite

The patrol route for which you want to set a patrol plan must have been created. For detailed steps to create a patrol route, see Creating a Patrol Route.

Steps

1. Click Configuration > Service Configuration > Patrol. The Patrol page is displayed.

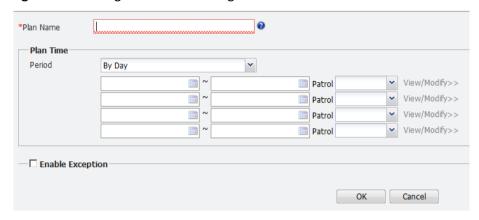
Figure 4-16 Patrol Page



2. Select the camera for which you want to create a patrol plan, for example, 206.6.0.182. The patrol route created for this camera appears in the patrol route list. For example, route001.

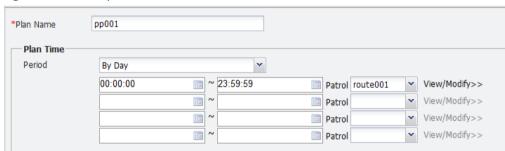
3. Select the patrol route and then click the **Configure Patrol Plan** button. The **Configure Patrol Plan** page is displayed.

Figure 4-17 Configure Patrol Plan Page



- **4.** Set the plan name and the time period(s) during which the plan will be executed. The following shows an example, in which the plan name is pp001, and the PTZ camera patrols 24 hours every day.
- 5. (Optional) To view or modify the current patrol route, click View/Modify.

Figure 4-18 Example Patrol Plan



- **6.** (Optional) To set an exception to the current plan, select **Enable Exception** and then set the exceptional period(s) or patrol route(s).
- 7. After you have completed the settings, click **OK**.

Starting a Patrol Plan Manually

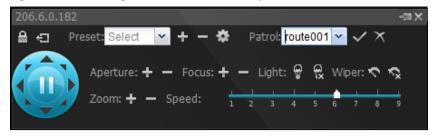
Purpose

Use this function to start a patrol plan immediately.

Steps

- 1. In the live view window, click the pane corresponding to the PTZ camera for which you want to start the patrol plan. The PTZ control panel is displayed.
- **2.** From the **Patrol** drop-down list, select the desired patrol plan, for example, route001. The following shows an example.

Figure 4-19 Starting a Patrol Plan Manually



3. Click (Start Patrol icon) to start the selected patrol plan.

5 Storage

Storage must be configured before your NVR can save recordings for the connected cameras. You need to build an array first and then make a storage plan.

Building an Array

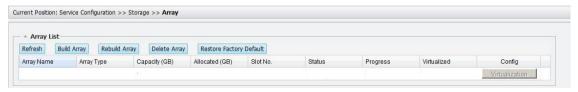
Purpose

Build an array of disks to store recordings on your NVR.

Steps

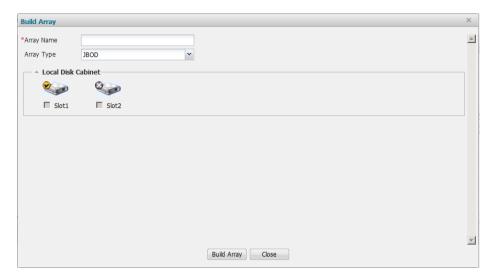
1. Click Configuration > Service Configuration > Storage > Array. The Array page is displayed.

Figure 5-1 Array Page



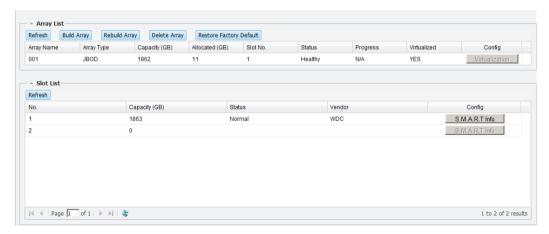
2. Click the Build Array button. The Build Array dialog box is displayed.

Figure 5-2 Build array dialog box



- **3.** Enter the array name, select an array type from the drop-down list, and then select slots for the array.
- **4.** After you have completed all the settings, click the **Build Array** button. The new array is displayed in the array list. The following shows an example.

Figure 5-3 Newly Built Array



- **5.** Click the **Virtualization** button to virtualize the array.
- **6.** To view the hard disk health status, click the **S.M.A.R.T Info** button.



NOTE!

- The system supports active standby for hard disks, and it is recommended that you reserve at least
 one hard disk for backup. When a hard disk in the RAID fails, the system automatically replaces the
 faulty disk with the backup disk.
- The level of security offered from low to high is JBOD, RAID1 and RAID5. JBOD requires at least one
 disk. RAID1 needs two disks of the same capacity, one active and one standby. RAID5 needs at least
 three disks of the same capacity.
- Only RAID1 and RAID5 can be rebuilt.
- Ensure that the backup disk has the same capacity as the active disk.
- When a hard disk of a RAID1 or RAID5 array is damaged, **Degrade** is displayed in the **Status** column.
 In this case, you need to rebuild the array and replace the faulty disk.

Making a Storage Plan

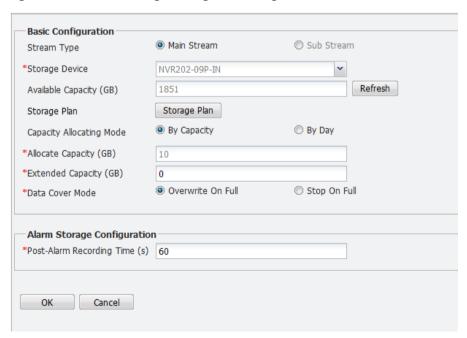
Purpose

A storage plan sets the start time and end time to record video for a camera.

Steps

- 1. Click Configuration > Service Configuration > Storage > Storage Plan.
- 2. In the **Operation** column, click the **Modify** icon for your IP camera. The **Camera Storage Configuration** page is displayed.

Figure 5-4 Camera Storage Configuration Page



3. Set the parameters, including the parameters that you see after clicking the **Storage Plan** button. Some of the parameters are described in the following table.

Parameter	Description	
Storage Device	Device used to store videos of the camera.	
Plan Name	Name of the storage plan.	
Period	 Including two options: By Day: If you select this option, you need to specify at least one period, for example, from 00:00:00 to 23:59:59. By Week: If you select this option, you need to specify at least one period for the day(s) in a week, for example, from 00:00:00 to 23:59:59 on Monday. 	
Enable Exception	Indicates whether to enable exceptions to the current storage plan. If you enable this function, you need to set the exceptional date(s) and period(s). On the exceptional date, the storage plan is effective during only the specified period.	
Allocate Capacity	Disk size to be used for storage.	
Extended Capacity	Extended disk size to be used for storage.	
Data Cover Mode	 Indicates the policy to be used when the assigned space is used up. Overwrite On Full: With this option selected, data will be overwritten by new data when the storage size assigned for the camera is full. Stop On Full: With this option selected, the device will stop writing data to the disk when the assigned space is full. 	
Post-Alarm Recording Time	Indicates the length of time that the NVR continues recording after an alarm is raised.	

4. After you have completed all the settings, click **OK**.

6 Recording

Recording is to save live video to a hard disk so that the video can be stored, retrieved and replayed.

The NVR supports three types of recording: manual recording, planned recording, and alarm-triggered recording.

Manual Recording

Manual recording means that recording is performed manually instead of being started by a plan or being triggered by an alarm.

- To record video to your PC, click the pane displaying the live video you want to record in the live view window, and then click (Local Record Start icon). To stop recording, click (Local Record Stop icon).
- To record video to your NVR, click the pane displaying the video you want to record in the live view window, and then click (Center Storage Start icon). To stop recording, click the icon again.

Planned Recording

Purpose

Planned recording means that recording is performed automatically according to a storage plan, which means a storage plan must be created first. For the steps to create a storage plan, see Making a Storage Plan.

A storage plan is immediately effective once created. If a storage plan is stopped, you can follow these steps to start it.

Steps

1. Click Configuration > Service Configuration > Storage > Storage Plan. The Storage Plan page is displayed.

Figure 6-1 Storage Plan Page



Table 6-1 Descriptions for Columns on the Storage Plan Page

Parameter	Description
Storage Device	Current storage device for the camera.
Resource Status	Status of the storage device.
Store as Planned	Indicates whether video from a camera is stored according to a plan.
Planned	Indicates whether storage has been planned.
Status	Indicates whether the storage plan is started or stopped.

- **2.** Select the camera and then click the **Started** button. A message appears to show the operation result.
- **3.** Click **OK**. You will find that the status has changed from **Stopped** to **Started** in the **Status** column.
- **4.** To stop a storage plan, select the camera and then click the **Stopped** button.

Alarm-Triggered Recording

When the alarm-triggered recording function is set for a camera, the NVR will be triggered to record live video from the camera when an alarm is raised for the camera.

Configuring alarm-triggered recording is the same as configuring alarm-triggered storage. For steps to configure alarm-triggered storage, see Configuring Alarm-Triggered Storage.

7 Alarm Settings

Purpose

Alarm triggering is an important function in the system. You can set conditions for triggering a certain type of alarm as required.

Steps

Click Configuration > Service Configuration > Alarm. The Alarm Triggering page is displayed.

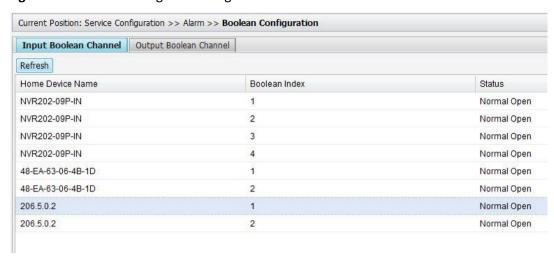
Figure 7-1 Alarm Triggering Page



Configuring Boolean

1. Click Configuration > Service Configuration > Alarm > Boolean Configuration. The Boolean Configuration page is displayed.

Figure 7-2 Boolean Configuration Page



- 2. To set an alarm input, click the **Input Boolean Channel** tab. To set an alarm output, click the **Output Boolean Channel** tab.
- 3. In the Config column, click for the device you want to configure. The Boolean Configuration dialog box is displayed. Some of the parameters are described in the table below.

Table 7-1 Parameter descriptions for setting Boolean

Туре	Parameter	Description
Input	Boolean Name	Name of the alarm input device.
	Status	The status set for this parameter must be consistent with the status of the alarm input device. For example, if the alarm input device is normally in open status, you must set this parameter to Normal Open .
	Boolean	Indicates whether to enable alarm input.
Output	Boolean Name	Name of alarm output.
	Status	The status set for this parameter must be consistent with the connected alarm output device. For example, if the alarm output device is normally in open status, you must set this parameter to Normal Open .
	Alarm Output	Indicates whether to enable alarm output.
	Duration	Length of time that an output alarm lasts. This parameter is effective only when Alarm Output is set to Enable .

4. After you have completed the settings, click **OK**.

Configuring Alarm-Triggered Actions



NOTE!

Device alarm and video loss alarm are independent from guard plans and are always effective. Device alarm includes temperature alarm and fan alarm. For alarm types other than temperature alarm and fan alarm, a guard plan is required for these types of alarms to trigger actions.

Before you configure an alarm-triggered action for an alarm, check that you have completed the required settings for this alarm. Different camera models may support different alarm types. Each alarm type supports one or more triggered actions.

You can set a maximum of 64 alarm-triggered actions, including 16 actions for each action type. The system allows you to configure several actions, including triggered storage, triggered preset, triggered live video to a specified pane, triggered Boolean output, and triggered buzzer. The detailed steps are described in the following sections.

Configuring Alarm-Triggered Storage

Purpose

The alarm-triggered storage function allows you to configure storage for cameras so that the NVR device starts to store video recording for these cameras when an alarm is raised. Before configuring alarm-triggered storage, you must configure storage for these cameras and set after-alarm recording time.

When alarm-triggered storage is enabled for a camera, recording storage will be triggered by an alarm so that video captured by this camera will be stored.

Before setting this function for a camera, you need to configure storage for the camera and set the duration of recording after the alarm is raised.

Steps

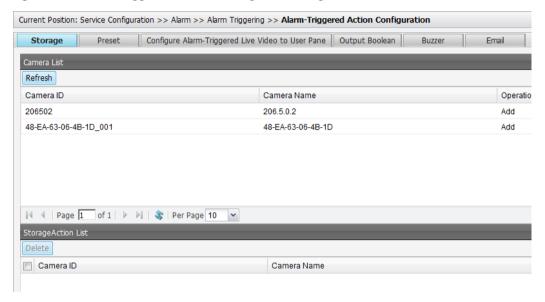
1. Click Configuration > Service Configuration > Alarm > Alarm Triggering. The Alarm Triggered page is displayed.

Figure 7-3 Alarm Triggered Page



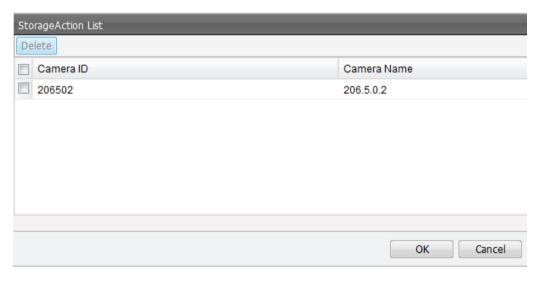
2. In the Configure Alarm-Triggered Action column, click the icon for the camera you want to configure alarm-triggered storage for and then choose an option from the pop-up menu. The Alarm-Triggered Action Configuration page is displayed.

Figure 7-4 Alarm-Triggered Action Configuration Page



3. In the **Operation** column of the **Camera List** area, click **Add** for the camera for which you want to configure alarm-triggered storage. The camera is added to the **StorageAction List** area.

Figure 7-5 Example—Camera Added to the Storage Action List



- 4. To enable alarm-triggered storage for more cameras, repeat step 3
- 5. After you have added all the desired cameras, click OK.



NOTE!

After alarm-triggered storage has occurred, you can view the alarm-triggered recording by clicking the sicon on the **History Alarm** page (under **Maintenance** > **Alarm Query** > **History**).

Configuring Alarm-Triggered Preset

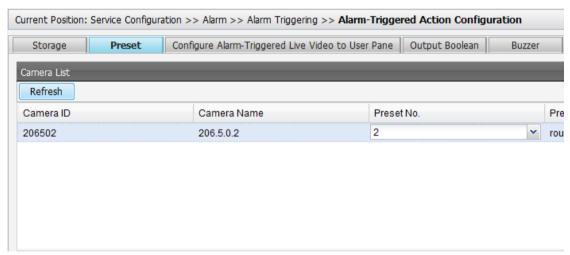
Purpose

This function is available for only PTZ cameras. When an alarm-triggered preset (position) is set for a PTZ camera, this camera will move to the preset position when an alarm is raised.

Steps

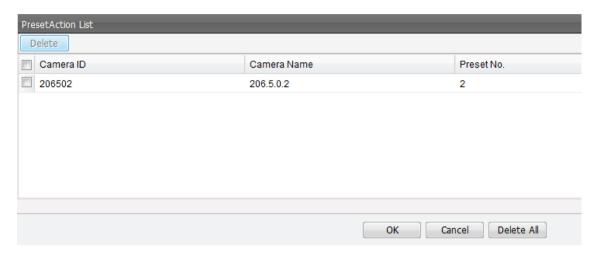
- 1. Click Configuration > Service Configuration > Alarm > Alarm Triggering. The Alarm-Triggered Action Configuration page is displayed.
- 2. Click the Preset tab.

Figure 7-6 Configuring Alarm-Triggered Preset



- **3.** In the **Preset No.** column, double-click the field for the camera and then select a number from the drop-down list, for example, preset No.2.
- **4.** Click the **Add** button in the **Operation** column. The triggered preset is added to the **PresetAction List** area.

Figure 7-7 Preset Action List



- **5.** To add more presets, repeat the above steps.
- **6.** After you have completed the settings, click **OK**.

Configuring Alarm-Triggered Live Video to a Pane

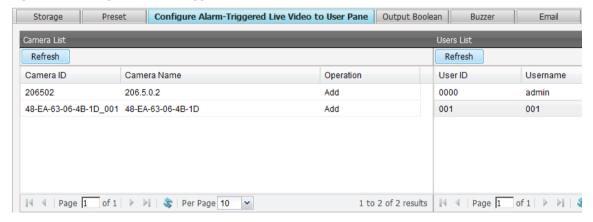
Purpose

When this function is set for a camera, live video from the camera will be displayed in the bound pane when an alarm is raised, and meanwhile, the border of the pane will turn red to alert you.

Steps

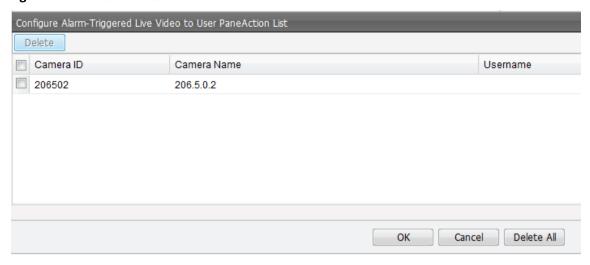
- 1. Click Configuration > Service Configuration > Alarm > Alarm Triggering. The Alarm-Triggered Action Configuration page is displayed.
- 2. Click the Configure Alarm-Triggered Live Video to User Pane tab.

Figure 7-8 Configure Alarm-Triggered Live Video to User Pane Tab



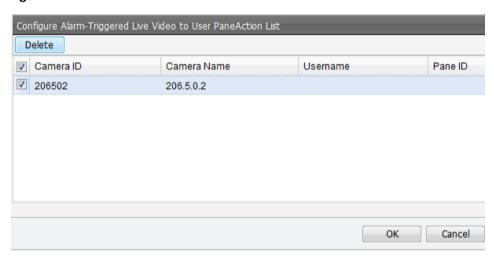
3. In the **Camera List** area, click **Add** in the **Operation** column for a camera, for example, 206.5.0.2. The camera is added to the action list as shown below.

Figure 7-9 Add Camera to Action List



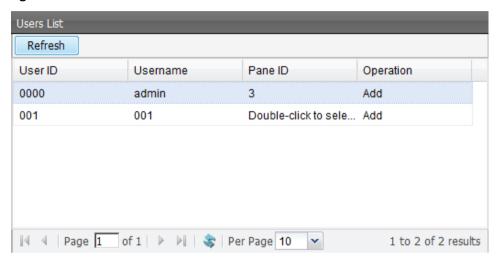
4. Select the check box for camera 206.5.0.2.

Figure 7-10 Select Camera



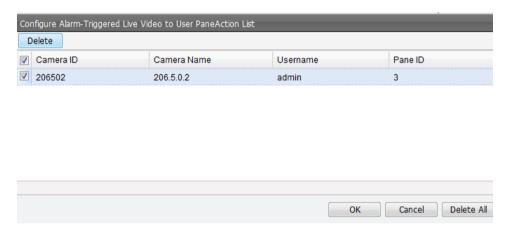
5. In the **Users List**, double-click the field in the **Pane ID** column, and then select a pane, for example, pane No.3, and then click **Add** in the operation column.

Figure 7-11 Bind Pane to Camera



The camera is bound to the pane, as shown in the figure below.

Figure 7-12 Camera is Bound to Pane



6. Click OK.

Configuring an Output Boolean

Purpose

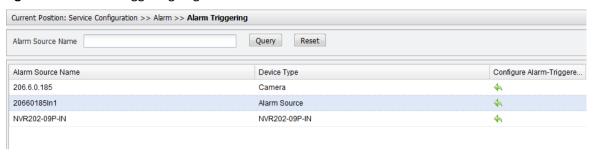
The purpose of setting an output Boolean is to enable the NVR to report alarms to some extended devices and trigger actions caused by an alarm.

This section takes alarm source 20660185In1 as an example and describes how to configure an output Boolean for alarm source 20660185In1.

Steps

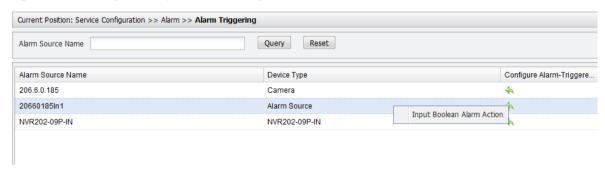
1. Click Configuration > Service Configuration > Alarm Triggering. The Alarm Triggering page is displayed.

Figure 7-13 Alarm Triggering Page



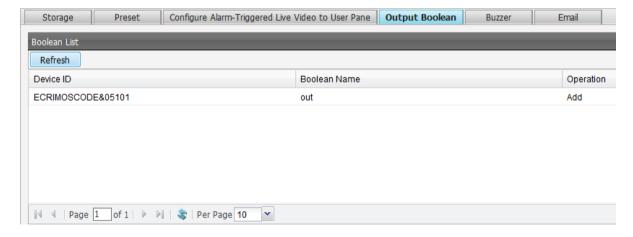
2. In the Configure Alarm Triggered column, click the icon for the alarm input source, for example, 20660185In1, and then click the pop-up Input Boolean Alarm Action.

Figure 7-14 Configure Output Boolean Page



3. On the Alarm-Triggered Action Configuration page, click the Output Boolean tab. In the Boolean List, find an available output Boolean as required. And then click Add in the Operation column.

Figure 7-15 Output Boolean Tab



4. Click OK.

Configuring Alarm-Triggered Buzzer

Purpose

After this function is set, the NVR device will trigger the buzzer to alert you when an alarm is raised.

Steps

- 1. Click Configuration > Service Configuration > Alarm > Alarm Triggering. The Alarm-Triggered Action Configuration page is displayed.
- 2. Click the Buzzer tab.

Figure 7-16 Buzzer Tab



3. Select YES to enable this function and then click OK.

Configuring Alarm-Triggered Email

Purpose

Use this function so that the NVR device will be triggered to send an email to a specified address when an alarm is raised.

Steps

- 1. Click Configuration > Service Configuration > Alarm > Alarm Triggering. The Alarm-Triggered Action Configuration page is displayed.
- 2. Click the Email tab.

Figure 7-17 Email Tab



3. Select **YES**, and then click **OK**.

8 Arming and Disarming

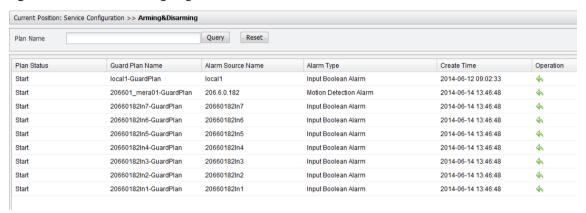
Purpose

Use the arming/disarming function to start/stop the guard plan for an alarm source.

Steps

1. Click Configuration > Service Configuration > Arming&Disarming. The Arming&Disarming page is displayed. On this page all available guard plans are listed.

Figure 8-1 Arm&Disarming Page



2. Click • in the Operation column for a guard plan, and then click start or stop as required.

9 Network Settings

Some network settings must be configured before your NVR can operate on the network, depending on the configuration of your NVR. For detailed descriptions, read the following sections.

Configuring TCP/IP

Purpose

TCP/IP settings are the basic network settings for your NVR, including the NIC, IP address, subnet mask and gateway.

Steps

- 1. Click Configuration > Network Configuration > TCP/IP. The TCP/IP page is displayed.
- **2.** Set the parameters. The following shows an example. Some of the parameters are described in Table 9-1.

Figure 9-1 Setting TCP/IP

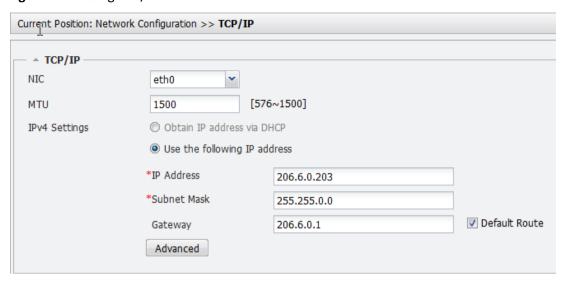


Table 9-1 TCP/IP Parameter Descriptions

Parameter	Description
NIC	Acronym for Network Interface Card. By default your NVR uses eth0 to communicate with the connected cameras.
MTU Acronym for Maximum Transmission Unit. Keep the default 150 modification is necessary.	
	Obtain IP address via DHCP: Select this option only when you have a DHCP server which automatically assigns an IP address for your NVR.
	Use the following IP address : Select this option if you want to set a static IP address, subnet mask, and gateway.
IPv4 Settings	IP Address: IP address of your NVR.
	Subnet Mask: Subnet mask of the network.
	Gateway : IP address of your gateway, typically the IP address of your router. To set the gateway as the default route, select Default Route .

3. After you have completed the settings, click **OK**.

Configuring PPPoE

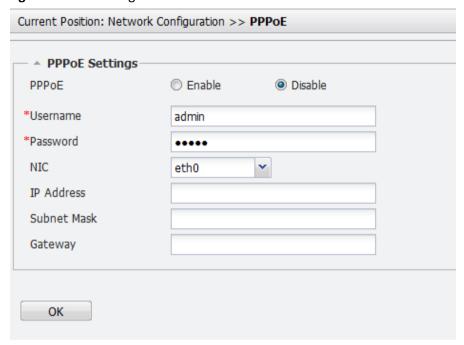
Purpose

This operation is necessary when your NVR supports access by Point-to-Point Protocol over Ethernet (PPPoE). You may skip this section if your NVR does not support PPPoE.

Steps

1. Click Configuration > Network Configuration > PPPoE. The PPPoE page is displayed.

Figure 9-2 PPPoE Page



- 2. Select Enable.
- **3.** Set the username and password for PPPoE access. The username and password are assigned by your ISP.
- **4.** After you have completed the settings, click **OK**.

Configuring NAT

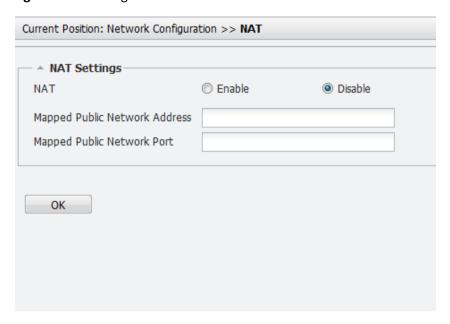
Purpose

NAT means Network Address Translation (NAT). When this function is enabled for your NVR, the private IP address and port number of your NVR will be translated into a public network address and port number, allowing your NVR to send information via the Internet.

Steps

1. Click Configuration > Network Configuration > NAT. The NAT page is displayed.

Figure 9-3 NAT Page



- 2. Click Enable.
- **3.** Enter the public network address and public port number to which the private IP address and port number of your NVR will be mapped.
- 4. Click **OK** to save the settings.

Configuring UNP Client

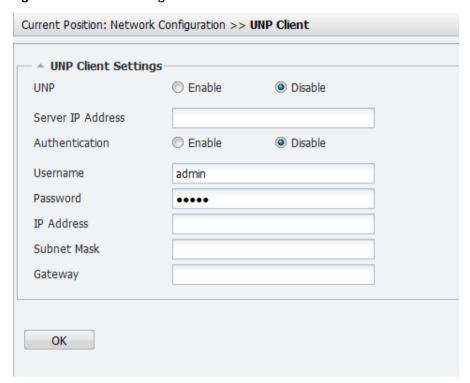
Purpose

Set the Universal Network Passport (UNP) client so that your NVR can communicate with the UNP server. Before configuring an IP address for the UNP client, ensure that your NVR can communicate with the UNP server.

Steps

1. Click Configuration > Network Configuration > UNP Client. The UNP Client page is displayed.

Figure 9-4 UNP Client Page



2. Set the parameters in the **UNP Client** page. Some of the parameters are described below.

Table 9-2 UNP Parameter Descriptions

Parameter	Description	
Authentication	Enables/disables the authentication function.	
Username	The Username and password of the UNP server.	
Password	Note: you can ignore the username and password if the authentication function is disabled.	

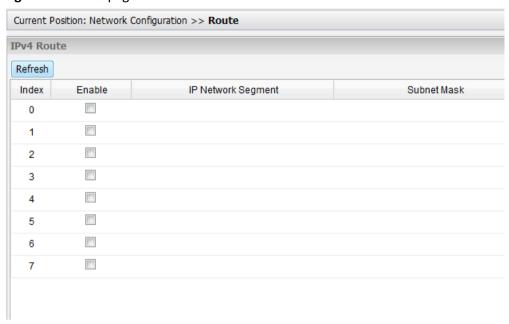
3. After you have completed the settings, click **OK**.

Configuring Route

This operation is required if you want to save more routes on your NVR. The added routes can be used to connect cameras that are located in different LANs as your NVR.

1. Click Configuration > Network Configuration > Route. The Route page is displayed.

Figure 9-5 Route page



- **2.** Select the check box in the **Enable** column, for example, for index 0, and then enter the network segment, subnet mask, and gateway in the respective fields.
- 3. Click the Save button in the Config column.

Configuring SMTP

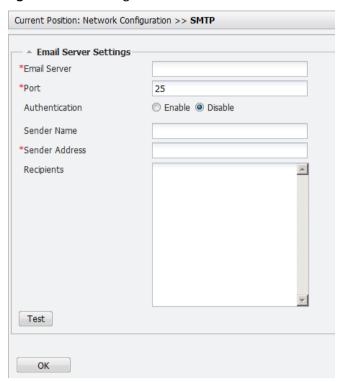
Purpose

The NVR can be set to send an alert email to specified users when an alarm is raised. Before you start configuring SMTP, ensure that your NVR is connected to the LAN where the SMTP server is located, and ensure that the LAN is connected to an intranet or the Internet, depending on the location of the e-mail accounts to which alert emails will be sent.

Steps

1. Click Configuration > Network Configuration > SMTP. The SMTP page is displayed.

Figure 9-6 SMTP Page



2. Set the parameters. Some of the parameters are described in the table below.

 Table 9-3
 Descriptions for Configuring SMTP Parameters

Parameter	Description	
Email Server	Email server name.	
Port	Port number for the email server.	
Authentication	Select Enable if authentication is required. If authentication is enabled, you need to set the username and password for authentication.	
Sender Name	Name of the sender to be shown to the email receipt(s).	
Sender Address	Address of the sender to be shown to the email receipt(s).	
Receipt	Email receipt. Up to 10 receipts can be entered and which must be separated with a ";".	

- **3.** After you have completed the settings, click **Test** to check the settings.
- **4.** If the settings are correct, click **OK**.

Configuring DNS

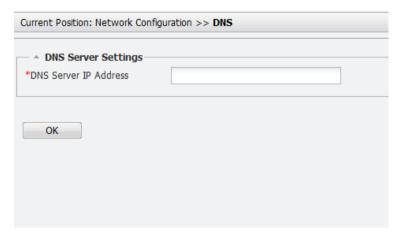
Purpose

This step is required if you use a Domain Name System (DNS) server for your NVR.

Steps

1. Click Configuration > Network Configuration > DNS. The DNS page is displayed.

Figure 9-7 DNS Page



- 2. In the DNS Server IP Address text box, enter the IP address of the DNS server.
- 3. Click OK.

10 NVR Management and Maintenance

Setting Your NVR

Set parameters for your NVR, including basic information, date and time, and language.

Setting Basic Information

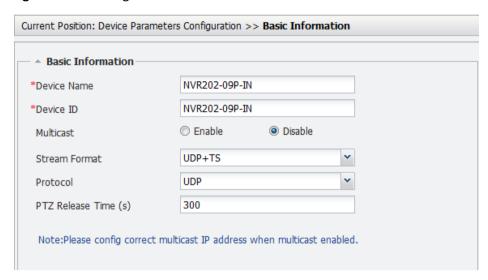
Purpose

Set the basic information about your NVR, including the name and ID of your NVR, multicast settings, stream format, transfer protocol, and management mode.

Steps

1. Click Configuration > Device Parameters > Basic Information. The Basic Information page is displayed. The following shows an example.

Figure 10-1 Setting the Basic Information



- 2. Set the name and ID for your NVR.
- 3. Enable or disable multicast as required. For detailed descriptions about multicast, see 错误! 未找到引用源。.
- **4.** For **Stream Format** and **Protocol**, keep the default setting unless a modification is necessary.
- 5. Set PTZ Release Time as required. This parameter sets the length of time that elapses before a PTZ is released automatically when the user controlling the PTZ does not perform any operation and no other user is gaining control of the PTZ from the current user during this period.
- **6.** For **Server Management**, select **Server Management** only when your NVR is managed by a higher-level management platform.
- 7. After you have completed the settings, click **OK**.

Setting Date and Time

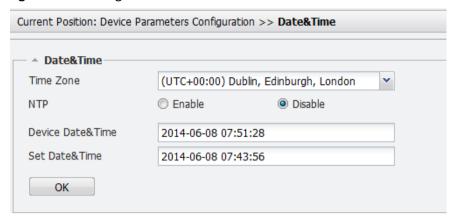
Purpose

Set date and time for your NVR.

Steps

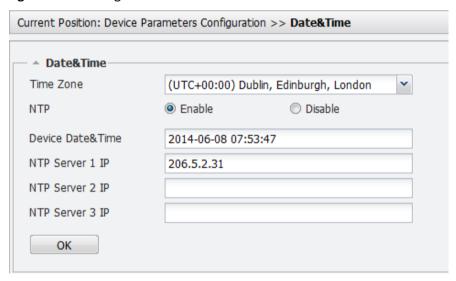
1. Click Configuration > Device Parameters > Date&Time. The Date&Time page is displayed. The following shows an example.

Figure 10-2 Setting Date and Time



- 2. Select a correct time zone from the drop-down list for your NVR.
- **3.** (Optional) Select **Enable** for **NTP** if you have an NTP server. After this function is enabled, you need to set the NTP server address. When the settings are completed, the time on your NVR will be synchronized with the NTP server. The following shows an example.

Figure 10-3 Setting the Date and Time with NTP Enabled



- 4. Set the correct time in the Set Date&Time field.
- **5.** After you have completed the settings, click **OK**.

Setting the Language

- 1. Click Configuration > Device Parameters > Language.
- 2. Select the desired language from the drop-down list.
- 3. Click OK.

Viewing System Version Information

Purpose

View version information of your NVR, including the device type, bar code, software and hardware versions, and Uboot and SCM versions.

Steps

 Click Maintenance > Running Status > Version Information. The Version Information page is displayed.

Viewing Operation Information

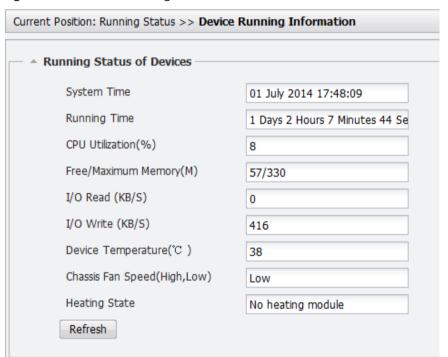
Purpose

View information about operation status of your NVR, including the current system time, length of time that the system has been operating, CPU usage information, RAM information, etc.

Steps

1. Click Maintenance > Running Status > Device Running Information. The Device Running Information page is displayed. The following shows an example.

Figure 10-4 Device Running Information



Viewing Network Status

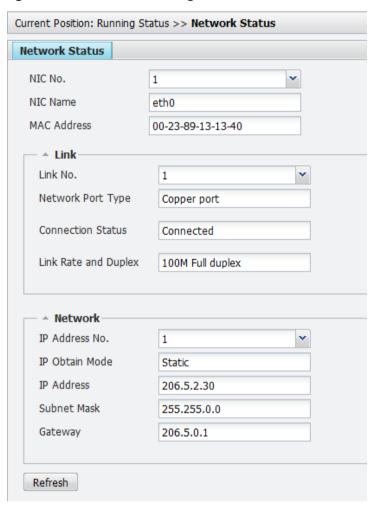
Purpose

View the current status of the network, including information about the current NIC, link, IP address, subnet mask, and gateway.

Steps

1. Click Maintenance > Running Status > Network Status. The Network Status page is displayed. The following shows an example.

Figure 10-5 Network Status Page



2. Click **Refresh** to get the latest status information.

Viewing Service Statistics

Purpose

View service statistics of your NVR, such as the number of live video services established, number of two-way voice sessions, and number of users logged in to the NVR.

Steps

1. Click **Maintenance** > **Running Status** > **Service Statistics**. The **Service Statistics** page is displayed. The following shows an example.

Figure 10-6 Service Statistics Page

Current Position: Running Status >> Service Statistics		
	Name	Total
1	Number of Live Video Services Established	0
2	Number of Two-Way Voice Sessions Established	0
3	Number of Users Currently Logged In	1

Viewing Server Information

Purpose

This operation is effective only when your NVR is operating in management mode, which means your NVR is managed by a central server.

View server information, including the server IP address and the protocol being used for connection to the central server.

Steps

1. Click Maintenance > Running Status > Server Information. The Server Information page is displayed. If your NVR is operating in stand-alone mode, the Management Mode indicates stand-alone mode.

Viewing Alarms

View alarms in the system, including instant alarms and history alarms.

Viewing Instant Alarms

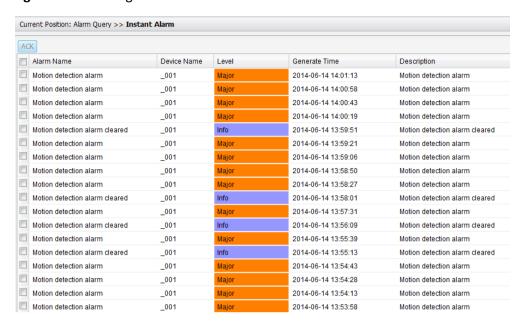
Purpose

View instant alarms in the system and handle these alarms as required based on alarm level.

Steps

1. Click **Maintenance** > **Alarm Query** > **Instant Alarm**. The **Instant Alarm** page is displayed. The following shows an example.

Figure 10-7 Viewing Instant Alarms



- **2.** View the detailed alarm information, including the alarm name, name of the involved device, alarm level, time of generation.
- 3. To acknowledge an alarm, select the alarm and then click the ACK button.

Viewing History Alarms

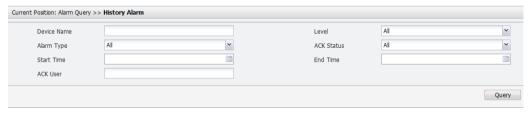
Purpose

View history alarms, including alarm name, involved devices, alarm level, time when the alarm is raised, and current alarm status.

Steps

1. Click Maintenance > Alarm Query > Instant Alarm. The History Alarm page is displayed.

Figure 10-8 History Alarm Page



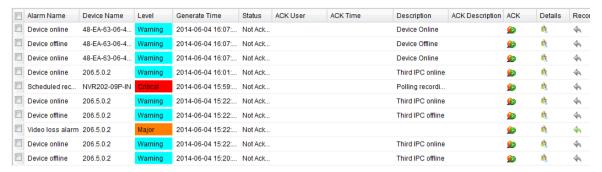
(Optional) Set query conditions by specifying the device name, alarm type, time, alarm level, alarm status as required. The following shows an example.

Figure 10-9 Alarm Query Conditions



3. Click Query. Alarms meeting the query conditions are listed. The following shows an example.

Figure 10-10 Retrieved Alarms



4. View the detailed alarm information. To view the recording triggered by an alarm, click in the **Recording Query** column. The live view window appears and starts to play the recording.

Exporting and Importing Configuration File

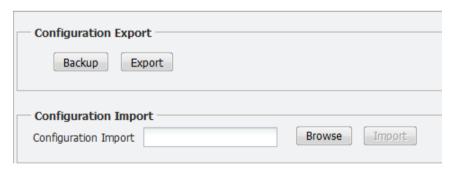
Purpose

To save the current configuration information, you can export the configuration file. You can also import configuration file to save the trouble of manually configuring the device repeatedly.

Steps

 Click Maintenance > Device Maintenance > Export&Import. The Export&Import page is displayed.

Figure 10-11 Export&Import Page



Click Backup to generate the configuration file, and then click Export to save the file to PC. You can also import the configuration file (click Browse to select the file).

Restoring Default Settings

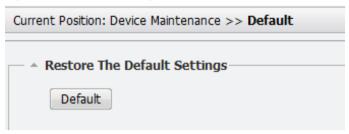
Purpose

Restore factory defaults for your NVR. Perform this operation with caution because you will lose all the current custom settings when the restore operation is completed.

Steps

1. Click Maintenance > Device Maintenance > Default. The Default page is displayed.

Figure 10-12 Default Page



- 2. Click **Default**. A message appears for your confirmation.
- 3. Click **YES** to proceed, or click **NO** to cancel the operation.

Viewing Logs

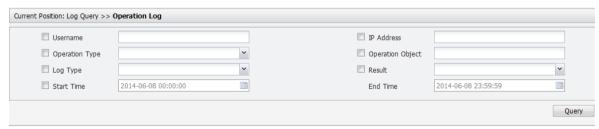
Purpose

View the generated logs to gain information about events that have occurred in the system.

Steps

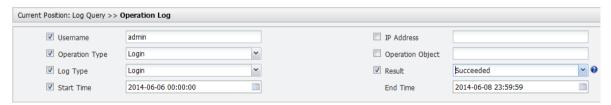
1. Click Maintenance > Log Query > Operation Log. The Operation Log page is displayed.

Figure 10-13 Operation Log Page



2. Select the desired items and set query conditions. The following shows an example.

Figure 10-14 Setting Log Query Conditions



3. Click **Query** to start query, or click **Reset** to set the query conditions all over again. The logs found based on your query conditions are displayed. The following shows an example.

Figure 10-15 Retrieved Operation Logs

Username	Operation Time	IP Address	Description
admin	2014-06-08 07:58:55	206.6.0.90	User admin loged in system , operation result: Succeeded.
admin	2014-06-08 07:15:27	206.6.0.90	User admin loged in system , operation result: Succeeded.
admin	2014-06-07 15:35:51	206.6.0.90	User admin loged in system , operation result: Succeeded.
admin	2014-06-07 14:29:14	206.6.0.90	User admin loged in system , operation result: Succeeded.
admin	2014-06-07 14:26:23	206.5.0.83	User admin loged in system , operation result: Succeeded.
admin	2014-06-07 09:26:10	206.6.0.90	User admin loged in system , operation result: Succeeded.
admin	2014-06-07 09:25:59	206.6.0.90	User admin loged in system, operation result: Succeeded.
admin	2014-06-06 07:34:41	206.6.0.90	User admin loged in system , operation result: Succeeded.

Exporting Logs

Purpose

Export all the logs generated in the system to a specified location for backup.

Steps

1. Click Maintenance > Device Maintenance > Export Log. The Operation Log page is displayed.

Figure 10-16 Export Log Page



- 2. Click Export. A dialog box appears.
- 3. Select the destination folder for the logs to be exported and then click **OK**.

Rebooting Your NVR

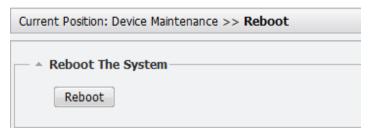
Purpose

Use the Web interface to reboot your NVR.

Steps

1. Click Maintenance > Device Maintenance > Reboot. The Reboot page is displayed.

Figure 10-17 Reboot Page



- 2. Click **Reboot**. A message appears for your conformation.
- 3. Click YES to proceed, or click NO to cancel the operation.

Shutting Down Your NVR

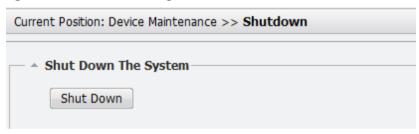
Purpose

Use the Web interface to shut down your NVR.

Steps

1. Click Maintenance > Device Maintenance > Shutdown. The Shutdown page is displayed.

Figure 10-18 Shutdown Page



- 2. Click **Shut Down**. A message appears for your confirmation.
- 3. Click YES to proceed, or click NO to cancel the operation.

Upgrading Your NVR

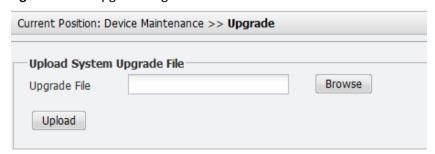
Purpose

Upgrade your NVR to the latest version. Only admin can perform this operation.

Steps

1. Click Maintenance > Device Maintenance > Upgrade. The Upgrade page is displayed.

Figure 10-19 Upgrade Page



- 2. Click **Browse**, locate the upgrade file in the dialog box, and then click **OK**.
- 3. Click Upload.

11 User Management

This chapter describes how to manage users in the system. User management includes adding/deleting user, editing user information, locking/unlocking user, and configuring user permissions.

The system supports up to 31 users.

The system provides three roles: admin, administrator, and operator, the priority of which from high to low is in this same order. In operations to gain control of a resource, a role with higher priority wins. This is also true for users operating through the man-machine interface and the Web interface at the same time. For example, a man-machine interface administrator can gain control of a resource from a Web interface operator because an administrator has higher priority than an operator.

Adding a User

Purpose

This section provides an example that shows you how to add a user whose username and user ID is 001, whose role is Operator, and who has permissions to storage configuration, alarm configuration, alarm process, and log query.

Steps

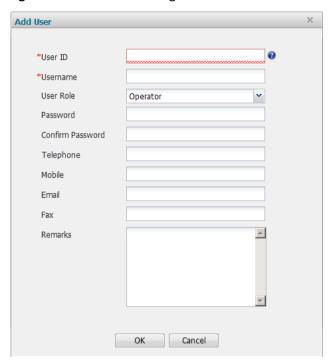
 Click Maintenance > User Management > User Configuration. The User Configuration page is displayed.

Figure 11-1 User Configuration Page



2. Click the **Add** button. The **Add User** dialog box is displayed.

Figure 11-2 Add User Dialog Box



3. Enter the user information, including user ID, username, role, and password. For example, enter **001** as the user ID and username, select **Operator** as the role. Enter other information as required.

Figure 11-3 Example - Adding user 001



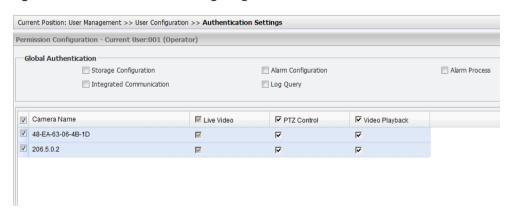
4. After you have completed the information, click **OK** to go back to the **User Configuration** page. User 001 is displayed in the list.

Figure 11-4 Example - User 001 Added



5. In the Authentication Configuration column, click the icon. The Authentication Settings page is displayed.

Figure 11-5 Authentication Settings Page



- **6.** In the camera list, select the camera you allow the user to use, and then select the service(s) that you allow the user to use, for example, PTZ Control, Video Playback.
- 7. In the Global Authentication area, select the permissions you want to assign to the user, for example, Storage Configuration, Alarm Configuration, Alarm Process, and Log Query.

Table 11-1 Global Authentication Description

Parameter	Description
Storage Configuration	This parameter sets whether the user can configure storage in the system. If this option is not selected, the Storage menu under Configuration > Service Configuration is not displayed for the user.
Alarm Configuration	This parameter sets whether the user can configure alarms in the system. If this option is not selected, the Alarm menu under Configuration > Service Configuration is not displayed.

Parameter	Description
Alarm Process	This parameter sets whether the user can query alarms (under Maintenance > Alarm Query) and acknowledge alarms by clicking the Alarm Prompt icon in the upper right of the Web interface.
Integrated Communication	This parameter sets whether the user can use the integrated communication functions such as 2-way audio and broadcast.
Log Query	This parameter sets whether the user can query logs. If this option is not selected, the Maintenance > Log Query is not displayed for the user.

8. After you have completed the settings, click **OK**.

Editing User Information

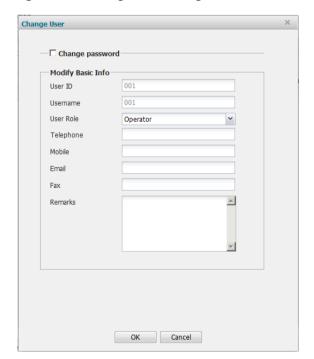
Purpose

Edit user information, including such as user role, contact information.

Steps

On the User Configuration page, click the icon in the Modify column for the user. The
 Change User dialog box is displayed.

Figure 11-6 Change User dialog box



- **2.** Edit the user information as required. If you change the password for an online user, the user must use the new password for the next login. To change your own password, click the Set button in the upper-right corner of the page.
- **3.** After you have completed the modification, click **OK**.

Locking or Unlocking a User

Purpose

Lock a user account so that the corresponding user has no access to the system. A locked user cannot perform any operation in the system until being unlocked. If a user is locked online, the user will be forced to log out and cannot log in until being unlocked.

Steps

- 1. On the User Configuration page, click Lock in the Lock/Unlock column for the user.
- 2. In the dialog box that appears, click YES to confirm the lock operation. The \Box icon changes
 - to ⁶ in the **User Status** column, which means that the user is locked.
- **3.** To unlock the user, click **Unlock** in the **Lock/Unlock** column and then click **OK** in the dialog box.

Deleting a User

Purpose

Delete an unneeded user account. A deleted user cannot log in to the system. If a user is deleted online, the user will be forced to log out of the system immediately.

Steps

- 1. Click Maintenance > User Management. The User Configuration page is displayed.
- 2. Select the user you want to delete and then click the **Delete** button.
- **3.** In the dialog box that appears, click **OK**.

12 Client Computer Settings

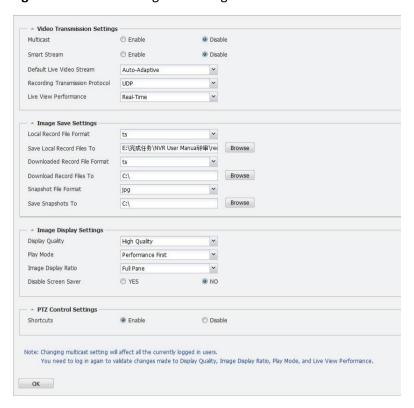
Purpose

You can set parameters for your client computer such as video transmission parameters, PTZ control parameters and image save parameters.

Steps

1. Click **Configuration > Client Configuration > Client Configuration**. The **Client Configuration** page is displayed.

Figure 12-1 Client Configuration Page



2. Set the parameters as required. Some of the parameters are described below.

Table 12-1 Parameter Descriptions for Client Configuration

Parameter	Description
Smart Stream	Enable/disable the auto-switch between main stream and sub stream.
Default Live Video Stream	Choose the default video stream used for live view when IPC is connected to NVR.
Live View Performance	Choose an appropriate way to process video data to meet your monitoring needs.

3. After you have completed the settings, click **OK**.

13 Others

Configuring Encoder

Purpose

After adding an encoder, you can use the NVR to control the encoder like controlling an IPC.

Steps

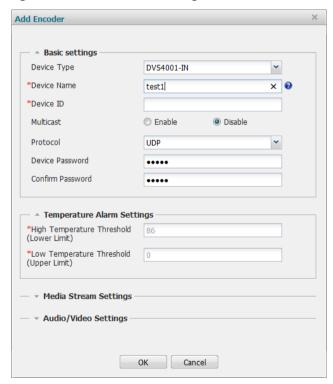
1. Click Configuration > Resource Configuration > Encoder. The Encoder page is displayed.

Figure 13-1 Encoder Page



2. Click Add, and the Add Encoder dialog box is displayed. Configure the parameters as required.

Figure 13-2 Add Encoder Dialog Box



3. After you have completed the settings, click OK.

Configuring Voice Resource

Purpose

Voice resources that can be managed by NVR include encoders, IP cameras (that support audio function) and audio devices. By configuring voice resources, you can talk to single resource or broadcast voice signals to a broadcast group.

Steps

 Click Configuration > Resource Configuration > Voice Resource. The Voice Resource page is displayed. On the Talk/Broadcast tab, the available voice resources are listed. On the Broadcast Group tab, you can add broadcast groups.

Figure 13-3 Voice Resource Page



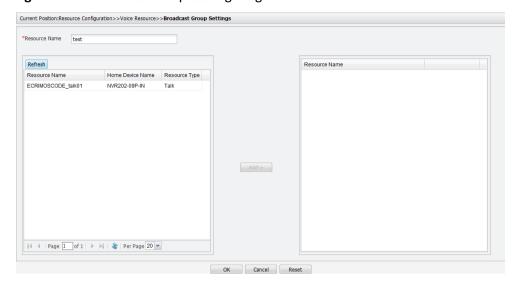
- 2. On the Talk/Broadcast tab, click and configure the voice resource parameters.
- 3. On the Broadcast Group tab, click Add to create a broadcast group. In the Add Broadcast Group Resource dialog box, enter a group name and click OK.

Figure 13-4 Add Broadcast Group Resource Dialog Box



4. Click and allocate voice resources to the created group on the **Broadcast Group Settings** page.

Figure 13-5 Broadcast Group Settings Page



5. After you have completed the settings, click OK.



NOTE!

- The audio devices connected with the audio in and audio out interfaces are the default voice resources on the Talk/Broadcast tab.
- The cameras connected through ONVIF cannot be used as voice resources.

Configuring Serial Port

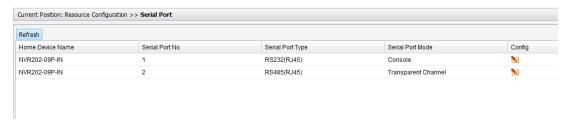
Purpose

Before using a serial port to control an extended device or to maintain the NVR, you must configure serial port parameters.

Steps

1. Click Configuration > Resource configuration > Serial Port. The Serial Port page is displayed. Available serial ports are listed on this page.

Figure 13-6 Serial Port Page



2. For maintenance, click to configure the serial port whose Port Type is RS232(RJ45), and set the serial parameters in the Serial Port Configuration dialog box.

3. To control an extended device or set a transparent channel, click to configure the serial port whose port type is RS485(RJ45), and set transparent channel parameters in the Serial Port Configuration dialog box.

Figure 13-7 Serial Port Configuration Dialog Box

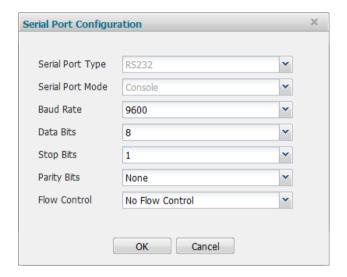
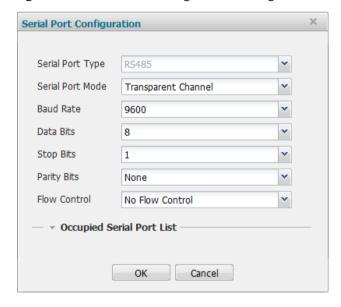


Figure 13-8 Serial Port Configuration Dialog Box



4. After you have completed the settings, click **OK**.

Configuring Virtual Channel

Purpose

The function of virtual channel is to encode multiple video streams into one stream thus lowering the bandwidth requirement. After configuring the virtual channel, you can see the multiple video streams in one pane.

Steps

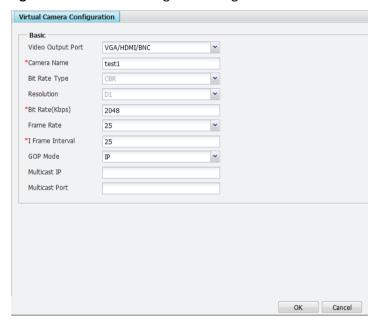
1. Click **Configuration** > **Resource Configuration** > **Virtual Channel**. The **Virtual Channel** page is displayed. In the **status** column, click the sicon to enable the virtual channel.

Figure 13-9 Virtual Channel Page



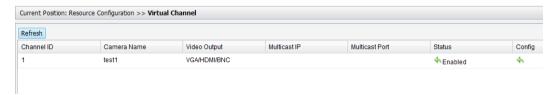
2. On the **Virtual Camera Configuration** page, set the parameters, and click **OK** to enable the virtual channel.

Figure 13-10 Virtual Configuration Page



3. After you enable the virtual channel, the status of the channel turns to **Enabled**.

Figure 13-11 Virtual Channel Page



4. (Optional) To modify the channel parameters, click $\stackrel{\bigstar}{\bullet}$ in the **Config** column.

Configuring Video Output

Purpose

By configuring the video output, you can customize the display of the video output interfaces, for example, auto-switch function and multi-screen display. The available output interfaces that can be configured vary with the device model.

By editing the corresponding video output interfaces, you can configure the display of virtual channel. For details about configuring virtual channel, see Configuring Virtual Channel.

Steps

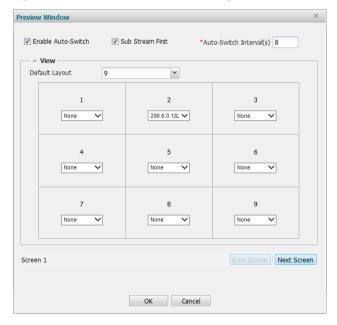
1. Click Configuration > Resource Configuration > Video Output. The Video Output page is displayed.

Figure 13-12 Video Output Page



2. Click in the **Preview Window** column, and then the **Preview Window** dialog box is displayed.

Figure 13-13 Preview Window Dialog Box



3. Set the parameters and then click **OK**.

Configuring Transparent Channel

Purpose

Transparent channel is used to transmit data without operating on them. After configuring the transparent channel, you can control an extended serial device remotely by a PC.

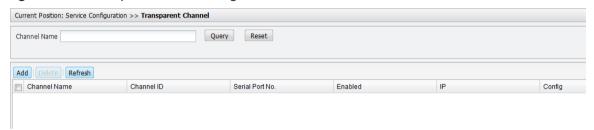
Prerequisite

You must correctly configure serial port before setting the transparent channel parameters. For details about setting a serial port, see Configuring Serial Port.

Steps

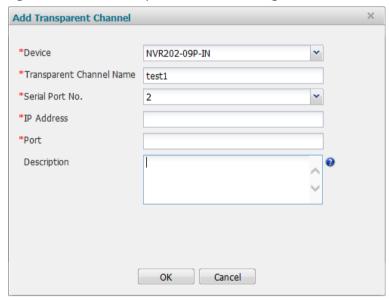
1. Click Configuration > Service Configuration > Transparent Channel. The Transparent Channel page is displayed.

Figure 13-14 Transparent Channel Page



2. Click **Add**. The **Add Transparent Channel** dialog box is displayed. Set the transparent channel parameters as required.

Figure 13-15 Add Transparent Channel Dialog Box



3. After you have completed the settings, click **OK**.

14 FAQs

Why ActiveX cannot be downloaded when I access the Web interface?

1. If no message appears to prompt you to download ActiveX, check your IE settings at Tools > Internet options > Browsing history, and then select Every time I visit the webpage for Check for newer versions of stored pages.

Figure 14-1 Checking Internet Options

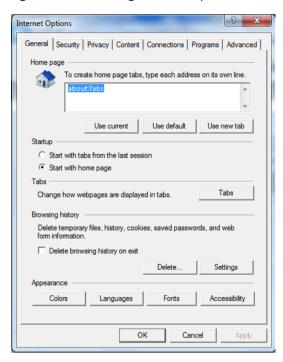
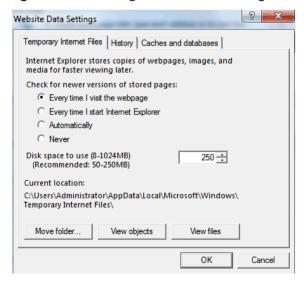


Figure 14-2 Checking Website Data Settings



2. If you cannot log in after entering the IP address in the address bar, add "ActiveX/Setup.exe" at the end of the IP address, for example, enter http://206.2.4.91/ActiveX/Setup.exe, and then try again.

Why I cannot log in after network connection is restored after a disconnection?

Answer: It takes around 5-20 seconds to restore after a network disconnection. So you need to wait for a while and then try again.

Why I cannot rebuild a RAID5?

Answer: The backup disk must be of the same size and brand.

Why the PTZ camera cannot be controlled?

Answer: Check the PTZ protocol and PTZ address and make sure that are set properly.

Some IPCs cannot be connected to the NVR through ONVIF. How to handle this?

Answer:

- 1. Check that the IPC settings including IP, port number, username and password are correct.
- 2. Check that the network connection between the IPC and the NVR is stable.
- 3. The resolution set for the IPC is lower than 1920 x 1080.

The NVR is disconnected from the LAN when PPPoE is enabled.

Answer: When the PPPoE is enabled, a new default route is created, and communication to other network segment on the LAN is disconnected because the default route has been changed, which means that the network connection between the IPC (in a different network segment as the NVR) is lost. So in this case, you need to add a route on the page as shown below.

