# NVR USER GUIDE
## AND MANUAL

LaView
Innovation That Secures

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# Chapter 1 Introduction

## Front Panel of LV-N9808C8E/LV-N9916C6E

LV-N9808C8E

LV-N9916C6E

Description of Control Panel Buttons

## Rear Panel

LV-N9808C8E

LV-N9916C6E/ LV-N9932C6E
Description of Rear Panel Interfaces

## IR Remote Control Operations

The NVR may also be controlled with the included IR remote. Complete instruction on remote control can be found in the online user manual at our download center at www.laviewusa.com/support/download.

**Note:** Batteries (2×AAA) must be installed before operation.

## USB Mouse Operation

A regular 3-button (Left/Right/Scroll-wheel) USB mouse can also be used with this NVR. To use a USB mouse:

1. Plug USB mouse into one of the USB interfaces on the front panel of the NVR.
2. The mouse should automatically be detected. In the rare case that the mouse is not detected, the possible reason may be that the two devices are not compatible, please refer to the recommended device list from your provider.

# Chapter 2 Getting Started

## Starting Up and Shutting Down the NVR

*Before you start:*
Check that the voltage of the extra power supply is the same as the NVR's requirement, and the ground connection is working properly.
**Starting up the NVR:**
*Steps:*
1. Check that the power supply is plugged into an electrical outlet. It is HIGHLY recommended that an Uninterruptible Power Supply (UPS) be used in conjunction with the device.
2. Turn on the power switch on the rear panel.
3. After startup, the Power LED indicator turns on . A splash screen with the status of the HDD appears on the monitor. The row of icons at the bottom of the screen shows the HDD status. 'X' means that the HDD is not installed or cannot be detected.

**Shutting down the NVR**
*Steps:*
1. Enter the Shutdown menu.
   Menu > Shutdown

| | | |
|---|---|---|
| 🖳 Configuration ▸ | Logout | |
| 🗶 Maintenance ▸ | Shutdown | |
| ⏻ Shutdown ▸ | Reboot | |
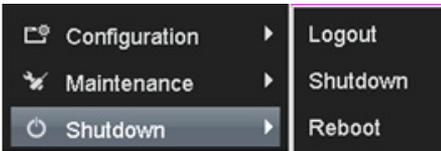
Shutdown Menu

2. Click the **Shutdown** button.
3. Click the **Yes** button.
4. Turn off the power switch on the rear panel when the Prompt pops up.

Please power off!
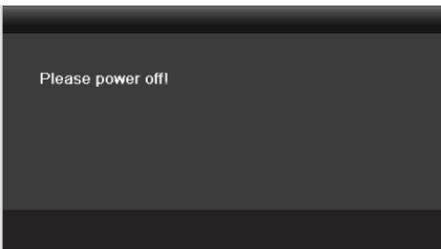
Shutdown Prompt

**Rebooting the NVR**
In the Shutdown menu, you can also reboot the NVR.
*Steps:*
1. Enter the **Shutdown** menu by clicking Menu > Shutdown.
2. Click the **Logout** button to lock the NVR or the **Reboot** button to reboot the NVR.

## Password

The default password for the NVR is 12345. In newer firmware, you may be asked to create your own password the first time you turn on the system. Please contact our tech support if you do not remember your password.

## Adding and Connecting IP Cameras

*Note:* **ONVIF compatibility** means the camera can be supported both when it uses the ONVIF protocol and its private protocols. **Only ONVIF is supported** means the camera can only be supported when it uses the ONVIF protocol.

### Adding the Online IP Cameras

*Purpose:*
The main function of the NVR is to connect the network cameras and record the video captured. So before you can get live view or recorded video, you should add the network cameras to the connection list of the device.
*Before you start:*
Ensure that the network connection is valid and correct. For detailed checking and configuring of the network, please see *Chapter Checking Network Traffic* and *Chapter Configuring Network Detection.*
**Option 1:**
*Steps:*
1. Right-click the mouse when you are in live view mode to show the menu bar.

   | ♠ Menu | ▢ ⊞ ⊞ ▢ ⊞ ▨ ⚙ ▣ |

2. Select ▨ (Auto**)** or ▨ (Manual).

   • **Auto**
   The device will add the detected IP cameras or encoders automatically by using the admin user name and password.

| Add IP Camera (Auto) | | | | |
|---|---|---|---|---|
| Cam... | Status | IP Camera A... | Camera Name | Protocol | Device Model |
| D2 | ● | 172.6.23.65 | Camera 01 | PRIVATE | NC-KDO32 |

Adding succeeded.

Exit
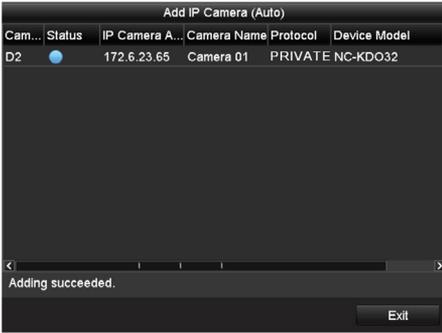
Auto Adding IP Camera Interface

*Note:* If the user name and password are changed, the auto adding of IP camera may fail. you may add it manually if necessary.

• **Manual**

*Steps:*
1.  To add online cameras with same network segment:
    1)  The detected online camera will be listed in the camera list, as shown in the figure below.

| IP Camera Management | | | | | | |
|---|---|---|---|---|---|---|
| Cam... | Add/De... | Status | IP Camera A... | Edit | Camera Name | Protocol | Device Model |
| D1 | 🗑 | ● | 172.6.23.177 | 🖉 | Camera01 | PRIVATE | DS-2CD0464C-C... |
| ... | ⊕ | – | 172.6.23.65 | 🖉 | – | PRIVATE | NC-KDO32 |

Refresh   Delete All   Add All   Custom Addi...

Net Receive Idle Bandwidth: 37Mbps

Exit
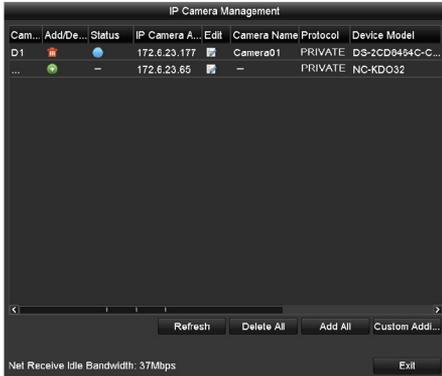
Manual Adding IP Camera Interface

2)  Click the [+] button to add the camera.
2.  To add other IP cameras:
    1)  Click the **Custom Adding** button to see the Add IP Camera (Custom) interface.

| Add IP Camera (Custom) | | | | | |
|---|---|---|---|---|---|
| No. | IP Address | Amount of... | Device M... | Protocol | Managem |
| 1 | 172.6.23.65 | 1 | NC-KDO32 | PRIVATE | 8000 |

| | |
|---|---|
| IP Camera Address | 172.6.23.65 |
| Protocol | PRIVATE |
| Management Port | 8000 |
| User Name | admin |
| Admin Password | |

Protocol   Search   Add   Cancel

Manual Adding IP Camera Interface

2)  You can edit the IP address, protocol, management port, and other information for the IP camera.
3)  Click **Add** to add the camera.

**Option 2:**
*Steps:*
1.  Enter the Camera Management interface. Menu> Camera> Camera

| | |
|---|---|
| 📤 Export ▶ | Camera |
| 🖥 Manual ▶ | OSD |
| 🎚 HDD ▶ | Image |
| 🎞 Record ▶ | PTZ |
| 🎥 Camera ▶ | Motion |
| 🖳 Configuration ▶ | Privacy Mask |
| 🛠 Maintenance ▶ | Video Tampering Detection |
| ⏻ Shutdown ▶ | Video Loss |
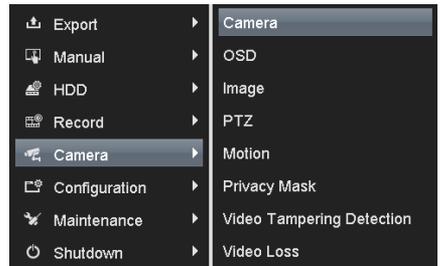
Menu

2.  To add online cameras with same network segment:
    1)  Click **Search** to search for online cameras.
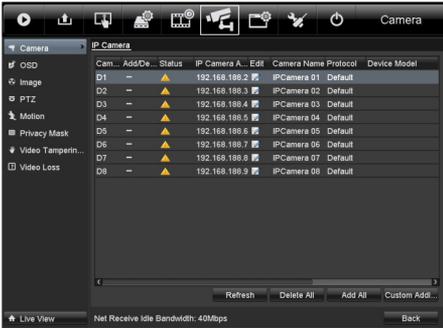
Camera Settings Interface



Edit the Parameters

2) Check the box next to cameras to be added.
3) Click **Quick Add** to add the camera.
3. To add other IP cameras:
   1) On the left side of the interface, you can enter the IP address, protocol, management port, user name, password and other information for the IP camera.
   2) Click **Add** to add the camera.
   *Note:* If you check the Synchronize IP Camera checkbox, the default settings of the NVR for IP cameras is applied to the added camera.

# Editing the Connected IP cameras and Configuring Customized Protocols

After the IP cameras are added, the basic information of the camera will show in the page, you can configure the basic settings of the IP cameras.
*Steps:*

1. Click the ✎ icon to edit the parameters; you can edit the IP address, protocol and other settings.
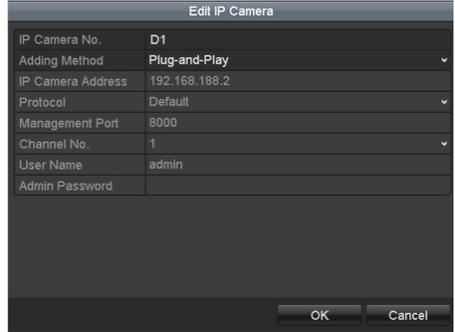
2. Click **apply** to save the settings and click **OK** to exit the editing interface.

## Configuring customized protocols
*Purpose:*
To connect the network cameras which are not configured with standard protocols, you can configure customized protocols for them.
*Steps:*
1. Choose the protocol type and choose the transfer protocols.
*Note:* The protocol type and the transfer protocols must be supported by the connected network camera.
After adding customized protocols, you can see the protocol name listed in the dropdown list.
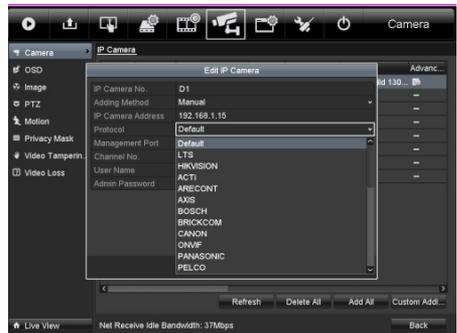


Protocol Setting

2. Choose the protocols you just added to validate the connection of the network camera.

## Editing IP Cameras connected to the PoE interfaces

The PoE interface enables the NVR system to pass electrical power and data, through Ethernet cabling to the connected network cameras.

LaView NVRs provides PoE interfaces which can connect to network cameras directly; and if you dont use the PoE interface, you can also connect to the online network cameras. The PoE interface supports the Plug-and-Play function.

*Example:*
For LaView NVRs, when you want to connect 1 online camera and connect 3 network cameras via PoE interfaces, you must disable 1 PoE interface in the **Edit IP camera** panel.

**To add Cameras for NVR supporting PoE function:**

*Before you start:*
Connect the network cameras using the PoE interfaces.

*Steps:*
1.  Enter the Camera Management interface.
    Main menu> Camera> Camera
    The connected cameras are listed.
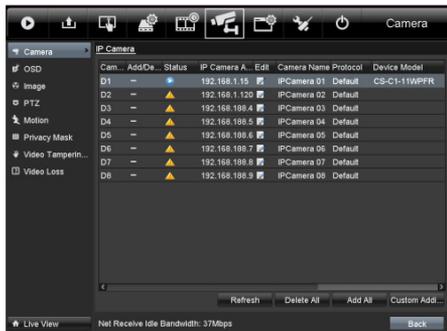


List of Connected Cameras



Edit IP Camera Interface

*Note:* Plug-and-Play means that the camera is connected to the PoE interface. The parameters of the camera can't be edited here. The IP address of the camera can only be edited in the Network Configuration interface, see *Chapter Configuring General Settings* for detailed information.

## Editing IP cameras connected to the built-in switch network interfaces

In LaView NVRs, the extra network interfaces provide a built-in switch with plug-and-play function.

*Example:*
When you want to connect 2 online cameras and 6 network cameras via built-in switch interfaces, you must disable 2 built-in switch interfaces in the **Edit IP camera** panel.

**To add Cameras for NVR via built-in switch interfaces:**

*Before you start:*
Connect the network cameras via the built-in switch interfaces.

*Steps:*
1.  Enter the Camera Management interface.
    Main menu> Camera> Camera
    The connected cameras should be listed.
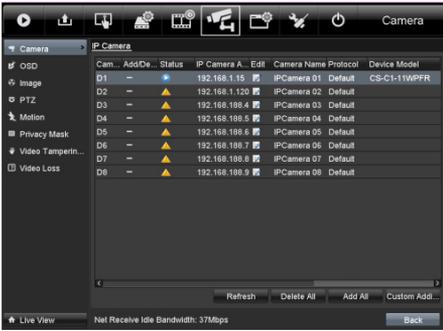
List of Connected Cameras

**Note:** The cameras connected to the built-in switch interface cannot be deleted in this menu.

2. Click the **Edit** button.



Edit IP Camera Interface

**Note:** Plug-and-Play means that the camera is connected to the switch interface. The parameters of the camera can't be edited here. The IP address of the camera can only be edited in the Network Configuration interface. See *Chapter 9.1 Configuring General Settings* for detailed information.

# Introduction of Live View

Live view shows you the video captured by each camera in real time. The NVR automatically enters Live View mode when powered on.

### Live View Icons
In the live view mode, there are icons at the top right of the screen, showing the status of each channel, so that you can see whether the channel is recording, or whether there are alarms are being triggered.

# Operations in Live View Mode

In live view mode, there are many functions provided. The functions are listed below.
- **Single Screen**: Showing only one screen on the monitor.
- **Multi-screen:** Showing multiple screens on the monitor simultaneously.
- **Auto-switch:** The screen is auto switched to the next one. You must set the dwell time for each screen on the configuration menu before enabling auto-switch. Menu>Configuration>Live View>General.
- **Start Recording:** Normal record and motion detection record are supported.
- **Output Mode:** Select the output mode to Standard, Bright, Gentle or Vivid.
- **All-day Playback:** Playback the recorded videos for the selected day.

## Using the Mouse in Live View

Mouse Operation in Live View
*Note:* The *dwell time* of the live view configuration must be set before using **Start Auto-switch.**
*Note:* Reboot Intelligence is enabled when right-clicking on a camera as long as, the corresponding camera supports intelligent function


Right-click Menu

*Note:*
- **Two ways to show the Right-click Menu Bar: right-clicking or moving the mouse to the bottom of the screen.**
- **You can click**  **on the right side of the menu bar to clip the menu on the screen.**

## Quick Setting Toolbar in Live View Mode

On the screen of each channel, there is a quick setting toolbar which shows up when you single click the mouse in the one of the camera views.

*Note:* Live View Strategy is only available for network cameras.


Quick Setting Toolbar

Description of Quick Setting Toolbar Icons

Instant Playback only shows the last five minutes. If no recording is found, it means there was no recording during the last five minutes.

Digital Zoom can zoom in on a selected area Left-click and draw to select the area to zoom in.


Digital Zoom

# Adjusting Live View Settings

*Purpose:*

Live View settings can be customized according to your needs. You can configure the output interface, dwell time for each channel, mute /volume for audio, the screen number for each channel, etc.

*Steps:*

1.    Enter the Live View Settings interface. Menu> Configuration> Live View

| General | View | | |
|---------|------|--|--|
| Video Output Interface | VGA/HDMI | | |
| Live View Mode | 1 + 7 | | |
| Dwell Time | No Switch | | |
| Enable Audio Output | ☑ | | |
| Event Output | VGA/HDMI | | |
| Full Screen Monitoring D... | 10s | | |

Live View-General

The settings available in this menu include:

- **Video Output Interface:** Designates the output to be used options include VGA/ HDMI.
- **Live View Mode:** Designates the display mode to be used for Live View.
- **Dwell Time:** The time in seconds between switching of channels when auto-switch is enabled in Live View.
- **Enable Audio Output:** Enables/disables audio output for the selected video output.
- **Event Output:** Designates the output where to show event video.
- **Full Screen Monitoring Dwell Time:** The time in seconds to show an event on screen.

2.    Setting order of cameras
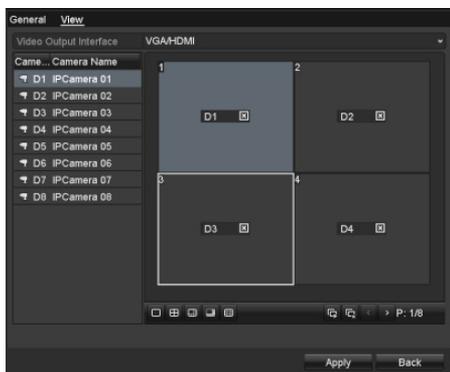
Live View- Camera Order

To set the camera order:

1)    Select a **View** mode

2)    Select the small box, and double-click on the camera number to display that channel on the window.

You can click ⬚ button to enable live view for all the channels and click ⬚ to stop live view.

3)    Click the **Apply** button to save the settings.

# Chapter 4 PTZ Control

## Configuring PTZ Settings

*Purpose:*
Follow the procedure to set the parameters for PTZ. The configuring of the PTZ parameters must be done before you can control the PTZ camera.
*Steps:*
1. Enter the PTZ Settings interface.
   Menu >Camera> PTZ



PTZ- General

2. Choose the camera in the **Camera** dropdown list.
3. Enter the parameters of the PTZ camera.
   *Note:* All the parameters should be in the PTZ camera parameters section of the camera manual.
      *Example:* If the PTZ camera uses the protocol of DRAGON, you should select DRAGON in the PTZ Protocol field.
4. Click **Apply** button to save the settings.

## Setting PTZ Presets, Patrols & Patterns

*Before you start:*
Please make sure that the presets, patrols and patterns are be supported by PTZ protocols.

## Customizing Presets

*Purpose:*
Follow the steps to set the Preset location, which is where you want the PTZ camera to point when an event takes place.
*Steps:*
1. Enter the PTZ Control interface.
   Menu>Camera>PTZ>More Settings



PTZ- More Settings

2. Use the directional button to wheel the camera to the location that you want to as preset.
3. Click the round icon next to **Save Preset**.
4. Click the preset number to save the preset.
Repeat the steps2-4 to save more presets. If the number of the presets you want to save is more than 17, you can click […] and choose the available numbers.



More Presets

## Calling Presets

*Purpose:*
This feature enables the camera to point to a specified position such as a window when a preset is needed.

**Call preset in the PTZ setting interface:**
*Steps:*
1. Enter the PTZ Control interface.
   Menu>Camera>PTZ>More Settings
2. Check the round icon of **Call Preset**.

PTZ- Call Preset

**3.**  Choose the preset number.

**Call preset in live view mode:**
*Steps:*

**1.**  Press the PTZ button on the front panel

or click the PTZ Control icon  in the quick setting bar to enter the PTZ setting menu in live view mode.



PTZ Toolbar

**2.**  Choose C**amera** in the list on the menu.
**3.**  Double click the preset in the **Preset** list to call it.
The camera will move to the saved location from the preset selected.

# Chapter 5 Recording Setting

# Configuring Encoding Parameters

Purpose:
By configuring the encoding parameters you can adjust image quality, through changing transmission stream type, resolution. etc.

*Before you start:*
Make sure that the HDD has already been installed. If not, please install a HDD and initialize it. (Menu>HDD>General)

| L... | Capacity | Status | Property | Type | Free Space | Gr... | Edit | D... |
|------|----------|--------|----------|------|-----------|-------|------|------|
| 5 | 76,319MB | Normal | R/W | Local | 33,792MB | 1 | — | — |

HDD- General

**Check the storage mode of the HDD:**
Click **Advanced** to check the storage mode of the HDD.
If the HDD mode is *Quota*, please set the maximum record capacity and maximum picture capacity. For detailed information, see *Chapter Configuring Quota Mode*.
If the HDD mode is **Group**, you should set the HDD group. For detailed information, see *Chapter Configuring HDD Group for Recording*.

HDD- Advanced

*Steps*:
Enter the Record settings interface to configure the encoding parameters:
Menu>Record>Encoding

Record Encoding

Encoding Parameters for Recording
Select **Record** tab page to configure stream type, resolution, and other parameters as needed.

**Pre-record:** The amount of time to be recorded prior to an alarm-triggered event. For example, if you set the pre-record time as 5 seconds, when an alarm triggers recording at 10:00, the camera saves video starting at 9:59:55.

**Post-record:** The time you set to be recorded after the event. For example, if you set the post-record time as 5 seconds, when an alarm triggered the recording ends at 11:00, it continues recording till 11:00:05.

**Expiration Time:** Expired time, is the amount of time for a record file to be kept in the HDD. If the deadline is reached, the file will be deleted. You can set the expired time to 0, and then files will never be deleted. Storage time for files should be determined by the capacity of the HDD.

**Redundant Record:** Enabling redundant record means the recording is saved in the redundant HDD. See *Chapter Configuring Redundant Recording*.

**Record Audio:** Check the checkbox to enable or disable audio recording.
Click **Apply** to save the settings.

Encoding Parameters Settings for Sub-stream
Enter the Sub-stream tab page.
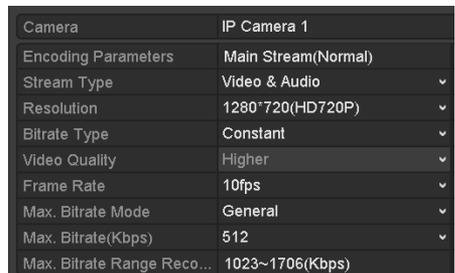
| Camera | IP Camera 1 |
|--------|-------------|
| Encoding Parameters | Main Stream(Normal) |
| Stream Type | Video & Audio |
| Resolution | 1280*720(HD720P) |
| Bitrate Type | Constant |
| Video Quality | Higher |
| Frame Rate | 10fps |
| Max. Bitrate Mode | General |
| Max. Bitrate(Kbps) | 512 |
| Max. Bitrate Range Reco... | 1023~1706(Kbps) |

Sub-stream Encoding

Configure the parameters of the camera.
Click Apply to save the settings.

# Configuring Record Schedule

*Purpose:*
Set the recording schedule for the camera to automatically start/stop recording according to the configured schedule.
Steps:
Enter the Record Schedule interface.

Menu>Record>Schedule
Configure Record Schedule
Select Record Schedule.
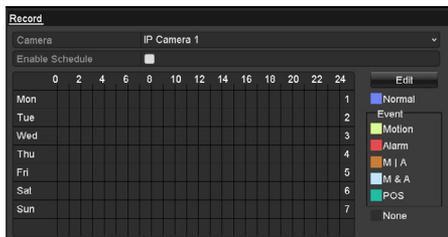
**Record Schedule**

Choose the camera you want to configure.
check the checkbox next to **Enable Schedule** item.
Click **Edit** button or click the icon under the edit button and click and drag the schedule desired on the panel.

**Edit the schedule:**
In the message box, you can choose the day to which you want to set schedule.
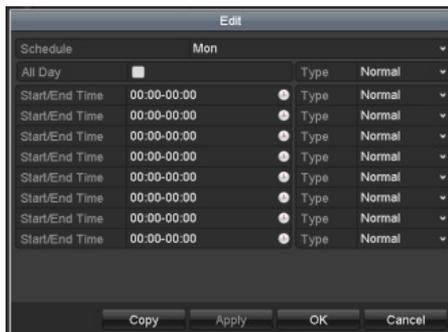
Recording Schedule Interface

Click the  button to set a recording schedule.
To schedule all-day recording, check the checkbox next to **All Day**.

Edit Schedule

To arrange any other schedule, leave the **All Day** checkbox blank and set the Start/End time.
*Note:* Up to 8 periods can be configured for each day. The time periods cannot be overlapped.

Repeat these steps to schedule recording for other days of the week. If the schedule can also be applied to other days, click **Copy**.
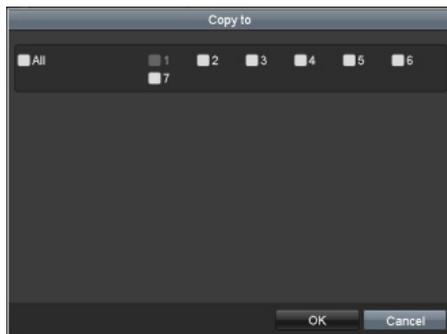
Copy Schedule to Other Days

Click **OK** to go back to upper level menu.
Click **Apply** in the Record Schedule interface to save the settings.
**Draw the schedule:**
Click on the color icons, you can choose the scheduled recording type as normal or event triggered.
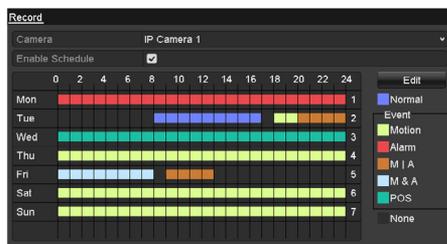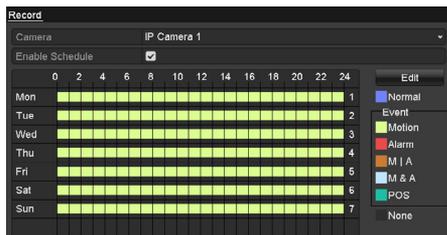
Draw the Schedule

Descriptions of the scheduled recording icons are shown in the figure below.
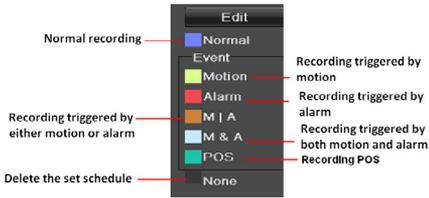


Descriptions of the scheduled recording icons

Click the **Apply** button to validate the settings.
If you wish to use these settings for other channels, click **Copy**, then choose the channel to which you want to copy the settings.
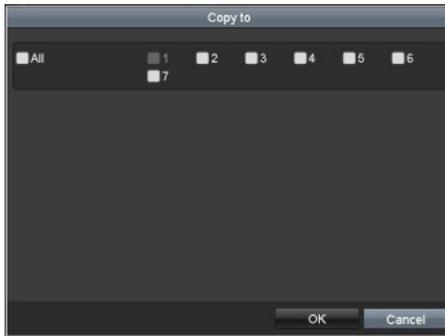


Copy Schedule to Other Channels

# Configuring Motion Detection Record

*Purpose:*
Follow these steps to set the motion detection parameters. In live view mode, when a motion detection event takes place, the NVR can analyze it and carry out a variety of actions to handle it. Enabling motion detection function can trigger certain channels to start recording, full screen monitoring, audio warning, notify the surveillance center etc.

*Steps:*
Enter the Motion Detection interface.
Menu>Camera>Motion



Motion Detection

Configure Motion Detection：
Choose camera you want to configure.
Check the checkbox next to **Enable Motion Detection**.
Crop the area for motion detection by mouse. If you want to set motion detection for the area shot by the camera, click **Full Screen**. To start over, click **Clear**.



Motion Detection- Grid

Click **Setting** to select channels that will link to the motion detection trigger.



Motion Detection Settings

Select the channels for which you want the motion detection event to trigger recording.
Click **Apply** to save the settings.
Click **OK** to go back to menu.
Exit the Motion Detection menu.
For detailed information on schedule configuration, see *Chapter Configuring Record Schedule.*

# Manual Record

*Purpose:*
Follow the steps to set parameters for manual recording.

*Steps:*
Enter the Manual settings interface.
Menu> Manual
Or press the **REC** button on the remote control.
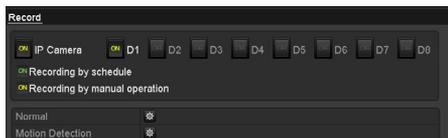


Manual Record

Enabling Manual Record:
Select **Record** on the left bar.
Next to the  camera number, change OFF to ON.

Disabling manual record:
Next to the camera number, change ON to OFF.

*Note:* After rebooting, all manual records enabled are canceled.

Start all-day continuous recording or all-day motion detection recording of all channels:
Click ❋ for Continuous or Motion Detection.



Continuous Recording



Motion Detection Recording

Click Yes to enable all-day continuous recording or all-day motion detection recording on all channels.

# Chapter 6 Playback

## Playing Back Record Files

### *Playing Back by Channel*

***Purpose:***
Play back the recorded video files of a specific channel in live view mode. Channel switch is supported.

**OPTION 1:**
Choose a channel in live view mode using the mouse and click the ⬚ button in the quick setting toolbar.
***Note:*** In instant playback mode, only files recorded during the last five minutes on this channel will be played back.



Instant Playback Interface

**OPTION 2:**
Enter the Playback interface.
Mouse: right click a channel in live view mode and select ⬚ from the menu.
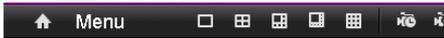


Right-click Menu under Live View

Front Panel: press **PLAY** button to play back recorded files from the channel under single-screen live view mode.
When on multi-screen live view mode, the recorded files from the top-left channel will be played back.
***Note:*** During playback process, pressing the numerical buttons will switch playback to the corresponding channels.
Playback management:
The toolbar on the bottom of the Playback interface can be used to control playing progress.



Playback Interface

Click on multiple channel(s) to execute simultaneous playback.



Toolbar of Playback

***Note:***                                    The


2013-09-10 16:18:14 -- 2013-09-10 18:44:22

indicates the start/end time of recording.
Detailed Explanation of Playback Toolbar

***Note:*** Playback progress bar: Use the mouse to click on point in the progress bar or drag the progress bar to locate specific frames.

### *Playing Back by Time*

***Purpose:***
Play back video files recorded in specified time duration. Multi-channel simultaneous playback and channel switch are supported.
***Steps:***
Enter playback interface.
Menu>Playback
Check off channel(s) in the channel list and then double-click to select a date on the calendar.

Playback Calendar

**Note:**

If a camera has recordings from that day, the icon

in the calendar is displayed as ![10]. Otherwise it is

displayed as ![11]. The selected date is surrounded

by a white rectangle, as in ![10].

In the Playback interface:

The toolbar at the bottom of the Playback interface can be used to control playing progress.



Interface of Playback by Time



Toolbar of Playback by Time

Detailed Explanation of Playback-by-time Interface
**Note:**
Playback progress bar: Use the mouse to click on any point in the progress bar or drag the progress bar to locate specific frames.

# *Playing Back by Event Search*

**Purpose:**
Play back specific files on one or several channels by restricting event type (e.g. alarm input and motion detection).
**Steps:**
Enter the Playback interface.
Menu>Playback
Select **Event** in the drop-down list on the top-left.
Select **Alarm Input** or **Motion** as the event type and set the Start time and End time.



Alarm Input Search Interface
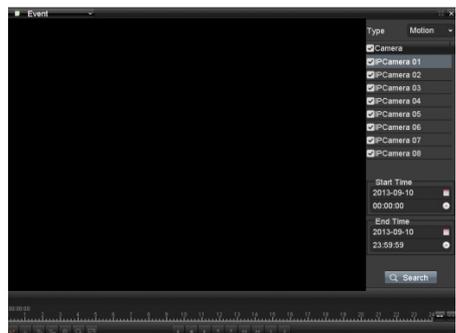


Motion Search Interface

Click the **Search** button to get search results from the information provided. Refer to right-side bar for results.
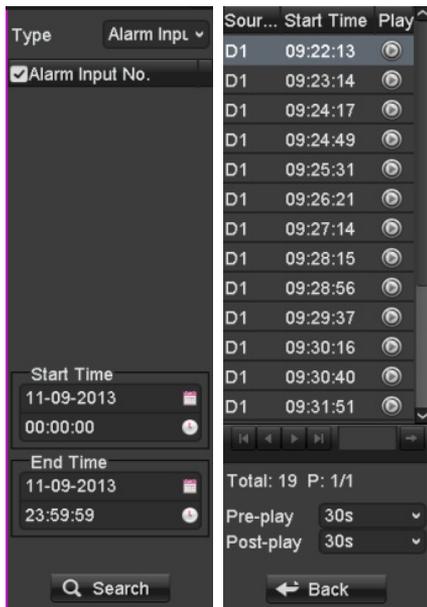


Search Result Bar(Alarm In and Motion)

Click ⊙ button to play back the file.
*Note:*
Pre-play and post-play can be configured.
If the event is set to trigger recording on multiple channels, clicking the ⊙ will activate the Synch Playback interface. You can select which channels to play back synchronously.
Click the **Back** button to go back to the search interface.
Playback interface:
The toolbar at the bottom of the Playback interface can be used to control playing progress.



Interface of Playback by Event



Toolbar of Playback by Event

Detailed Explanation of Playback-by-Event Toolbar
*Note:*
Playback progress bar: Use the mouse to click on any point in the progress bar or drag the progress bar to locate specific frames.

# Smart Search

*Purpose:*
In order to locate motion detection events easily in the playback progress bar, you can analyze a certain area/scene to get all of the related motion detection events that occurred in the area.
*Note:* The smart search function may vary according to the camera connected to the NVR.
*Before you start:*
Log in the network camera using your web browser, and enable the Dynamic Analysis for Motion by checking the checkbox next to it. Enter the motion detection configuration interface:
Configuration> Advanced Configuration> Events> Motion Detection.

Motion Detection Settings



Crop of Smart Search Area

Enable the motion detection function and set the arming area to full screen using the NVR's local menu.

**Steps:**

Enter the Playback interface and play a record file.



Interface of Playback by Time

Click [icon] on the playback toolbar to enter Smart Search mode.

Click and drag the mouse to crop an area. You can click the [icon] button to set the whole screen as a search area. After cropping an area, click the [icon] button to execute smart search in this area.

**Note:** Multi-area searching modes are supported.

Smart search findings will be marked as ▬▬▬ in the progress bar.

The hidden list of recorded files appear when mouse is moved to the right of the playback interface.



Smart Search Findings



Smart Search Playback Toolbar

**Note:**

2013-09-10 16:18:14 -- 2013-09-10 18:4

Indicates the start/end time of the record.

Detailed Explanation of Smart Search Playback Toolbar

**Note:**

Playback progress bar: Use the mouse to click on any point in the progress bar or drag the progress bar to locate specific frames.

## *Digital Zoom*

*Steps:*

Click the ![icon] button on the playback toolbar to enter Digital Zoom interface.

Use the mouse to crop an area and the cropped image will be enlarged up to 16 times.



Draw Area for Digital Zoom

Right-click the image to exit the digital zoom interface.

## *Reverse Playback of Multi-channel*

*Purpose:*

You can play back multi-channel recordings in reverse. 16-ch (with up to 1280*720 resolution), 4-ch (with up to 1920*1080P resolution) and 1-ch (with up to 2560*1920 resolution) reverse playback are all supported.

*Steps:*

Enter Playback interface.

Menu>Playback

Check multiple checkboxes to select multiple channels, and select a date on the calendar.



4-ch Synchronous Playback Interface

Click ![icon] to play back recordings in reverse.

# Chapter7 Backup

# Backing Up Files

## Quick Export

*Purpose:*
Export record files to backup device(s) quickly.
*Steps:*
**1.** Enter Video Export interface.
Menu>Export>Normal
Choose the channel(s) you want to back up
and click **Quick Export**.
*Note:* The time duration of recordings on
a specified channel cannot exceed one day.
Otherwise, the message box "Max. 24 hours
are allowed for quick export." will pop up.
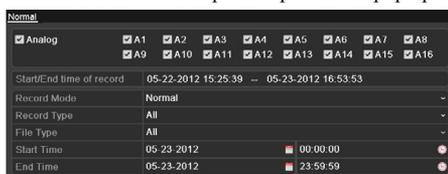


Video Export Interface

**2.** Export.
Go to Export interface, choose backup
device and click **Export** to start exporting.
*Note:* Here we show a USB Flash Drive.
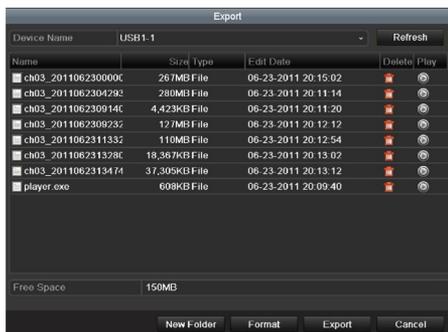


Quick Export using USB1-1

Stay in the Export interface until all
desired files are exported.
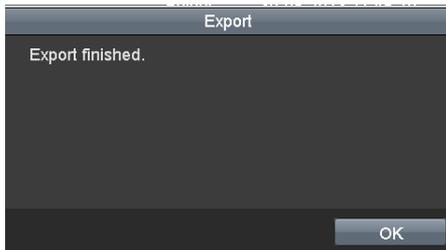


Export Finished

**3.** Check backup result.
Choose the file in the Export interface and
click ⊙ to check it.
*Note:* The Player (player.exe) will be
exported automatically.
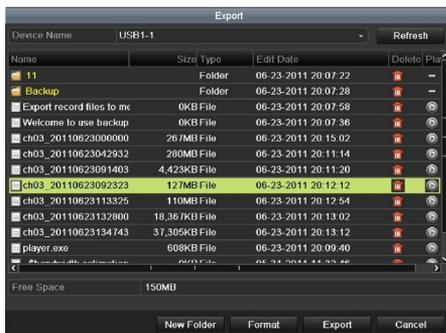


Checkup of Quick Export Result Using USB1-1

## Backing up by Video Search

*Purpose:*
Files can be stored to various devices, such as
USB devices (USB flash drives, USB HDDs, USB
writer) and DVD-R/W.
**Backup using USB flash drives, USB HDDs,
USB writer and DVD-R/W**
*Steps:*
**1.** Enter Export interface.
Menu>Export>Normal
**2.** Set search condition and click **Search** .

*Notes:*
1) Six different Record types are
selectable: Continuous, Motion,
Alarm, Motion & Alarm, Command
Triggered and Manual.
2) Two different file types are selectable:
Unlocked and Locked.

Normal Video Search for Backup

**3.** Select the files you want to back up.

Click  to play the file if you want to check it.

Check the checkbox next to the files you want to back up.

*Note:* The size of currently selected files is displayed in the lower-left corner of the window.
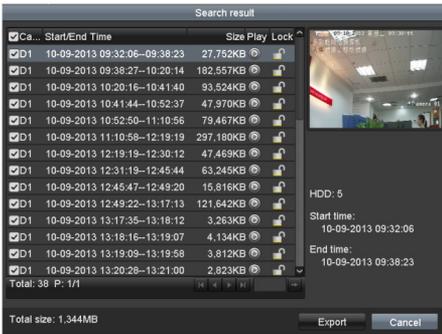


Result of Normal Video Search for Backup

**4.** Export.

Click **Export** and start backup.

*Note:* If the inserted device is not recognized:

- Click **Refresh**.
- Reconnect device.
- Check for compatibility from vendor.

You can also format USB flash drives or USB HDDs via the device. USB writer and DVD-R/W cannot be formatted.
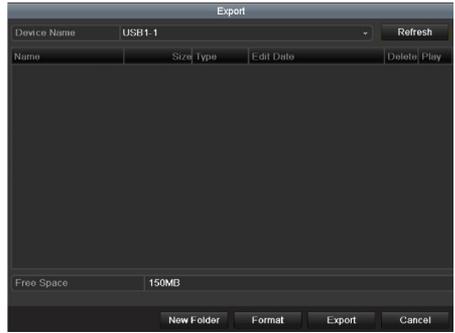


Export by Normal Video Search using USB Flash Drive
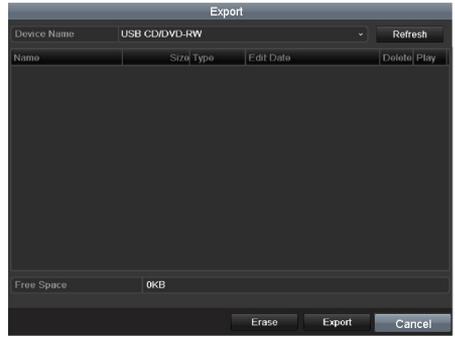


Export by Normal Video Search using USB Writer

Stay in the Export interface until all files are exported. A message box saying "Export finished" will signify the process is complete.
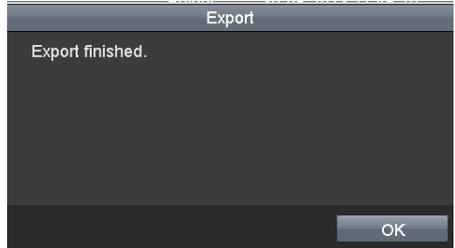


Export Finished

**5.** Check backup result.

Choose the file in Export interface and click  to check it.

*Note:* The Player (player.exe) will be exported automatically.
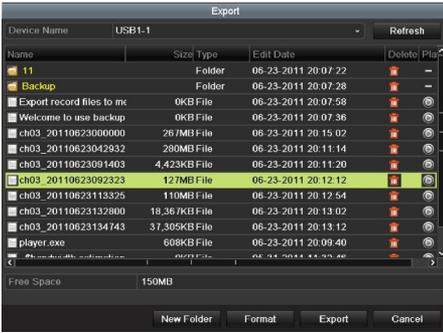
Checkup of Export Result using USB Flash Drive
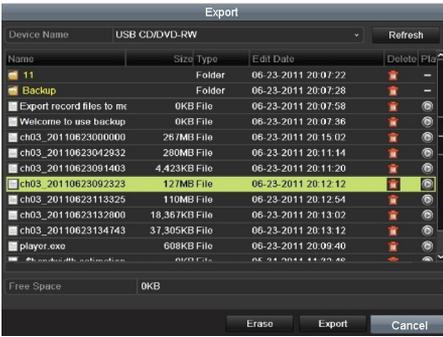


Checkup of Export Result using USB Writer

# Chapter 8 Network Settings

## Configuring General Settings

*Purpose:*
Network settings must be properly configured before you operate NVR over network.
*Steps:*
1. Enter the Network Settings interface.
   Menu >Configuration>Network
2. Select the **General** tab.

| NIC Type | 10M/100M/1000M Self-adaptive |
| Enable DHCP | ☐ |
| IPv4 Address | 172 .6 .23 .8 |
| IPv4 Subnet Mask | 255 .255 .255 .0 |
| IPv4 Default Gateway | 172 .6 .23 .1 |
| IPv6 Address 1 | fe80::8ee7:48ff:fe16:f73c/64 |
| IPv6 Address 2 | |
| IPv6 Default Gateway | |
| MAC Address | 8c:e7:48:16:f7:3c |
| MTU(Bytes) | 1500 |
| Preferred DNS Server | 10.1.7.88 |
| Alternate DNS Server | 10.1.7.77 |
| Internal NIC IPv4 Address | 192 .168 .254 .1 |

Network Settings Interface

3. In the **General Settings** interface, you can configure the following settings: NIC Type, IPv4 Address, IPv4 Gateway, MTU and DNS Server.
   If the DHCP server is available, you can check the checkbox next to **DHCP** to automatically obtain an IP address and other network settings from that server.
   *Note:* For the LV-N9808C8E series NVR, you need to configure the internal NIC address, so that IP addresses are assigned to the cameras connected to the PoE or built-in switch interfaces.
   *Note:* The valid value range of MTU is 500 ~ 9676.
4. After configuring the general settings, click **Apply** to save the settings.

## Configuring advanceed Settings

### Configuring PPPoE

*Purpose:*
Your NVR also allows access by Point-to-Point Protocol over Ethernet (PPPoE).
*Steps:*
1. Enter the **Network Settings** interface.
   Menu >Configuration> Network
2. Select the **PPPoE** tab to enter the PPPoE Settings interface, as shown in Figure 9. 2.

| Enable PPPOE | ☐ |
| User Name | |
| Password | |
| Confirm | |

PPPoE Settings Interface

3. Check the **PPPoE** checkbox to enable this feature.
4. Enter **User Name**, **Password**, and **Confirm Password** for PPPoE access.
   *Note:* The User Name and Password should be assigned by your ISP.
5. Click **Apply** to save and exit the interface.
6. The system will ask you to reboot the device to enable the new settings, and the PPPoE dial-up will be automatically connected after reboot.
You can go to Menu >Maintenance>System Info >Network interface to view the status of the PPPoE connection. Please refer to *Chapter Viewing System Information* for checking PPPoE status.

## Configuring DDNS

*Purpose:*
If your NVR is set to use PPPoE as its default network connection, you may set Dynamic DNS (DDNS) to be used for network access.
Prior registration with your ISP is required before configuring the system to use DDNS.
*Steps:*
1. Enter the Network Settings interface.
   Menu >Configuration> Network
2. Select the **DDNS** tab to enter the DDNS Settings interface, as shown in Figure 9. 3.

| Enable DDNS | ☑ |
| DDNS Type | IPServer |
| Server Address | |
| Device Domain Name | |
| User Name | |
| Password | |
| Confirm | |

DDNS Settings Interface

3. Check the **DDNS** checkbox to enable this feature.
4. Select **DDNS Type**. Five different DDNS types are selectable: IPServer, DynDNS, PeanutHull, NO-IP and HiDDNS.

## Configuring NTP Server

***Purpose:***

A Network Time Protocol (NTP) Server can be configured on your NVR to ensure the accuracy of system date/time.

***Steps:***
1. Enter the Network Settings interface. Menu >Configuration> Network
2. Select the **NTP** tab to enter the NTP Settings interface, as shown in Figure 9. 13.



NTP Settings Interface

3. Check the **Enable NTP** checkbox to enable this feature.
4. Configure the following NTP settings:
   - **Interval:** Time between the two synchronizing actions with NTP server. The unit of time is in minutes.
   - **NTP Server:** IP address of NTP server.
   - **NTP Port:** Port of NTP server.
5. Click the **Apply** button to save settings and exit the interface.

*Note:* The time synchronization interval can be set from 1 to 10,080 min, and the default value is 60min. If the NVR is connected to a public network, you should use a NTP server that has a time synchronization function, such as the server at the National Time Center (IP Address: 210.72.145.44). If the NVR is set up in a customized network, NTP software can be used to establish a NTP server used for time synchronization.

## Configuring RTSP

***Purpose:***

The RTSP (Real Time Streaming Protocol) is a network control protocol designed for use in entertainment and communications systems to control streaming media servers.

***Steps:***
1. Enter the Network Settings menu Menu >Configuration> Network
2. Select the **More Settings** tab to enter the More Settings menu



RTSP Settings Interface

3. Enter the RTSP port in the text field next to **RTSP Service Port**. The default RTSP port is 554, and you can change it accordingly.
4. Click **Apply** button to save settings and exit the menu.

## Configuring Server and HTTP Ports

***Purpose:***

You can change the server and HTTP ports in the Network Settings menu. The default server port is 8000 and the default HTTP port is 80.

***Steps:***
1. Enter the Network Settings interface. Menu >Configuration> Network
2. Select the **More Settings** tab to enter the More Settings interface, as shown in Figure 9. 15.
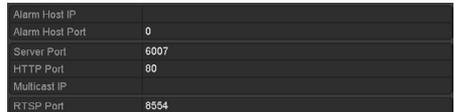


More Settings Interface

3. Enter the Server Port and HTTP Port in the text fields. The default Server Port is 8000 and the HTTP Port is 80, and you can change them according to different requirements.
4. Click **Apply** button to save settigns and exit the interface.

*Note:* The Server Port should be set to the range of 2000-65535 and is used for remote client software access. The HTTP port is used for remote IE access.

## Configuring Email

***Purpose:***

The system can be configured to send an email notification to designated users if, an alarm motion event is detected or if the administrator password is changed.

Before configuring the email Settings, the NVR must be connected to a local area network (LAN) that maintains an SMTP mail server. The network must also be connected to either an intranet or the Internet depending on the location of the e-mail accounts to which you want to send notifications.

*Steps:*
1. Enter the Network Settings interface. Menu >Configuration> Network
2. Set the IPv4 Address, IPv4 Subnet Mask, IPv4 Gateway and the Preferred DNS Server in the Network Settings menu.
3. Click the **Apply** button to save the settings.
1. Select the **Email** tab to enter the Email Settings interface.
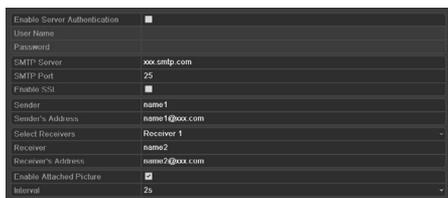


Email Settings Interface

2. Configure the following settings:
   **Server Authentication (optional):**
   Check the checkbox to enable the server authentication feature.
   **User Name**: The user account of sender's email for SMTP server authentication.
   **Password**: The password of sender's email for SMTP server authentication.
   **SMTP Server:** The SMTP Server IP address or host name (e.g., smtp.263xmail.com).
   **SMTP Port No.:** The SMTP port. The default TCP/IP port used for SMTP is 25.
   **Enable SSL (optional):** Click the checkbox to enable SSL if required by the SMTP server.
   **Sender:** The name of sender.
   **Sender's Address:** The email address of sender.
   **Receivers:** Select the receiver. Up to 3 receivers can be configured.
   **Receiver:** The name of user to be notified.
   **Receiver's Address:** The email address of user to be notified.
   **Attached Pictures:** Check the checkbox next to **Enable Attached Picture** if you want to send emails with attached alarm scene images. The interval is the time before another alarm scene image is sent. You can also set SMTP port and enable SSL here.
   **Interval:** The interval refers to the time between two alarm scene pictures.

**E-mail Test:** Sends a test message to verify that the SMTP server can be reached.
3. Click the **Apply** button to save settings.
4. You can click **Test** button to test whether your settings work. An Attention message box will pop up. Refer to 0.
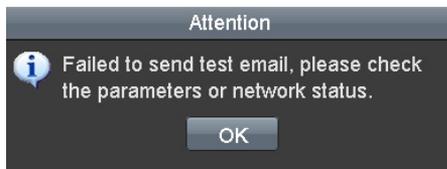




Email Testing Attention

# Chapter 9 HDD Management

## Initializing HDDs

**Purpose:**
A newly installed hard disk drive (HDD) must be initialized before it can be used with your NVR.
**Steps:**
1.   Enter the HDD Information interface.
     Menu > HDD> General



HDD Information Interface

2.   Select HDD to be initialized.
3.   Click the **Init** button.
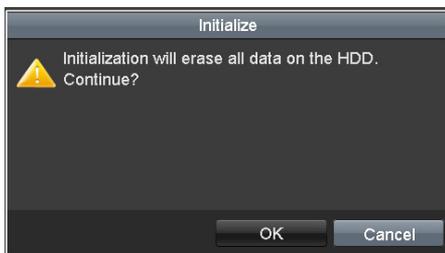


Confirm Initialization

4.   Click the **OK** button to start initialization.
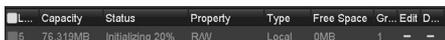


Status Changes to Formatting

5.   After the HDD has been initialized, the status of the HDD will change from *Uninitialized* to *Normal*.



HDD Status Changes to Normal

*Note:* Initializing the HDD will erase all data on it.

## Managing Network HDD

**Purpose:**
You can add the allocated NAS or disk of IP SAN to your NVR, and use it as a network HDD.
**Steps:**
1.   Enter the HDD Information interface.
     Menu > HDD>General
2.   Click the **Add** button to enter the Add NetHDD interface, as shown in Figure 10. 5.
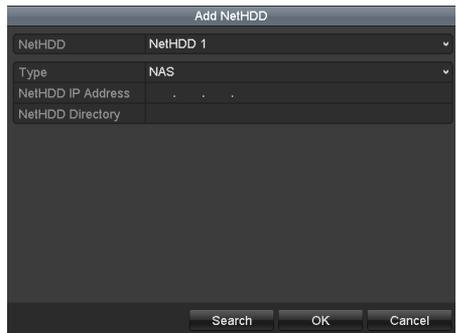


HDD Information Interface

3.   Add the allocated NetHDD.
4.   Select the type as either NAS or IP SAN.
5.   Configure the NAS or IP SAN settings.
     • **Add NAS disk:**
       1)Enter the NetHDD IP address in the text field.
       2)Enter the NetHDD Directory in the text field.
       3)Click the **OK** button to add the configured NAS disk.
     *Note:* Up to 8 NAS disks can be added.

Add NAS Disk



Initialize Added NetHDD
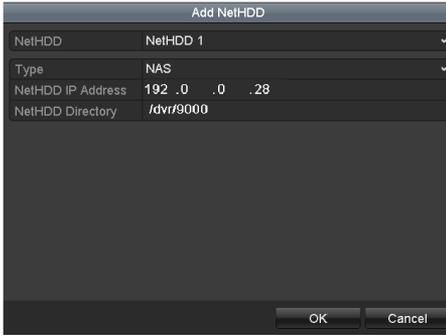
- **Add IP SAN:**
  1) Enter the NetHDD IP address in the text field.
  2) Click the **Search** button to view available IP SAN disks.
  3) Select the IP SAN disk from the list shown.
  4) Click the **OK** button to add the selected IP SAN disk.

  *Note:* Only 1 IP SAN disk can be added.



AddIP SAN Disk

6.  After successfully adding the NAS or IP SAN disk, return to the HDD Information menu. The added NetHDD will now be displayed in the list.
    *Note:* If the added NetHDD is uninitialized, please select it and click the **Init** button for initialization.

# Managing HDD Group

## *Setting HDD Groups*

***Purpose:***
Multiple HDDs can be managed in groups. Video from specified channels can be recorded onto a particular HDD group through HDD settings.

***Steps:***
1.  Enter the Storage Mode interface.
    Menu > HDD > Advanced
2.  Set the **Mode** to Group, as shown in Figure 10. 9.



Storage Mode Interface

3.  Click the **Apply** button and the following message box will pop up;
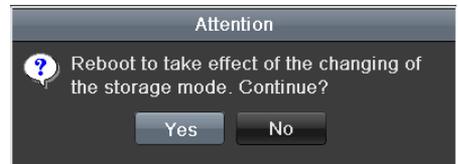


Attention for Reboot

4.  Click the **Yes** button to reboot the device and activate the changes.

**5.** After reboot of device, enter the HDD Information interface.
Menu > HDD> General

**6.** Select HDD from the list and click the [icon] icon to enter the Local HDD Settings interface, as shown in Figure 10. 11.



Local HDD Settings Interface

**7.** Select the Group number for the current HDD.

*Note:* The default group No. for each HDD is 1.

**8.** Click the **OK** button to confirm settings.



Confirm HDD Group Settings

**9.** In the pop-up message box, click the **Yes** button to confirm the settings.

## Setting HDD Property

*Purpose:*
The HDD property can be set to redundancy, read-only or read/write (R/W). Before setting the HDD property, please set the storage mode to Group (refer to steps 1-4 of Chapter Setting HDD Groups ).

A HDD can be set to read-only to prevent important recorded files from being overwritten when the HDD becomes full in overwrite recording mode.

When the HDD property is set to redundancy, the video can be recorded both onto the redundancy HDD and the R/W HDD simultaneously so as to ensure that reliability of video data is highly secured and realiable.

*Steps:*
**1.** Enter the HDD Information interface.
Menu > HDD> General

**2.** Select HDD from the list and click the [icon] icon to enter the Local HDD Settings interface, as shown in Figure 10. 13.



Set HDD Property

**3.** Set the HDD property to R/W, Read-only or Redundancy.

**4.** Click the **OK** button to save settings and exit the interface.

**5.** In the HDD Information menu, the HDD property will be displayed in the list.

*Note:* At least 2 hard disks must be installed on your NVR (and one must be set to R/W property) if you want to set a HDD to Redundancy.

# Chapter 10 Camera Settings

# Configuring OSD Settings

*Purpose:*
You can configure the OSD (On-Screen Display) settings for the camera, including date /time, camera name, etc.

*Steps:*
  1.     Enter the OSD Configuration interface.



*OSD Configuration Interface*

  6.     You can use the mouse to click and drag the text frame on the preview window to adjust the OSD position.
  7.     Click the **Apply** button to apply settings.

# Configuring Privacy Mask

*Purpose:*
You can configure up to four privacy mask zones which will prevent certain areas from being viewed or recorded.

*Steps:*
  1.     Enter the Privacy Mask Settings interface. Menu > Camera >Privacy Mask
  2.     Select the camera to set a privacy mask on.
  3.     Check the checkbox next to **Enable Privacy Mask** to enable this feature.



*Privacy Mask Settings Interface*

  4.     Use the mouse to crop a zone on the window. Different zones will be marked with different frame colors.

*Note:* Up to 4 privacy masks zones can be configured and the size of each area can be adjusted.

  5.     The designated privacy mask zones on the window can be deleted by clicking the corresponding Clear Zone1-4 buttons on the right side of the window, or you canclick **Clear All** to clear all zones.



*Set Privacy Mask Area*

  6.     Click the **Apply** button to save settings.

# Configuring Video Parameters

*Steps:*
  1.     Enter the Image Settings interface. Menu > Camera >Image



*Image Settings Interface*

  2.     Select the camera to set image parameters for.
  3.     Click the arrows to adjust each parameter. Click the **Apply** button to save settings.

# Chapter 11 Maintenance

## Viewing Device Information

*Steps:*
1.  Enter the System Information interface. Menu >Maintenance>System Info
2.  Click the **Device Info** tab to see the Device Information menu where you can access the device name, model, serial No. , firmware version and encoding version.

| Device Info | Camera | Record | Alarm | Network | HDD |
|---|---|---|---|---|---|
| Device Name | X X X X X X X X | | | | |
| Model | X X X X X X X X | | | | |
| Serial No. | X X X X X X X X X X X X X X X X | | | | |
| Firmware Version | V X.X.X | | | | |
| Encoding Version | V X.X.X | | | | |

Device Information Menu

## Viewing Camera Information

*Steps:*
1.  Enter the System Information interface. Menu >Maintenance>System Info
2.  Click the **Camera** tab to see the Camera Information menu where you can view the status of each camera.

| Device Info | Camera | Record | Alarm | Network | HDD |
|---|---|---|---|---|---|
| Camer... | Camera Name | Status | Motion Det... | Video Tamp... | Video Loss |
| D1 | IPCamera 01 | Connected | Occur | Not used | Used |
| D2 | IPCamera 02 | Disconnected | Not support... | Not supported | Not support... |
| D3 | IPCamera 03 | Disconnected | Not support... | Not supported | Not support... |
| D4 | IPCamera 04 | Disconnected | Not support... | Not supported | Not support... |
| D5 | IPCamera 05 | Disconnected | Not support... | Not supported | Not support... |
| D6 | IPCamera 06 | Disconnected | Not support... | Not supported | Not support... |
| D7 | IPCamera 07 | Disconnected | Not support... | Not supported | Not support... |
| D8 | IPCamera 08 | Disconnected | Not support... | Not supported | Not support... |

Camera Information Menu

## Viewing Record Information

*Steps:*
1.  Enter the System Information interface. Menu >Maintenance>System Info
2.  Click the **Record** tab to see the Record Information menu where you can access the recording status encoding parameters of each camera.

| Device Info | Camera | Record | Alarm | Network | HDD |
|---|---|---|---|---|---|
| Camer... | Record... | Stream... | Frame | Bitrate(Kbps) | Resolution | Recor... | Encodi... | Redun... |
| D1 | Used | Video | 30fps | 2048 | 704*576(4... | Normal | Event | No |
| D2 | Not used | Video | 30fps | 2048 | Unknown ... | | Normal | No |
| D3 | Not used | Video | 30fps | 2048 | Unknown ... | | Normal | No |
| D4 | Not used | Video | 30fps | 2048 | Unknown ... | | Normal | No |
| D5 | Not used | Video | 30fps | 2048 | Unknown ... | | Normal | No |
| D6 | Not used | Video | 30fps | 2048 | Unknown ... | | Normal | No |
| D7 | Not used | Video | 30fps | 2048 | Unknown ... | | Normal | No |
| D8 | Not used | Video | 30fps | 2048 | Unknown ... | | Normal | No |

Record Information Menu

## Viewing Alarm Information

*Steps:*
1.  Enter the System Information interface. Menu >Maintenance>System Info
2.  Click the **Alarm** tab to see the Alarm Information menu where you can access the alarm information.

| Device Info | Camera | Record | Alarm | Network | HDD |
|---|---|---|---|---|---|
| No. | Alarm Name | Alarm Type | Alarm Status | Triggered Camera | |
| D2<-1 | | N.O | Used | D1~D4 | |
| D2->1 | | Not supported | Used | | |

Alarm Information Menu

## Viewing Network Information

*Steps:*
1.  Enter the System Information interface. Menu >Maintenance>System Info
2.  Click the **Network** tab to see the Network Information menu where you can view the network information.

| Device Info | Camera | Record | Alarm | Network | HDD |
|---|---|---|---|---|---|
| NIC | | | | LAN1 | |
| IPv4 Address | | | | 192.168.1.250 | |
| IPv4 Subnet Mask | | | | 255.255.255.0 | |
| IPv4 Default Gateway | | | | 192.168.10.1 | |
| IPv6 Address 1 | | | | fe80::8ee7:48ff:fe12:79af/64 | |
| IPv6 Address 2 | | | | | |
| IPv6 Default Gateway | | | | | |
| Preferred DNS Server | | | | 0.0.0.0 | |
| Alternate DNS Server | | | | 0.0.0.0 | |
| Enable DHCP | | | | Disabled | |
| Enable PPPOE | | | | Disabled | |
| PPPOE Address | | | | | |
| PPPOE Subnet Mask | | | | | |
| PPPOE Default Gateway | | | | | |

Network Information Menu

## Viewing HDD Information

*Steps:*
1.  Enter the System Information interface. Menu >Maintenance>System Info
2.  Click the **HDD** tab to see the HDD

Information menu where you can view the HDD status, free space, property, etc.,

| Device Info | Camera | Record | Alarm | Network | HDD | | |
|---|---|---|---|---|---|---|---|
| Label | Status | | Capacity | Free Space | Property | Type | Group |
| 5 | Normal | | 76,319MB | 74,752MB | R/W | Local | 1 |

| Total Capacity | 76,319MB |
|---|---|
| Free Space | 74,752MB |

Back
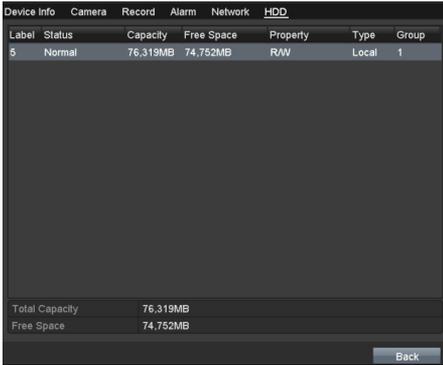
HDD Information Menu

# Searching & Export Log Files

### *Purpose:*
The operation, alarm, exception and other information about the NVR can be stored in log files, which can be viewed and exported at any time.

### *Steps:*
1. Enter the Log Search interface.
   Menu >Maintenance>Log Search

| Log Search | Log Export | | | | | |
|---|---|---|---|---|---|---|
| Start Time | | 10-09-2013 | | 00:00:00 | | |
| End Time | | 10-09-2013 | | 23:59:59 | | |
| Major Type | | All | | | | |
| Minor Type | | All | | | | |
| No. | Major Type | Time | Minor Type | Paramet... | Play | Details |

Total: 0  P: 1/1

Export    Search    Back

Log Search Interface

2. Set the log search conditions to refine your search: Start Time, End Time, Major Type and Minor Type.
3. Click the **Search** button to find matching log files.
4. The matching log files will be displayed on the list shown below.

| Log Search | Log Export | | | | | |
|---|---|---|---|---|---|---|
| Start Time | | 10-09-2013 | | 00:00:00 | | |
| End Time | | 10-09-2013 | | 23:59:59 | | |
| Major Type | | All | | | | |
| Minor Type | | All | | | | |
| No. | Major Type | Time | Minor Type | Paramet... | Play | Details |
| 1 | Operation | 10-09-2013 16:18:13 | Local Operation:... | N/A | — | ✓ |
| 2 | Information | 10-09-2013 16:18:14 | Start Recording | N/A | ◉ | ✓ |
| 3 | Information | 10-09-2013 16:28:09 | System Running... | N/A | — | ✓ |
| 4 | Information | 10-09-2013 16:28:24 | HDD S.M.A.R.T. | N/A | — | ✓ |
| 5 | Operation | 10-09-2013 16:47:44 | Local Operation: Security | — | ✓ | |
| 6 | Information | 10-09-2013 16:48:09 | System Running Status | | — | ✓ |
| 7 | Alarm | 10-09-2013 16:53:23 | Stop Motion Det... | N/A | ◉ | ✓ |
| 8 | Alarm | 10-09-2013 16:53:24 | Start Motion Det... | N/A | ◉ | ✓ |
| 9 | Information | 10-09-2013 17:08:07 | System Running... | N/A | — | ✓ |

Total: 9  P: 1/1

Export    Search    Back

Log Search Results

*Note:* Up to 2000 log files can be displayed at once.

5. You can click the ✓ button of each log or double click it to view its detailed information, you can also click the ◉ button to view the related video files if available.

| Log Information | |
|---|---|
| Time | 10-09-2013 16:18:13 |
| Type | Operation--Local Operation: Initialize HDD |
| Local User | admin |
| Host IP Address | N/A |
| Parameter Type | N/A |
| HDD | 5 |
| Description: | |

User admin initialized the No.5 HDD
Initialization status: Succeeded

Previous    Next    OK
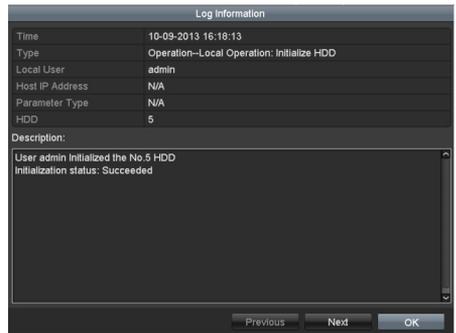
Log Details

6. If you wish to export the log files, click the **Export** button to enter the Export menu.
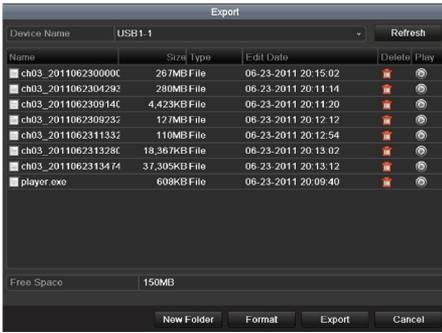
Export Log Files

7.  Select the backup device from the dropdown list under **Device Name**.
8.  Click **Export** to export the log files to the selected backup device.
    You can click the **New Folder** button to create a new folder in the backup device, or click the **Format** button to format the backup device before log export.
    *Notes:*
1)  Please connect the backup device to NVR before initiating log export.
2)  The log files exported to the backup device are named according to exporting time, e.g., *20110514124841logBack.txt*.
    **To export all the log files:**
    You can enter the Log Export interface.
    Menu> Maintenance> Log Information> Log Export
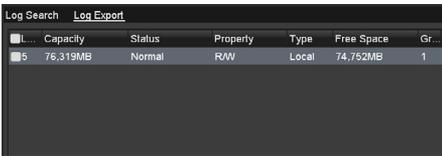


Log Export Interface

    Check the checkbox next to the HDD, and click the Export button to export all the log files stored in the HDD.

# Upgrading System

### Purpose:
The firmware on your NVR can be upgraded by local backup device or remote FTP server.

## Upgrading by Local Backup Device

### Steps:
1.  Connect your NVR with a local backup device where the update firmware file is located.
2.  Enter the Upgrade interface.
    Menu >Maintenance>Upgrade
3.  Click the **Local Upgrade** tab to enter the local upgrade menu, as shown in Figure 12. 13.



Local Upgrade Menu

4.  Select the update firmware file from the backup device.
5.  Click the **Upgrade** button to start upgrade.
6.  After the upgrading is complete, reboot the NVR to activate the new firmware.

# Restoring Default Settings

### Steps:
1.  Enter the Default interface.
    Menu > Maintenance > Default
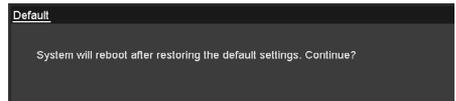


Restore Factory Default

2.  Click the **OK** button to restore the default settings.
*Note:* Besides network parameters (IP address, subnet mask, gateway, MTU, default route and server port), all other parameters of the device will be restored to factory default settings.

# Configuring General Settings

**Purpose:**
Configure the output resolution, system time, and mouse pointer speed. Menu > Configuration > General interface.

**Steps:**
1. Enter the General Settings interface.
   Menu >Configuration> General
2. Select the **General** tab.

General Settings Interface

3. Configure the following settings:
   - **Language:** The default language used is *English*.
   - **Resolution:** Select the output resolution, which must be the same as the resolution of the monitor screen.
   - **Time Zone:** Select the time zone.
   - **Date Format:** Select the date format.
   - **System Date:** Select the system date.
   - **System Time:** Select the system time.
   - **Mouse Pointer Speed:** Set the speed of the pointer; 4 levels are configurable.
   - **Enable Wizard:** Enable/disable the Wizard to appear when the device starts up.
   - **Enable ID Authentication:** Enable/disable the use of the login password.
4. Click the **Apply** button to save settings.

# Configuring DST Settings

**Steps:**
1. Enter the General Settings interface.
   Menu >Configuration>General
2. Select the **DST Settings** tab.
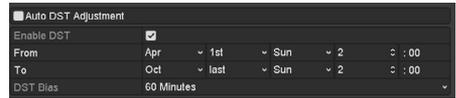
DST Settings Interface

Check the checkbox next to the Auto DST Adjustment item or check the Enable DST checkbox, then choose the date of the DST period.

# Managing User Accounts

**Purpose:**
The default account in the NVR is *Administrator*. The user name is *admin* and the password is *12345*. The *Administrator* has the permission to add/delete users and configure user parameters.

## *Adding a User*

**Steps:**
1. Enter the User Management interface.
   Menu >Configuration>User
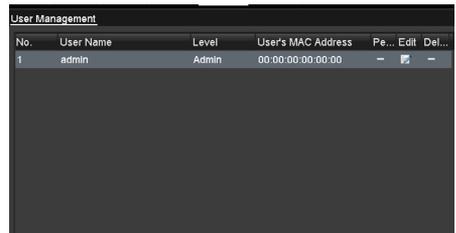
User Management Interface

2. Click the **Add** button to enter the Add User menu.
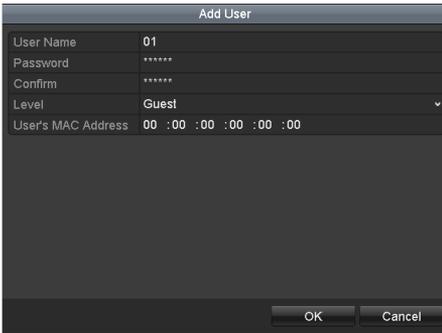
Add User Menu



User Permission Settings Interface

**3.**  Enter the information for a new user: User Name, Password, Level and User's MAC Address.
**Level:** Set the user level to Operator or Guest. Different user levels have different operating permission.

- **Operator:** The *Operator* user level has permission for Two-way Audio in Remote Configuration and all operating permission in Camera Configuration.
- **Guest:** The Guest user does not have permission for Two-way Audio in Remote Configuration and has local/remote playback in Camera Configuration.
- **User's MAC Address:** The MAC address of the remote PC which logs onto the NVR. If it is configured and enabled, it only allows the remote user with this MAC address to access the NVR.

**4.**  Click the **OK** button to save settings and go back to the User Management interface. The added new user will be displayed on the list.
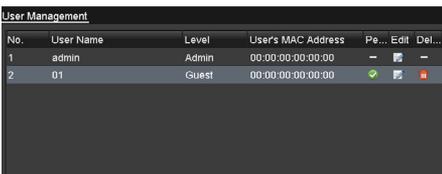


Added User Listed in User Management Interface

**5.**  Select the user from the list and then click the ✅ button to enter the Permission Settings interface, as shown in Figure 13. 14.

**6.**  Set the operating permissions (Local Configuration, Remote Configuration and Camera Configuration) for the user.
**Local Configuration**
- Local Log Search: Searching/viewing logs and system information of NVR.
- Local Parameters Settings: Configuring parameters, restoring factory default parameters and importing/exporting configuration files.
- Local Camera Management: The adding, deleting and editing of IP cameras.
- Local Advanced Operation: Operating HDD management (initializing HDD, setting HDD property), upgrading system firmware, clearing I/O alarm output.
- Local Shutdown Reboot: Shutting down or rebooting the NVR.
**Remote Configuration**
- Remote Log Search: Remotely viewing logs that are saved on the NVR.
- Remote Parameters Settings: Remotely configuring parameters, restoring factory default parameters and importing/exporting configuration files.
- Remote Camera Management: Remote adding, deleting and editing of the IP cameras.
- Remote Serial Port Control: Configuring settings for RS-232 and RS-485 ports.
- Remote Video Output Control: Remotely Sending button control signals.
- Two-Way Audio: Realizing two-way audio between the remote client and the NVR.

- Remote Alarm Control: Remotely arming (notify alarm and exception message to the remote client) and controlling the alarm output.
- Remote Advanced Operation: Remotely operating HDD (initializing HDD, setting HDD property), upgrading system firmware, clearing I/O alarm output.
- Remote Shutdown/Reboot: Remotely shutting down or rebooting the NVR.

**Camera Configuration**
- Remote Live View: Remotely viewing live video from selected camera (s).
- Local Manual Operation: Locally starting/stopping manual recording, photo capturing and alarm output of selected camera (s).
- Remote Manual Operation: Remotely starting/stopping manual recording, photo capturing and alarm output of selected camera (s).
- Local Playback: Locally playing back recorded files from selected camera (s).
- Remote Playback: Remotely playing back recorded files from selected camera (s).
- Local PTZ Control: Locally controlling PTZ movement of selected camera (s).
- Remote PTZ Control: Remotely controlling PTZ movement of selected camera (s).
- Local Video Export: Locally exporting recorded files from selected camera (s).

7. Click the **OK** button to save settings and exit interface.

*Note:* Only the *admin* user account has the permission to restore factory default parameters.

## *Deleting a User*

**Steps:**
1. Enter the User Management interface. Menu >Configuration>User
2. Select the user to be deleted from the list, as shown in Figure 13. 15.



User List

3. Click the 🗑 icon to delete the selected user.

## *Editing a User*

**Steps:**
1. Enter the User Management interface. Menu >Configuration>User
2. Select the user to be edited from the list, as shown in Figure 13. 15.
3. Click the ✏ icon to enter the Edit User interface, as shown in Figure 13. 16.
   *Note:* The admin user can also be edited.



Edit User Interface

4. Edit user information: User name, password, level and MAC address. Check the checkbox **Change Password** if you want to change the password of the current user.
5. Click the **OK** button to save settings and exit the menu.

# FAQ

- **No image displayed on the monitor after starting up normally.**

  *Possible Reasons*

  a)    No VGA or HDMI connections.

  b)    Connection cable is damaged.

  c)    Input mode of the monitor is incorrect.

  *Steps*

  1.    Verify the device is connected with the monitor via HDMI or VGA cable.

     If not, please connect the device with the monitor and reboot.

  2.    Verify the connection cable is good.

     If there is still no image display on the monitor after rebooting, please check if the connection cable is good, and change a cable to connect again.

  3.    Verify Input mode of the monitor is correct.

     Please check the input mode of the monitor matches with the output mode of the device (e.g. if the output mode of NVR is HDMI output, then the input mode of monitor must be the HDMI input). And if not, please modify the input mode of monitor.

  4.    Check if the fault is solved by the step 1 to step 3.

     If it is solved, finish the process.

     If not, please contact the engineer to do the further process.

- **There is an audible warning sound "Di-Di-Di-DiDi" after a new bought NVR starts up.**
  *Possible Reasons*

  a)    No HDD is installed in the device.

  b)    The installed HDD has not been initialized.

  c)    The installed HDD is not compatible with the NVR or is broken-down.

  *Steps*

  1.    Verify at least one HDD is installed in the NVR.

     1)    If not, please install the compatible HDD.

        *Note:* Please refer to the "Quick Operation Guide" for the HDD installation steps.

     2)    If you don't want to install a HDD, select "Menu>Configuration > Exceptions", and uncheck the Audible Warning checkbox of "HDD Error".

  2.    Verify the HDD is initialized.

     1)    Select "Menu>HDD>General".

     2)    If the status of the HDD is "Uninitialized", please check the checkbox of corresponding HDD and click the "Init" button.

  3.    Verify the HDD is detected or is in good condition.

     1)    Select "Menu>HDD>General".

     2)    If the HDD is not detected or the status is "Abnormal", please replace the dedicated HDD according to the requirement.

  4.    Check if the fault is solved by the step 1 to step 3.

     1)    If it is solved, finish the process.

     2)    If not, please contact the engineer to do the further process.

- **The status of the added IPC displays as "Disconnected" when it is connected through Private Protocol. Select "Menu>Camera>Camera>IP Camera" to get the camera status.**

  *Possible Reasons*

  a)    Network failure, and the NVR and IPC lost connections.

  b)    The configured parameters are incorrect when adding the IPC.

  c)    Insufficient bandwidth.

  *Steps*

  1.    Verify the network is connected.

1) Connect the NVR and PC with the RS-232 cable.

2) Open the Super Terminal software, and execute the ping command. Input "ping IP" (e.g. ping 172.6.22.131).

*Note:* Simultaneously press **Ctrl** and **C** to exit the ping command.

If there exists return information and the time value is little, the network is normal.

2. Verify the configuration parameters are correct.

1) Select "Menu>Camera>Camera>IP Camera".

2) Verify the following parameters are the same with those of the connected IP devices, including IP address, protocol, management port, user name and password.

3. Verify the whether the bandwidth is enough.

1) Select "Menu >Maintenance > Net Detect > Network Stat.".

2) Check the usage of the access bandwidth, and see if the total bandwidth has reached its limit.

4. Check if the fault is solved by the step 1 to step 3.

If it is solved, finish the process.

If not, please contact the engineer to do the further process.

- **The IPC frequently goes online and offline and the status of it displays as "Disconnected".**
  **Possible Reasons**

a) The IPC and the NVR versions are not compatible.

b) Unstable power supply of IPC.

c) Unstable network between IPC and NVR.

d) Limited flow by the switch connected with IPC and NVR.

*Steps*

1. Verify the IPC and the NVR versions are compatible.

1) Enter the IPC Management interface "Menu > Camera > Camera>IP Camera", and view the firmware version of connected IPC.

2) Enter the System Info interface "Menu>Maintenance>System Info>Device Info", and view the firmware version of NVR.

2. Verify power supply of IPC is stable.

1) Verify the power indicator is normal.

2) When the IPC is offline, please try the ping command on PC to check if the PC connects with the IPC.

3. Verify the network between IPC and NVR is stable.

1) When the IPC is offline, connect PC and NVR with the RS-232 cable.

2) Open the Super Terminal, use the ping command and keep sending large data packages to the connected IPC, and check if there exists packet loss.

*Note:* Simultaneously press **Ctrl** and **C** to exit the ping command.

*Example:* Input **ping 172.6.22.131 –l 1472 –f.**

4. Verify the switch is not flow control.

Check the brand, model of the switch connecting IPC and NVR, and contact with the manufacturer of the switch to check if it has the function of flow control. If so, please turn it down.

5. Check if the fault is solved by the step 1 to step 4.

If it is solved, finish the process.

If not, please contact the engineer to do the further process.

- **No monitor connected with the NVR locally and when you manage the IPC to connect with the device by web browser remotely, of which the status displays as Connected.**

**And then you connect the device with the monitor via VGA or HDMI interface and reboot the device, there is black screen with the mouse cursor.**

**Connect the NVR with the monitor before startup via VGA or HDMI interface, and manage the IPC to connect with the device locally or remotely, the status of IPC displays as Connect. And then connect the device with the CVBS, and there is black screen either.**

*Possible Reasons:*

After connecting the IPC to the NVR, the image is output via the main spot interface by default.
*Steps:*

1.  Enable the output channel.

2. Select "Menu > Configuration > Live View > View", and select video output interface in the drop-down list and configure the window you want to view.

    *Notes:*

    1)  The view settings can only be configured by the local operation of NVR.

    2)  Different camera orders and window-division modes can be set for different output interfaces separately, and digits like "D1"and "D2" stands for the channel number, and "X" means the selected window has no image output.

3. Check if the fault is solved by the above steps.

    If it is solved, finish the process.

    If not, please contact the engineer to do the further process.

- **Live view stuck when video output locally.**

    *Possible Reasons:*

    a)  Poor network between NVR and IPC, and there exists packet loss during the transmission.

    b)  The motion detection and alarm functions are enabled, and the parameters of Main Stream (Normal) and Main Stream (Event) are different. So the image looks stuck due to the image changes between different resolutions.

c)  The frame rate has not reached the real-time frame rate.

*Steps:*

1.  Verify the network between NVR and IPC is connected.

    1)  When image is stuck, connect the RS-232 ports on PC and the rear panel of NVR with the RS-232 cable.

    2)  Open the Super Terminal, and execute the command of "**ping** *192.168.0.0* **–l 1472 –f**" (the IP address may change according to the real condition), and check if there exists packet loss.

        *Note:* Simultaneously press **Ctrl** and **C** to exit the ping command.

2.  Check the parameters of Main Stream (Normal) and Main Stream (Event).

    Select "Menu > Record > Parameters > Record", and set the resolution of Main Stream (Event) the same as the one of Main Stream (Normal).

3.  Verify the frame rate is real-time frame rate.

    Select "Menu > Record > Parameters > Record", and set the Frame rate to Full Frame.

4.  Check if the fault is solved by the above steps.

    If it is solved, finish the process.
    If not, please contact the engineer to do the further process.

- **Live view stuck when video output remotely via the Internet Explorer or platform software.**

    *Possible Reasons:*

    a)  Poor network between NVR and IPC, and there exists packet loss during the transmission.

    b)  Poor network between NVR and PC, and there exists packet loss during the transmission.

    c)  The performances of hardware are not good enough, including CPU, memory, etc..

    *Steps:*

    1.  Verify the network between NVR and IPC is connected.

1) When image is stuck, connect the RS-232 ports on PC and the rear panel of NVR with the RS-232 cable.

2) Open the Super Terminal, and execute the command of "**ping** *192.168.0.0* **–l 1472 –f**" (the IP address may change according to the real condition), and check if there exists packet loss.

*Note:* Simultaneously press **Ctrl** and **C** to exit the ping command.

2. Verify the network between NVR and PC is connected.

1) Open the cmd window in the Start menu, or you can press "windows+R" shortcut key to open it.

2) Use the ping command to send large packet to the NVR, execute the command of "ping 192.168.0.0 –l 1472 –f" (the IP address may change according to the real condition), and check if there exists packet loss.

*Note:* Simultaneously press **Ctrl** and **C** to exit the ping command.

3. Verify the hardware of the PC is good enough.

Simultaneously press **Ctrl**, **Alt** and **Delete** to enter the windows task management interface, as shown in the following figure.
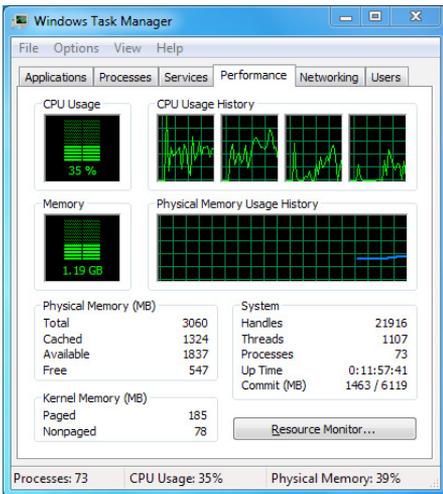


Windows task management interface

● Select the "Performance" tab; check

the status of the CPU and Memory.

● If the resource is not enough, please end some unnecessary processes.

4. Check if the fault is solved by the above steps.

If it is solved, finish the process.
If not, please contact the engineer to do the further process.

● **When using the NVR to get the live view audio, there is no sound or there is too much noise, or the volume is too low.**

*Possible Reasons:*

a) Cable between the pickup and IPC is not connected well; impedance mismatches or incompatible.

b) The stream type is not set as "Video & Audio".

c) The encoding standard is not supported with NVR.

*Steps:*

1. Verify the cable between the pickup and IPC is connected well; impedance matches and compatible.

Log in the IPC directly, and turn the audio on, check if the sound is normal. If not, please contact the manufacturer of the IPC.

2. Verify the setting parameters are correct.

Select "Menu > Record > Parameters > Record", and set the Stream Type as "Audio & Video".

3. Verify the audio encoding standard of the IPC is supported by the NVR.

NVR supports G722.1 and G711 standards, and if the encoding parameter of the input audio is not one of the previous two standards, you can log in the IPC to configure it to the supported standard.

4. Check if the fault is solved by the above steps.

If it is solved, finish the process.
If not, please contact the engineer to do the further process.

● **The image gets stuck when NVR is playing back by single or multi-channel.**

*Possible Reasons:*

a) Poor network between NVR and IPC, and there exists packet loss during the

transmission.

b) The motion detection and alarm functions are enabled, and the parameters of Main Stream (Normal) and Main Stream (Event) are different. So the image looks stuck due to the image changes between different resolutions.

c) The frame rate is not the real-time frame rate.

d) The NVR supports up to 16-channel synchronize playback at the resolution of 4CIF, if you want a 16-channel synchronize playback at the resolution of 720p, the frame extracting may occur, which leads to a slight stuck.

*Steps:*

1. Verify the network between NVR and IPC is connected.

   1) When image is stuck, connect the RS-232 ports on PC and the rear panel of NVR with the RS-232 cable.

   2) Open the Super Terminal, and execute the command of "**ping** *192.168.0.0* **–l 1472 –f**" (the IP address may change according to the real condition), and check if there exists packet loss.

      *Note:* Simultaneously press the **Ctrl** and **C** to exit the ping command.

2. Check the parameters of Main Stream (Normal) and Main Stream (Event).

   Select "Menu > Record > Parameters > Record", and set the resolution of Main Stream (Event) the same as the one of Main Stream (Normal).

3. Verify the frame rate is real-time frame rate.

   Select "Menu > Record > Parameters > Record", and set the Frame Rate to "Full Frame".

4. Verify the hardware can afford the playback.

   Reduce the channel number of playback.

   Select "Menu > Record > Encoding > Record", and set the resolution and bitrate to a lower level.

5. Reduce the number of local playback channel.

   Select "Menu > Playback", and uncheck the checkbox of unnecessary channels.

6. Check if the fault is solved by the above steps.

   If it is solved, finish the process.

   If not, please contact the engineer to do the further process.

- **No record file found in the NVR local HDD, and prompt "No record file found".**

  *Possible Reasons:*

  a) The time setting of system is incorrect.

  b) The search condition is incorrect.

  c) The HDD is error or not detected.

  *Steps:*

  1. Verify the system time setting is correct.

     Select "Menu > Configuration > General > General", and verify the "Device Time" is correct.

  2. Verify the search condition is correct.

     Select "Playback", and verify the channel and time are correct.

  3. Verify the HDD status is normal.

     Select "Menu > HDD > General" to view the HDD status, and verify the HDD is detected and can be read and written normally.

  4. Check if the fault is solved by the above steps.

     If it is solved, finish the process.

     If not, please contact the engineer to do the further process.

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