



# VISION<sub>SERIES</sub>

## Device Management Software

### User Manual

Thank you for purchasing our product. If there are any questions, or requests, please do not hesitate to contact the dealer.

## Notice

- The contents of this document are subject to change without prior notice.
- Best effort has been made to verify the integrity and correctness of the contents in this document, but no statement, information, or recommendation in this manual shall constitute formal guarantee of any kind, express or implied.
- The product appearance shown in this manual is for reference only and may be different from the actual appearance of your device.
- The illustrations in this manual are for reference only and may vary depending on the version or model. So please see the actual display on your device.
- This manual is a guide for multiple product models and so it is not intended for any specific product.
- Due to uncertainties such as physical environment, discrepancy may exist between the actual values and reference values provided in this manual. The ultimate right to interpretation resides in our company.
- Use of this document and the subsequent results shall be entirely on the user's own responsibility.

## Conventions

The following conventions apply in this manual:

- Device management software is referred to as the software for short.
- Hard disk recorder, video server, IP camera and network dome camera are all referred to as device in this manual.
- The figures in this manual are only for your reference. The actual display may vary with software version.

## Document Conventions

Convention	Description
<b>Boldface font</b>	Commands, keywords, parameters and GUI elements such as window, tab, dialog box, menu, button, etc.
<i>Italic font</i>	Variables for which you supply values.
>	Separate a series of menu items, for example, <b>Device Management &gt; Add Device</b> .

## Symbols

Symbol	Description
 <b>WARNING!</b>	Contains important safety instructions and indicates situations that could cause bodily injury.
 <b>CAUTION!</b>	Means reader be careful and improper operations may cause damage or malfunction to product.

Symbol	Description
 <b>NOTE!</b>	Means useful or supplemental information about the use of product.

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# 1 Device Management

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Device management software is a tool kit designed to provide device management and record storage calculation functions for different models of devices including cameras. The device management window is displayed by default after the software is started. You need to add devices to the software before operating the devices.

When managing devices, you can:

- Search online devices in a network and add them using the auto-add function.
- Log in to devices to perform configuration and maintenance operations.

Before you start device management operations, make sure:

- The devices are operating correctly and network communication is normal.
- Initial configuration has completed for the devices.

## Searching Devices

You can use two methods to search devices: multicast search and IP segment search. Multicast search searches devices in a LAN. IP segment search searches devices (compliant with ONVIF) within a network segment, which requires you to set the start and end IP addresses of the network segment. The login username and password are set to “admin” by default for the devices that are found.

### Multicast Search



Click the **Refresh** button. The system automatically searches for online devices in the interconnected network and adds the detected devices to the device list.



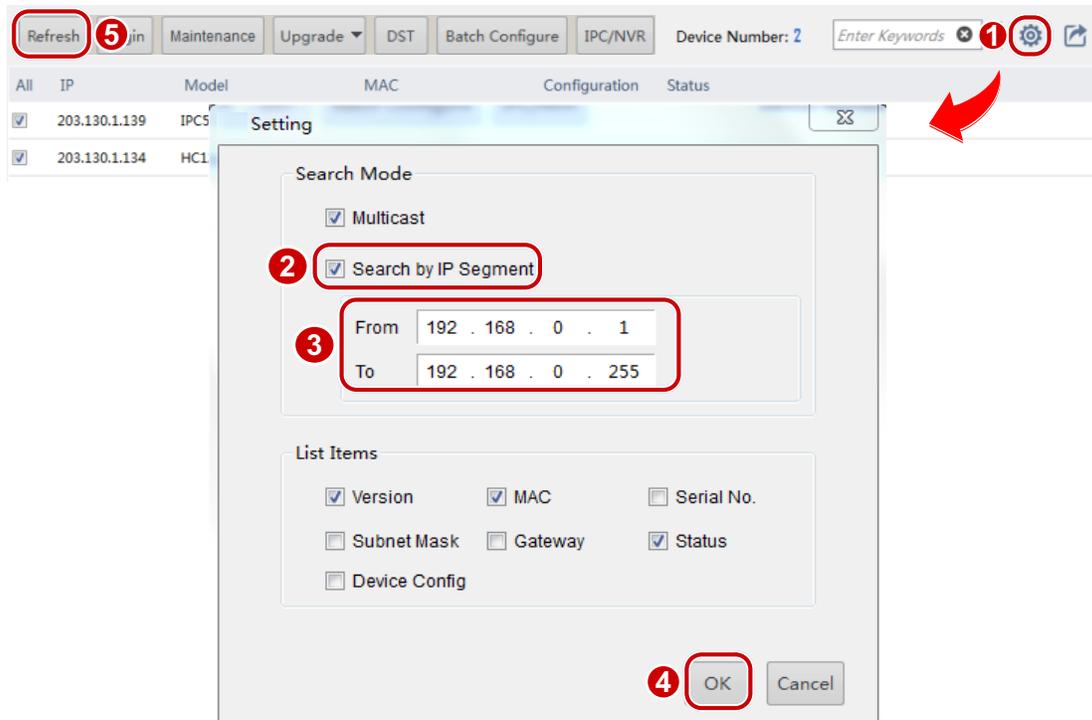
#### **NOTE!**

The system searches devices by multicast by default. If you want to search devices by IP segment, see [IP Segment Search](#).

### IP Segment Search

To search devices in a specified network segment, perform the following steps:

1. Click  on the right side in the device management window. A dialog box is displayed.



2. Select **Search by IP Segment**.
3. Set the IP segment you want to search and then click the **OK** button.
4. Click the **Refresh** button. Devices that are found are added to the list.

## Changing the Password

The initial password is used for your first login. To ensure account security, please change the password after your first login.

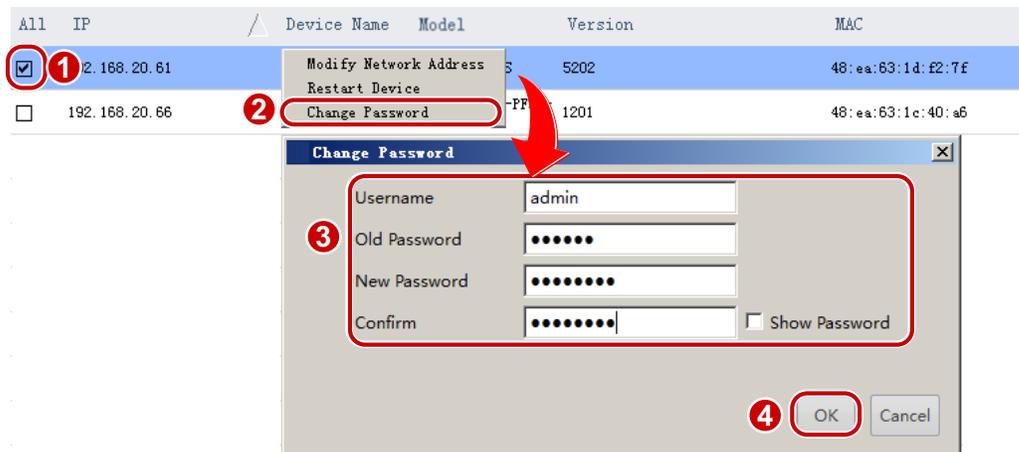
To change the password, perform the following steps:

1. Right-click the desired device and click **Change Password** on the pop-up menu. A dialog box is displayed.



### **NOTE!**

The system supports the modification of the administrator (admin)'s password only.



2. Enter the old password, new password and confirm the new password, and then click the **OK** button.

## Changing Device Name

The names of devices detected by the software are default and can be changed for easy management. To rename the devices, perform the following steps:

1. Select the desired device and double-click the entry. A dialog box is displayed.
2. Rename the device as needed and click **OK**.

## Logging In to Devices

Perform the following steps to log in to devices that are displayed in the **Device Management** list:

1. Select a desired device and then click the **Login** button. A dialog box is displayed.
2. Enter the correct username and password, and then click the **OK** button.

Perform the following steps to log in to a device that is not displayed in the **Device Management** list:

1. Click the **Login** button. A dialog box is displayed.
2. Enter the correct IP address, username and password, and then click the **OK** button.

## Selecting Devices

You can select a device by selecting the check box in the first column. To select multiple devices, choose one of the following methods:

- Select the corresponding check boxes one by one.
- Click **All** to select all the listed devices.
- Hold **<Ctrl>** and click the rows for the desired devices one by one to select devices that are not continuous in the list.
- Hold **<Shift>** and click the row for the first device and then click the row for the last device to select devices that are continuous in the list.

- To select devices that are continuous in the list, select a device and drag the mouse to select other devices.

## Filtering Devices

By entering keywords, you can quickly search the device whose IP or model matches the key words in the device list.

All	IP	Device Name	Model	Version	MAC	Configuration	Status
<input type="checkbox"/>	192.168.20.61	IPC	3232	IPC_5202	48:ea:63:14:e2:7f		Not logged
<input type="checkbox"/>	206.10.241.61	IPC	828				Not logged

## Sorting the Device List

In the device list, click a column title, for example, IP address, model, and status, to sort the listed devices in ascending or descending order.

## Customizing Device List Titles

To customize device list titles, perform the following steps:

- Click on the right side in the device management window. A dialog box is displayed.

The 'Setting' dialog box contains the following options:

- Search Mode:**
  - Multicast
  - Search by IP Segment
  - From: 192 . 168 . 0 . 1
  - To: 192 . 168 . 0 . 255
- List Items:**
  - Version
  - MAC
  - Serial No.
  - Subnet Mask
  - Gateway
  - Status
  - Device Config

Buttons:  OK, Cancel

- Select the desired titles and then click the **OK** button.

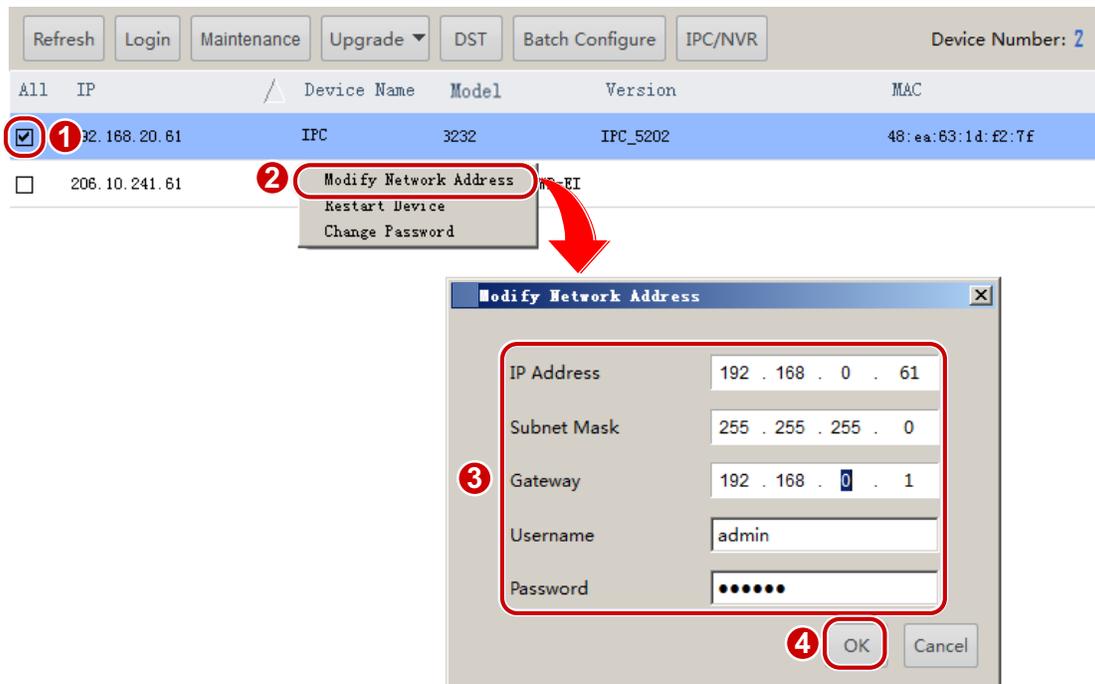
# Configuring a Device

## Modifying the Device Address

To modify the address of a device, including the IP address, subnet mask or default gateway, perform the following steps:

### Modify a single device address

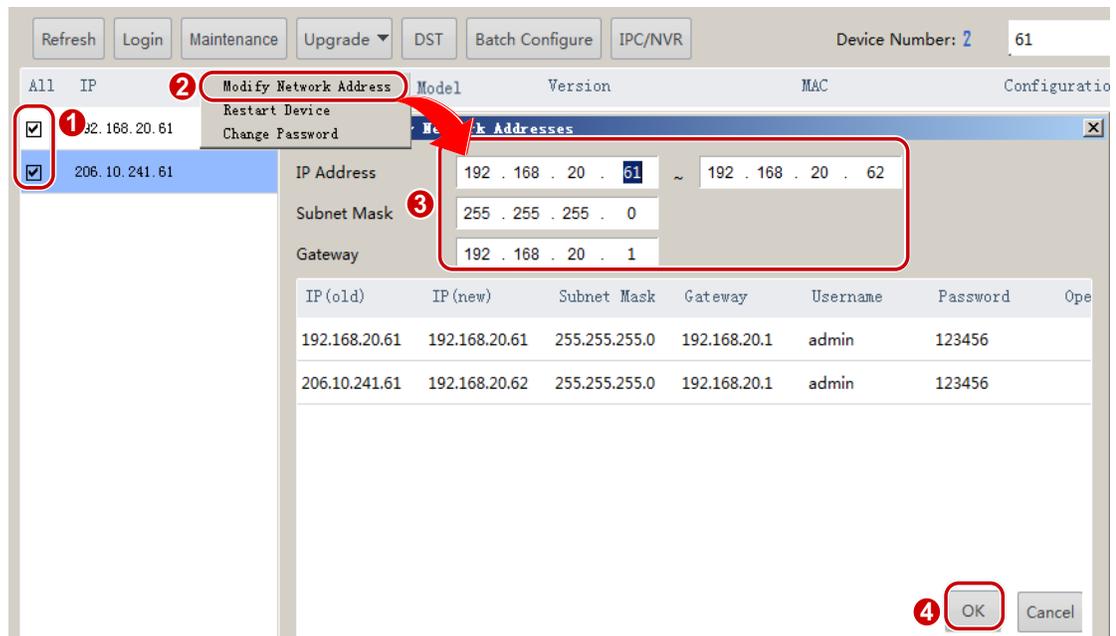
1. Right-click the desired device and click **Modify Network Address** on the pop-up menu. A dialog box is displayed.



2. Modify the parameters and then click the **OK** button.

### Batch modify device addresses

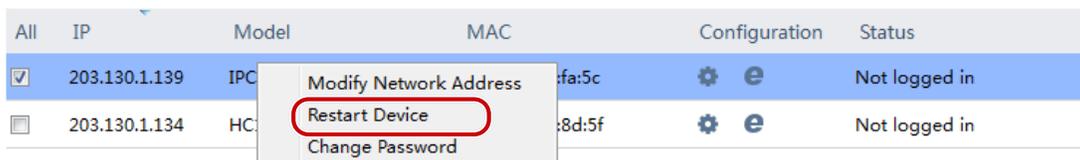
1. Select the desired IPCs and then click **Modify Network Address** on the shortcut menu. A dialog box is displayed.



2. Enter the start IP address, and the software will fill the other information based on the number of devices.
3. Click the **OK** button.

## Restarting a Device

Right-click the desired device and then click **Restart Device** on the shortcut menu. The device will restart after you confirm the operation.



## Setting Image Parameters

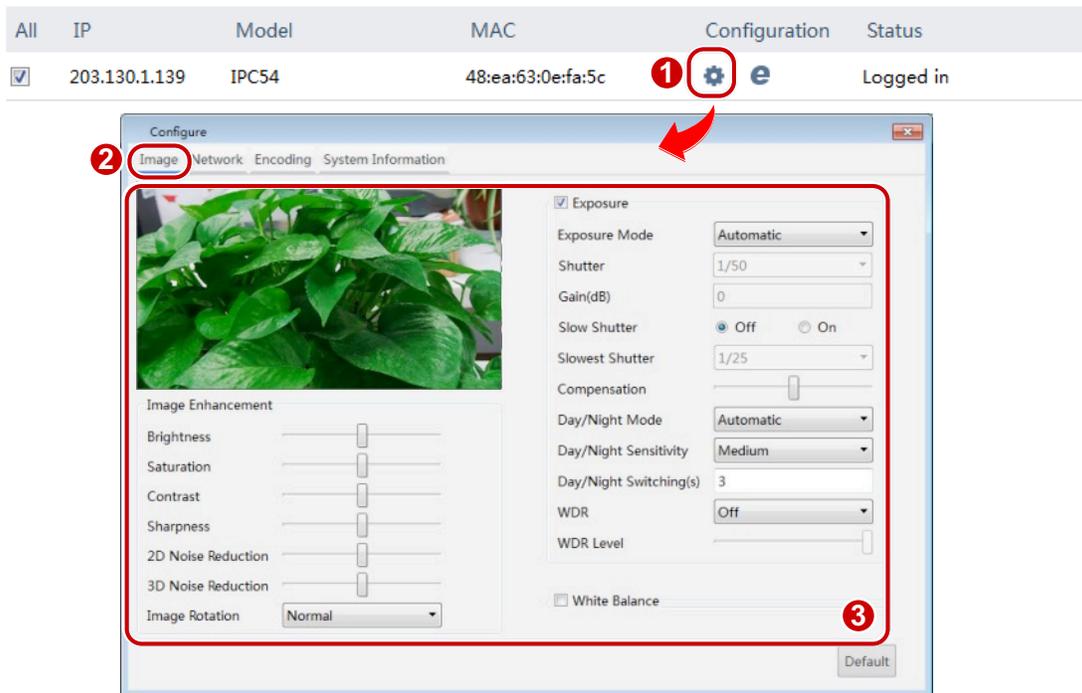


### NOTE!

- This function only applies to IPC.
- The image parameters that can be set may vary with IPC model. Please refer to the actual display for image parameters that can be set.

To set image parameters to achieve the best visual effects, perform the following steps:

1. Select the desired IPC that you have logged in to and then click . A dialog box is displayed.



2. On the **Image** tab, modify the settings as required. Major parameters are described in the table below.

Parameter	Description
Sharpness	Contrast of boundaries of objects in an image.
2D Noise Reduction	Reduce the noise of images. The function may cause image blurring.
3D Noise Reduction	Reduce the noise of images. The function may cause motion blur (or ghosting in some applications).
Image Rotation	<ul style="list-style-type: none"> <li>• Normal: No rotation.</li> <li>• Flip Vertical: Flip the image vertically.</li> <li>• Flip Horizontal: Flip the image horizontally.</li> <li>• 180°: Flip the image both vertically and horizontally simultaneously.</li> <li>• 90° CW: Rotate the image 90° clockwise. This option applies to corridor mode.</li> </ul>
Gain	Control image signals so that the IPC outputs standard video signals according to the light condition.
WDR	Enable WDR to distinguish the bright and dark areas in the same image.
White Balance	Adjust the red or blue offset of the image: <ul style="list-style-type: none"> <li>• Automatic: The IPC adjusts red and blue offset automatically according to the light condition. (The color tends to be blue).</li> <li>• Fine Tune: Allow you to adjust the red and blue offset manually.</li> <li>• Sodium Lamp: The IPC adjusts red and blue offset automatically according to the light condition (the color tends to be red).</li> </ul>
Red Offset	Make small adjustments to red gain in white balance.
Blue Offset	Make small adjustments to blue gain in white balance.

3. To reset the settings to the default values, click **Default**.

## Setting Network Parameters



### NOTE!

- This function only applies to IPC.
- The network parameters that can be set may vary with IPC model. Please refer to the actual display for network parameters that can be set.

To set network parameters including the IP obtainment mode and port numbers, perform the following steps:

1. Select the desired IPC that you have logged in to and then click . A dialog box is displayed.

All	IP	Model	MAC	Configuration	Status
<input checked="" type="checkbox"/>	203.130.1.139	IPC54	48:ea:63:0e:fa:5c		Logged in

The screenshot shows a 'Configure' dialog box with the following settings:

- Network Tab:**
  - IP Obtain Mode: Static IP Address
  - IP Address: 203 . 130 . 1 . 139
  - Subnet Mask: 255 . 255 . 255 . 0
  - Gateway: 203 . 130 . 1 . 1
  - MTU: 1500 [576 ~ 1500]
  - Port Type: Copper Port
  - Operating Mode: Auto-Negotiation
  - Port:
    - HTTPS Port: 443 [0 ~ 65535]
    - HTTP Port: 80 [0 ~ 65535]
- UNP:**
  - UNP Service:  Enable
  - Server Address: 0 . 0 . 0 . 0
  - Authenticate:  Yes  No
  - Username: [ ]
  - Password: [ ]
- DNS:**
  - Preferred DNS Server: 114 . 114 . 114 . 114
  - Alternate DNS Server: 114 . 114 . 115 . 115

The 'Save' button is highlighted with a red circle and the number 4.

2. Click the **Network** tab and then modify the settings as required.
3. Click **Save**.

## Setting Encoding Parameters



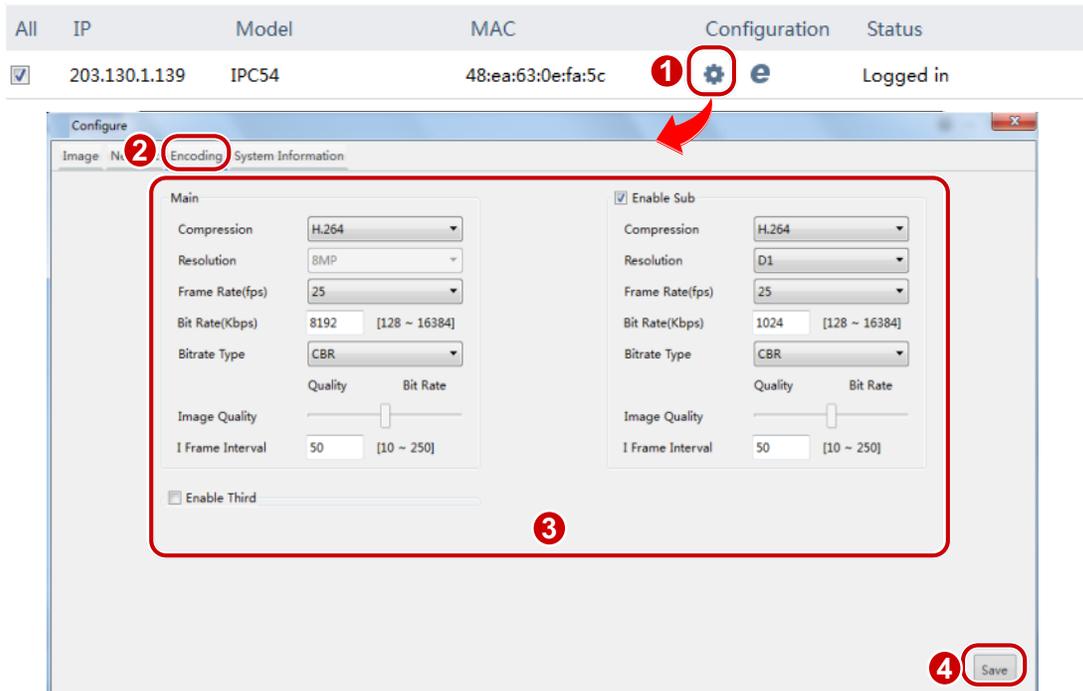
### NOTE!

- This function only applies to IPC.
- The encoding parameters that can be set may vary with IPC model. Please refer to the actual display for encoding parameters that can be set.

To set bit encoding parameters of an IPC and enable sub and third streams, perform the following steps:

## Set encoding parameters for a single IPC

1. Select the desired IPC that you have logged in to and then click .



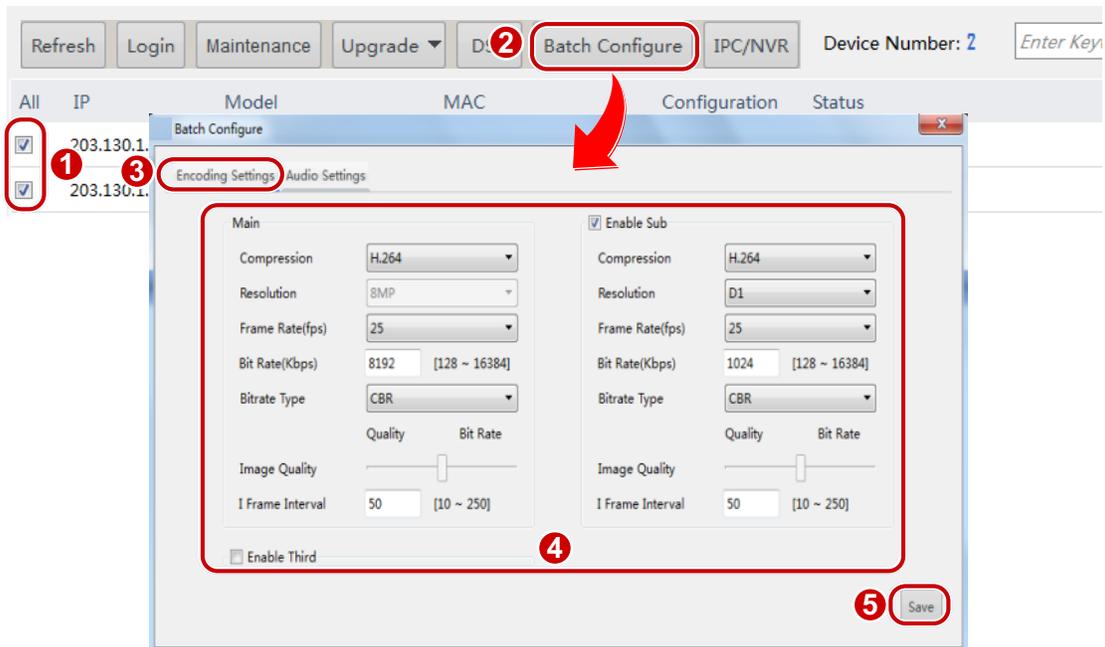
2. Click the **Encoding** tab and then modify the settings as required. Major parameters are described in the table below.

Parameter	Description
Bitrate Type	<ul style="list-style-type: none"> <li>• CBR: Constant Bit Rate, which means that the IPC transmits data at a constant data rate.</li> <li>• VBR: Variable Bit Rate, which means that the IPC adjusts the bit rate dynamically according to image quality.</li> </ul>
Frame Rate	<p>Frame rate for encoding images. Unit: FPS (frame per second).</p> <p><b>Note:</b> To ensure image quality, note that the frame rate should not be greater than the reciprocal of the shutter speed.</p>
Image Quality	<p>When <b>Bitrate Type</b> is <b>VBR</b>, you can move the slider to adjust quality level for images. Moving the slider toward <b>Bit Rate</b> decreases the bit rate and may affect image quality. Moving the slider toward <b>Quality</b> increases the bit rate and improves image quality.</p>

3. Click **Save**.

## Set encoding parameters for multiple IPCs

1. Select the desired IPCs that you have logged in to and then click **Batch Configure**. A dialog box is displayed.



2. Click the **Encoding** tab and then modify the settings as required. For descriptions about major parameters, see [Set encoding parameters for a single IPC](#).
3. Click **Save**.

## Setting OSD



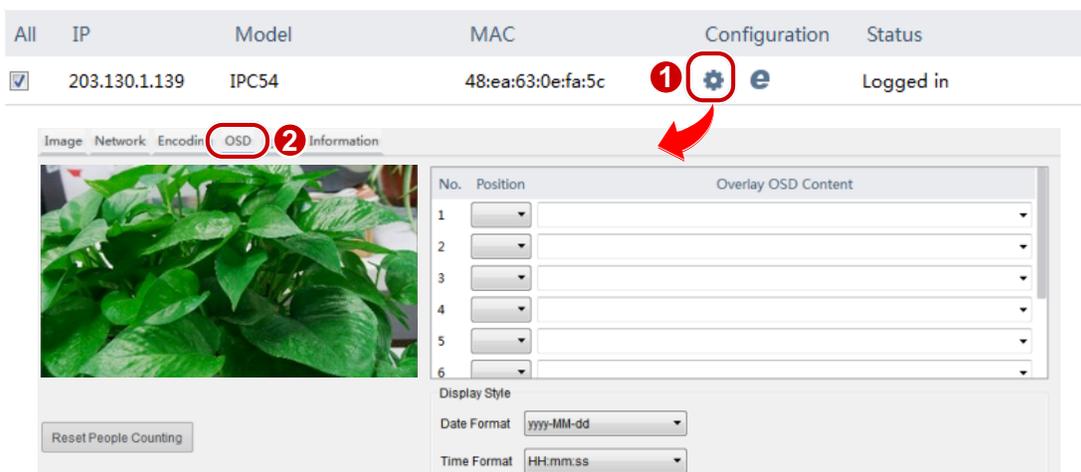
### NOTE!

- This function only applies to IPC.
- The OSD parameters that can be set may vary with IPC model. Please refer to the actual display for OSD parameters that can be set.

To set OSD of an IPC, perform the following steps:

### Set OSD for a single IPC

1. Select the desired IPC that you have logged in to and then click .



2. Click the **OSD** tab and then modify the settings as required.

### Set OSD for multiple IPCs

1. Select the desired IPCs that you have logged in to and then click **Batch Configure**. A dialog box is displayed.
2. Click the **OSD** tab and then modify the settings as required. For details, see [Set OSD for a single IPC](#).

## Setting Audio Parameters

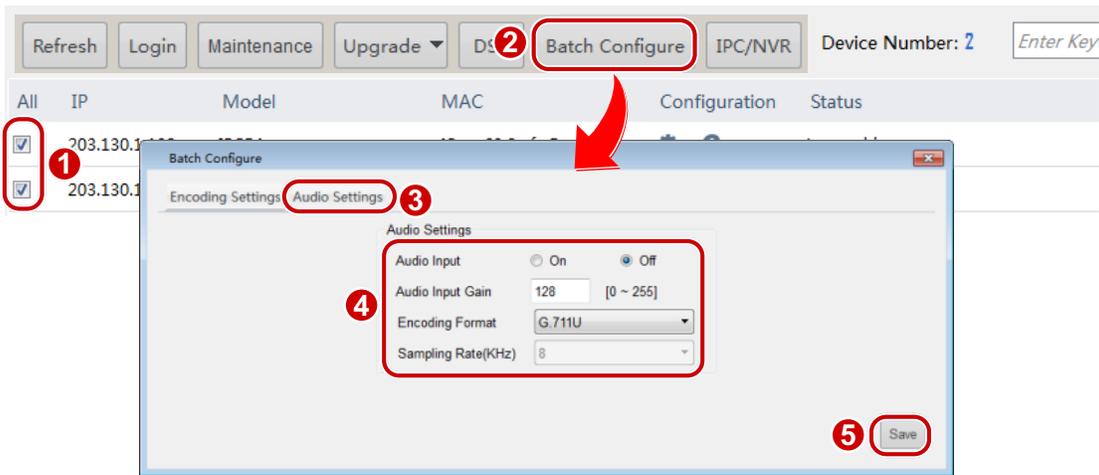


### NOTE!

- This function only applies to IPC.
- The audio parameters that can be set may vary with IPC model. Please refer to the actual display for audio parameters that can be set.

Audio parameters include audio compression and audio input settings. To set audio parameters, perform the following steps:

1. Select the desired IPC(s) that you have logged in to and then click **Batch Configure**. A dialog box is displayed.



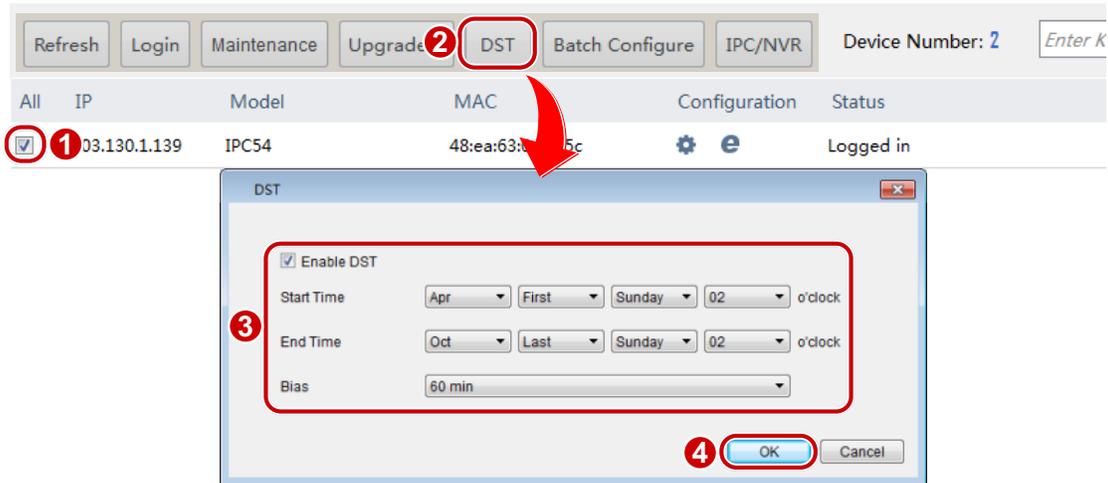
2. Click the **Audio Settings** tab and then modify the settings as required. Major parameters are described in the table below.

Parameter	Description
Audio Input	No audio data will be encoded when <b>Off</b> is selected. <b>Note:</b> It is recommended to select <b>Off</b> if you do not need audio. This can improve device performance to some extent.
Audio Input Gain	Audio signal amplification for sampling. The greater the gain, the greater the amplification.

3. Click **Save**.

## Setting DST

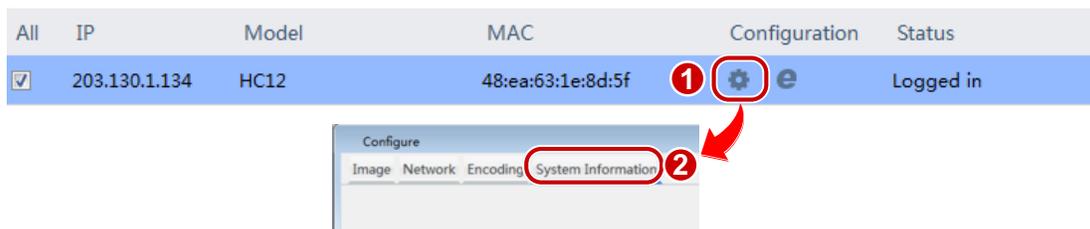
1. Select the desired device that you have logged in to and then click **DST**. A dialog box is displayed.



2. Select **Enable DST** and then set the start time, end time, and bias.
3. Click the **OK** button.

## Viewing Device Information

1. Select the desired device that you have logged in to and then click . A dialog box is displayed.
2. Click the **System Information** tab to view device information.



## Logging in to the Web Interface of a Device

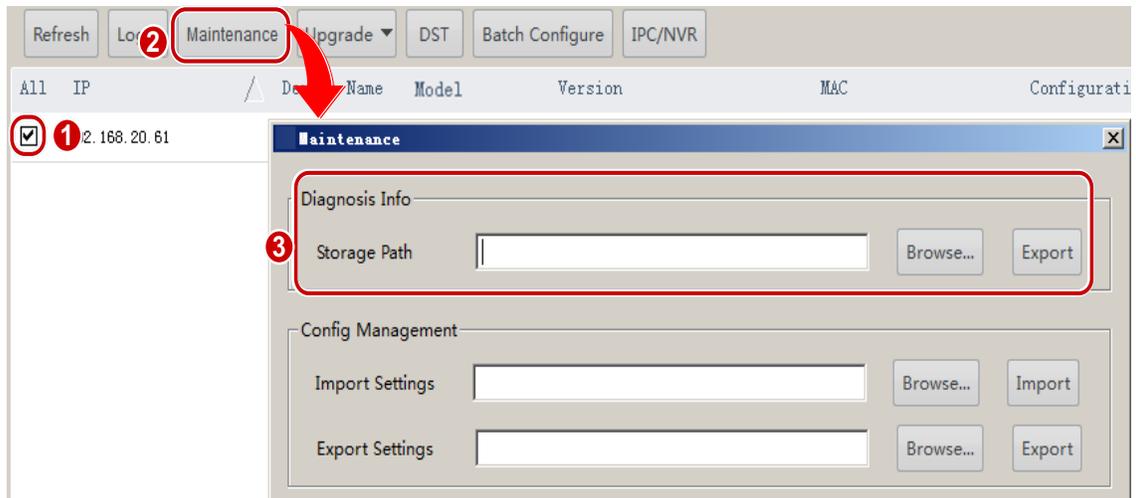
1. Select the desired device and then click .
2. On the login page that appears, enter the correct username and password to log in.

## Maintenance

### Diagnosis Information

To export device diagnosis information as a file to a specified local directory, perform the following steps:

1. Select the desired device(s) that you have logged in to and then click the **Maintenance** button. A dialog box is displayed.

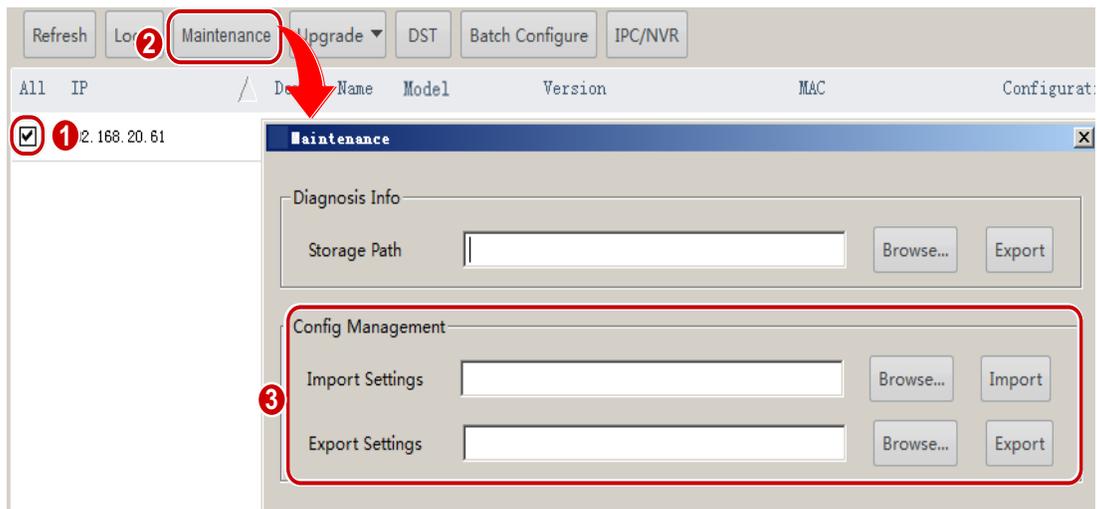


2. Enter the destination path in the **Storage Path** text box, or click **Browse** to select the destination folder in the dialog box.
3. Click the **Export** button.

## Importing/Exporting Configuration

To import a local configuration file to a device that you have logged in to and use the file to replace the current configuration file, or to export the configuration file of a device to a local folder, perform the following steps:

1. Select the desired device(s) that you have logged in to and then click the **Maintenance** button. A dialog box is displayed.



2. Enter the path in the text box or click **Browse** to select the configuration file to import or the path to export configuration, and then click **Import** or **Export** as needed.



### NOTE!

Importing a configuration file will cause the device to restart.

# Upgrade

The software offers two upgrade methods: local upgrade and online upgrade. You must log in before upgrading a device.

## Local Upgrade

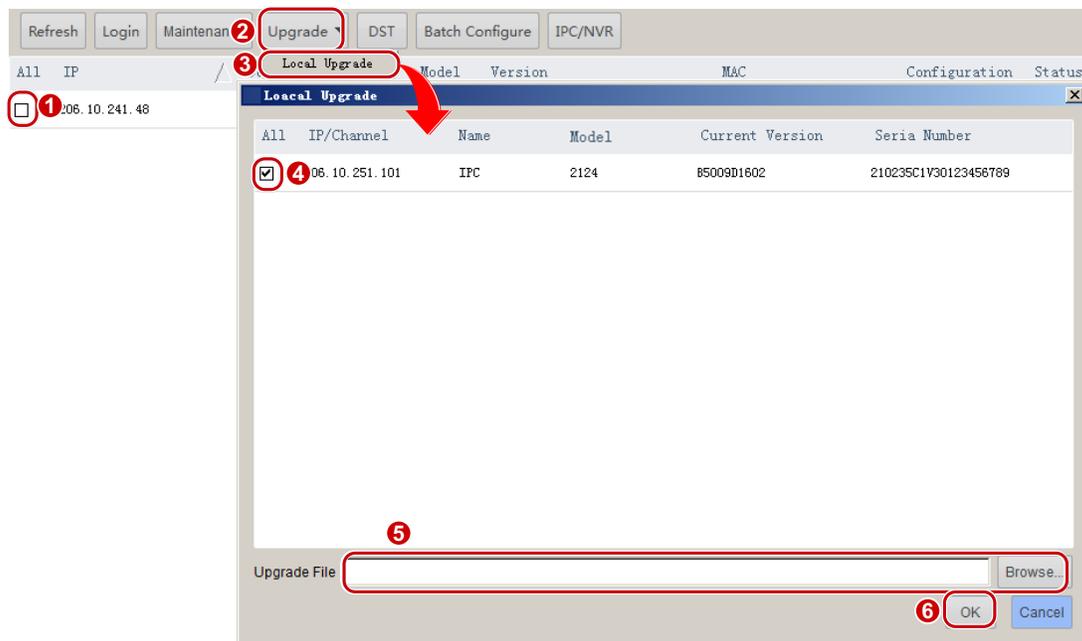


### NOTE!

- The upgrade version must be correct for the device. Otherwise, exceptions may occur.
- For an IPC, the upgrade package (ZIP file) must contain the complete upgrade files.
- For an NVR, the upgrade file is in .BIN format.
- Please maintain a proper power supply during upgrade. The device will restart after the upgrade is completed.

To upgrade a device using a local upgrade file, perform the following steps:

1. Select the desired device, click the **Upgrade** button, and then click **Local Upgrade**. A dialog box is displayed.



2. Enter the path to the upgrade file in the **Upgrade File** text box, or click **Browse** to select the upgrade file.
3. Click the **OK** button.



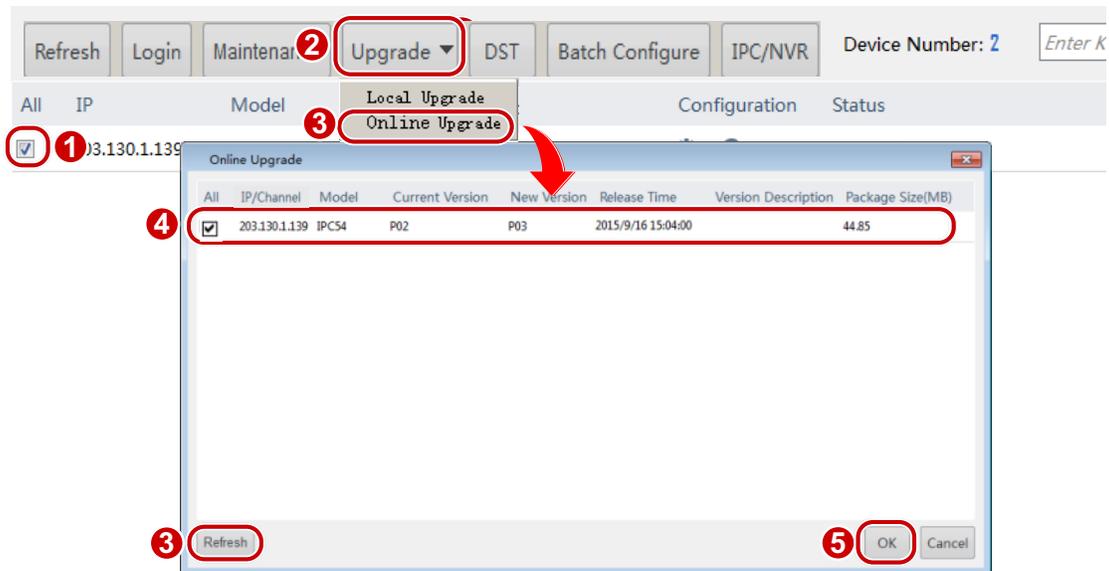
### NOTE!

The software supports upgrading channels under an NVR in batches. The IP address and channel number are displayed, for example, 206.10.251.130\_Channel12. You need to select the channels to upgrade.

## Online Upgrade

With Internet connection, online upgrade will check the device firmware version, download upgrade files and upgrade the device. Perform the following steps to upgrade devices:

1. Select the desired device(s), click the **Upgrade** button, and then click **Online Upgrade**. A dialog box is displayed.
2. Click **Refresh** to check for available upgrades.
3. Select the desired version and click the **OK** button.



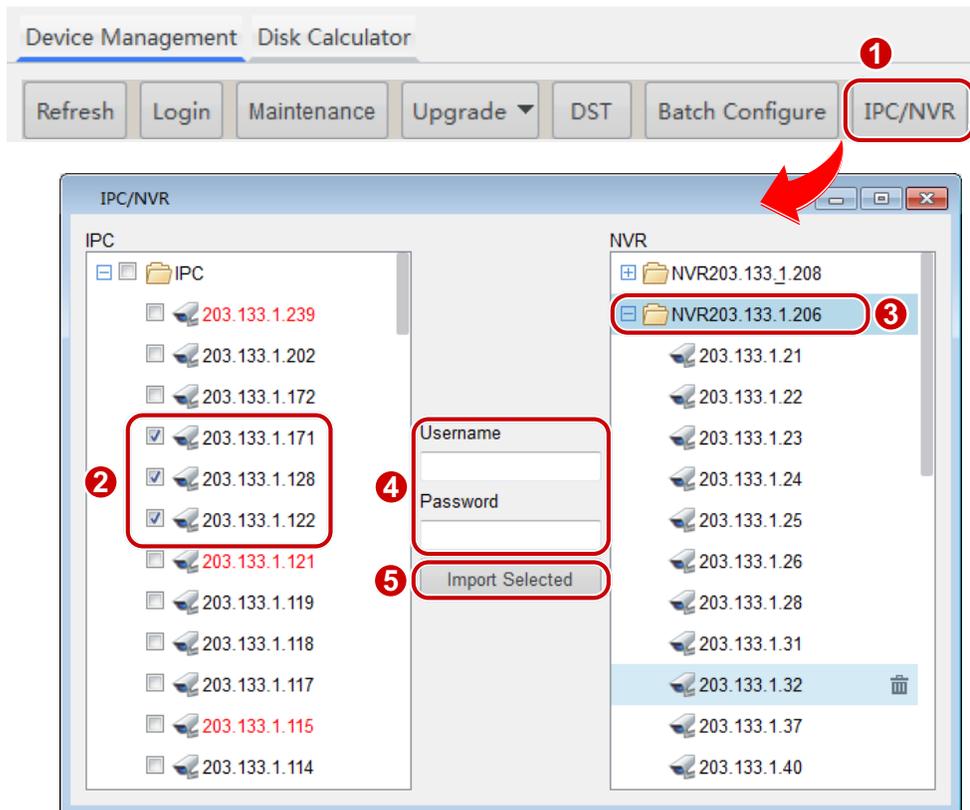
### NOTE!

The software supports upgrading channels under an NVR. The IP address and channel number are displayed, for example, 206.10.251.130\_Channel12. You need to select the channels to upgrade.

## IP Camera/NVR Management

In IP camera/NVR management, you can import your IP cameras into the NVR or delete them from the NVR. To import your IP cameras, perform the following steps:

1. Select the desired NVR which should be logged in, click **IPC/NVR**. A dialog box is displayed.



2. Select the desired IP camera(s) and the target NVR.
3. Enter the username and password for the camera(s) and click **Import Selected**.



### NOTE!

- The imported camera(s) will be colored in red under the IP camera list
- To delete any imported camera from NVR, click the  button right by the camera.

## Exporting Device Information

To export device information (including device's IP address and model) to a local directory, perform the following steps:

1. Select the desired camera in the device management window.
2. Click , select a local path in the pop-up dialog box and then click **Save**.



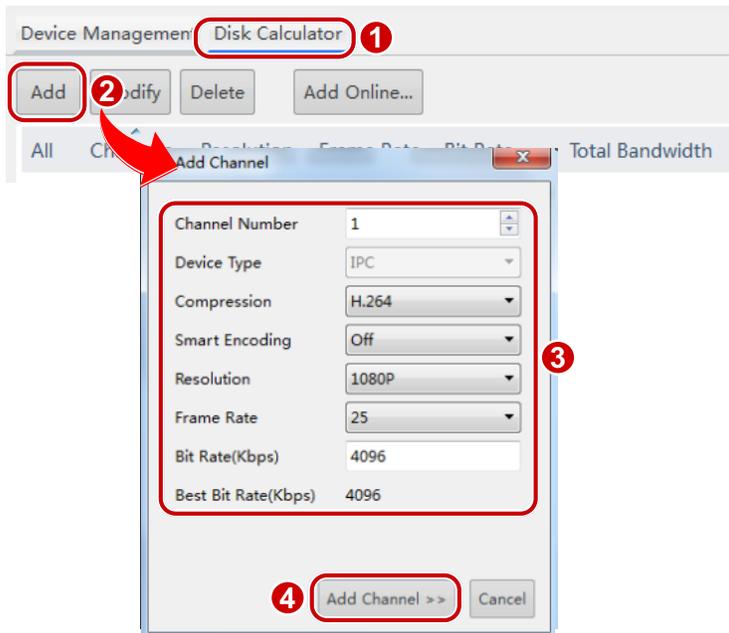
## 2 Recording Space Calculation

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### Adding a Channel

#### Adding a Channel Manually

1. Click the **Disk Calculator** tab and then click the **Add** button. A dialog box is displayed.



2. Enter the number of channels, select the compression, Smart Encoding, resolution, and frame rate, and then enter the bit rate.
3. Click the **Add Channel** button.



#### NOTE!

- The total bandwidth is equal to the bit rate multiplied by the channel number.
- After the device is added successfully, the **Channels** in the list is displayed in "Channel number(Device type)" format. For example, **5(IPC)** means the device type is IPC and there are five IPC channels.

### Adding Online Devices

1. Click the **Disk Calculator** tab and then click the **Add Online** button. A dialog box is displayed.
2. Select the online device (The system supports adding IPCs only) and then click the **Add Channels** button.
- If you have logged in to the device, click the **Add Channels** button and then the device is added successfully.

- If you haven't logged in to the device, log in to the device first and then click the **Add Channels** button.



## NOTE!

You can select multiple devices and then click the **Add Channels** button to add all the channels of the **selected devices** to the channel list.

## Configuring Channels

### Modifying Channels

1. Click the **Disk Calculator** tab, select the desired channel(s) that have been added, and then click the **Modify** button. A dialog box is displayed.

The screenshot shows the 'Device Management' interface with the 'Disk Calculator' tab selected. A table lists channels with columns for 'All', 'Channels', 'Resolution', 'Frame Rate', 'Bit Rate', and 'Total Bandwidth'. The first channel is '1(IPC)' with a resolution of '1080P', frame rate of '25 fps', bit rate of '4096 Kbps', and total bandwidth of '4096 Kbps'. A 'Modify' button is circled in red. A dialog box titled 'Modify Channel' is open, showing fields for 'Channel Number' (1), 'Device Type' (IPC), 'Compression' (H.264), 'Smart Encoding' (Basic Mode), 'Resolution' (1080P), 'Frame Rate' (20), 'Bit Rate(Kbps)' (3072), and 'Best Bit Rates(Kbps)' (3072). The 'OK' button is circled in red.

All	Channels	Resolution	Frame Rate	Bit Rate	Total Bandwidth
<input checked="" type="checkbox"/>	1(IPC)	1080P	25 fps	4096 Kbps	4096 Kbps

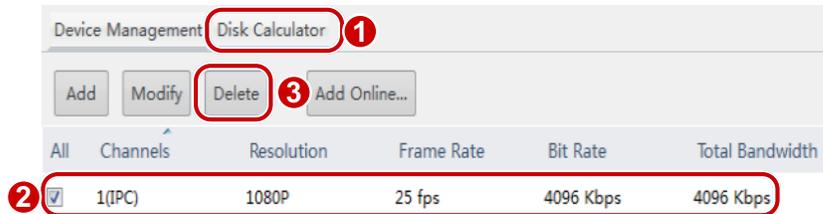
Modify Channel dialog box fields:

- Channel Number: 1
- Device Type: IPC
- Compression: H.264
- Smart Encoding: Basic Mode
- Resolution: 1080P
- Frame Rate: 20
- Bit Rate(Kbps): 3072
- Best Bit Rates(Kbps): 3072

2. Modify the number of the channels, compression, Smart Encoding, resolution, frame rate and bit rate as required, and then click the **OK** button.

### Deleting Channels

Click the **Disk Calculator** tab, select the desired channel(s) that has been added, and then click the **Delete** button.



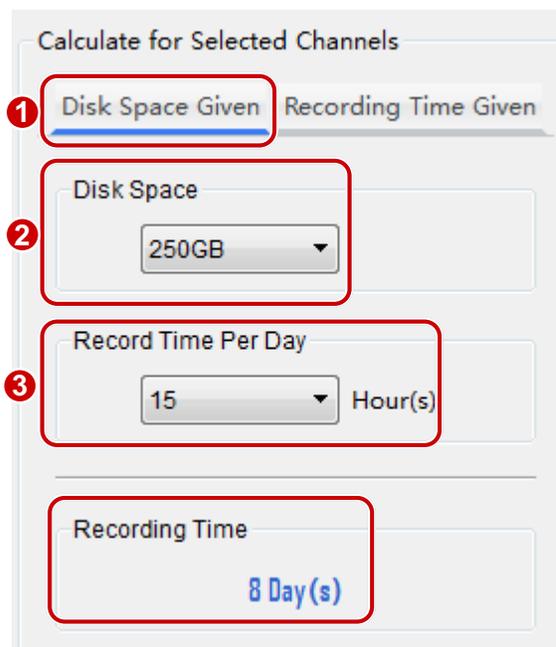
## Channel Storage Capacity Calculation

Select a channel and then calculate the allowed recording time based on the given disk space or calculate the required disk space based on the given recording time.

### Calculating Recording Time Based on Disk Space

Perform the following steps:

1. Click **Disk Space Given** on the **Disk Calculator** tab.
2. Select the total disk space of the device under **Disk Space** and then the daily recording hours under **Record Time Per Day**. Then the system calculates the allowed recording time automatically.



### Calculating Disk Space Based on Recording Time

Perform the following steps:

1. Click **Recording Time Given** on the **Disk Calculator** tab.
2. Select the required recording days under **Recording Time** and then the daily recording hours under **Record Time Per Day**. Choose the disk specifications under **Disk Space**, and the system calculates the required disk space and number of disk(s) automatically.

Disk Space Given    Recording Time Given **1**

Recording Time  
30 Day(s) **2**

Record Time Per Day  
24 Hour(s) **3**

---

Disk Space

**1266 GB**

- 2 TB    Available space 1863GB    HDD\*1
- 4 TB    Available space 3725GB    HDD\*0
- 6 TB    Available space 5588GB    HDD\*0
- 8 TB    Available space 7451GB    HDD\*0