

# **Device Management Software**

## **User Manual**

Manual Version: V1.15

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 version or model.
- 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:

- The device management software is referred to as the software for short.
- Devices that the software manages, such as IP camera (IPC) and network video recorder (NVR), are referred to as device.

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> .

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

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# 1 Device Management

The device management software is a tool kit that provides device management and recording storage calculation functions for different device models. The device management window is displayed after startup, and you need to add devices first.

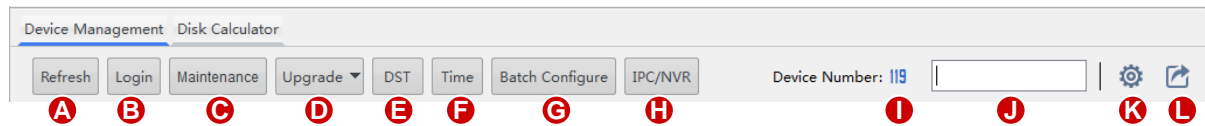
In the device management window, you can:

- 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 with normal network connection.
- The devices have completed initial configuration.

## Toolbar



No.	Description
A	Search devices. See <a href="#">Multicast Search</a> .
B	Log in to a device. See <a href="#">Log In to Device</a> .
C	Export diagnosis info, import or export device configurations.
D	Upgrade devices. See <a href="#">Upgrade</a> .
E	Set Daylight Saving Time. See <a href="#">Set DST</a> .
F	Set device time and time zone. See <a href="#">Set Time Zone and Time</a> .
G	Batch configure devices.
H	Add/remove IPCs under an NVR. See <a href="#">IP Camera/NVR Management</a> .
I	Number of devices in the list.
J	Enter a keyword to filter the list. See <a href="#">Filter Device List</a> .
K	Set search mode and titles to display on the list. See <a href="#">Search Devices</a> and <a href="#">Customize Device List</a> .
L	See <a href="#">Export Device Info</a> .

## Search Devices

Two search modes available:

- Multicast: Searches devices in a LAN.
- Search by IP Segment: Searches devices (ONVIF compliant) in a specified network segment.



### NOTE!

"admin" is the default username and password for all the discovered devices.

## Multicast Search

Click **Refresh** on the toolbar (see [Toolbar](#)). The software automatically searches for online devices in the interconnected network and adds the discovered devices to the device list.




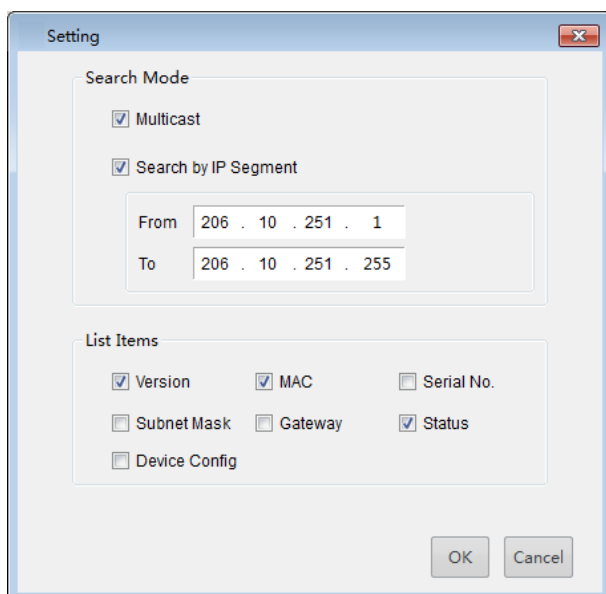
### NOTE!

The software searches devices by multicast by default. To search by IP segment, see [IP Segment Search](#).

## IP Segment Search

Search devices in a specified network segment.

1. Click  on the tool bar. A dialog box is displayed.



2. Select **Search by IP Segment**.
3. Set the IP segment to search and then click **OK**.
4. Click **Refresh** on the toolbar (see [Toolbar](#)). The discovered devices are listed.

## Change Device Password

The default password is only intended for the first login. We strongly suggest you set a strong password.



### NOTE!

The software can only change the admin password.

1. Select the device and then right-click.
2. Click **Change Password** on the pop-up menu. A dialog box is displayed.

Change Password

Username: admin

Old Password: ●●●●●●

New Password: ●●●●●●●●

Confirm: ●●●●●●●●  Show Password

OK Cancel

3. Enter the old password, new password and then confirm.
4. Click **OK**.

## Change Device Name

The names of the discovered devices are default and can be changed for easy management.

1. Double-click the device. A dialog box is displayed.

Rename Device

Old Device Name: IPC

New Device Name: Cam 1

Username: admin

Password: ●●●●●●●●

OK Cancel

2. Rename the device as needed and click **OK**.

## Log In to Device

1. Select the device and then click **Login** on the toolbar (see [Toolbar](#)). A dialog box is displayed.

A login dialog box titled "Login" with a close button (X) in the top right corner. It contains two input fields: "Username" with the text "admin" and "Password" with seven black dots. Below the fields is a note: "Note: Please log in first." At the bottom right are two buttons: "OK" and "Cancel".

2. Enter the correct username and password of the device, and then click **OK**.
3. If the device you want to log in is not in the list, click **Login**, enter the device's IP address, username and password.

A login dialog box titled "Login" with a close button (X) in the top right corner. It contains three input fields: "IP Address" with a dotted pattern, "Username" with the text "admin", and "Password" with seven black dots. Below the fields is a note: "Note: Please log in first." At the bottom right are two buttons: "OK" and "Cancel".

## Select Device

Select a device by selecting the check box in the first column of the list.

To select multiple devices:

- Select devices one by one.
- Click **All** to select all.
- Click to select devices while holding down **<Ctrl>**.
- Click to select devices while holding down **<Shift>**.
- Drag the mouse while holding down the left button.

## Filter Device List

Filter the list by entering a keyword contained in the IP or model of the desired devices.

A screenshot of a "Device Management" interface. At the top, there are several buttons: "Refresh", "Login", "Maintenance", "Upgrade", "DST", "Time", "Batch Configure", and "IPC/NVR". To the right, it says "Device Number: 2" followed by a search input field containing "133". Below this is a table with columns: "All", "IP", "Device Name", "Model", "Version", "MAC", "Configuration", and "Status".

All	IP	Device Name	Model	Version	MAC	Configuration	Status
<input type="checkbox"/>	206.10.251.133	NVR	NVR		48:ea:63:2b:7e:0a		Logged in
<input checked="" type="checkbox"/>	206.10.252.133	IPC	IPC		48:ea:63:37:69:a3		Not logged in



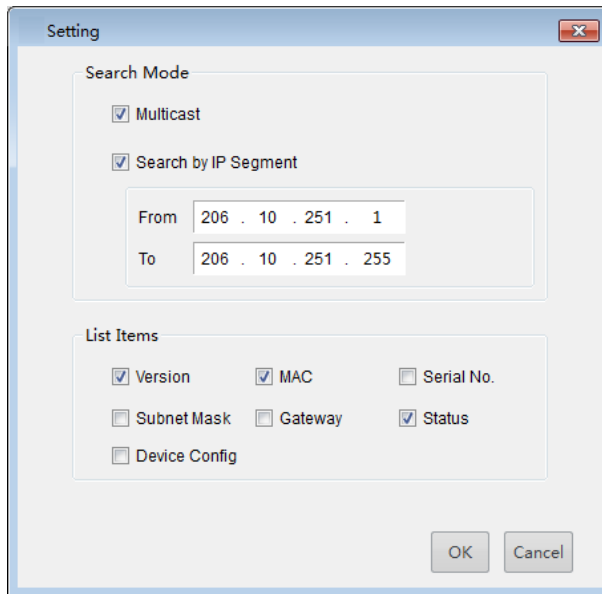
## Sort Device List

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

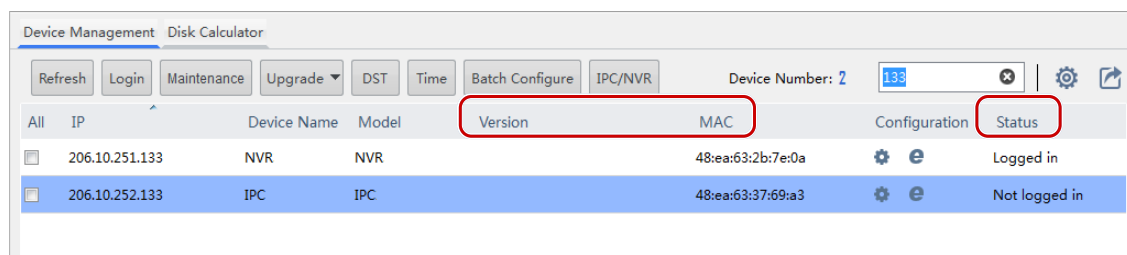
## Customize Device List

Select titles to display on the device list.

1. Click  on the toolbar (see [Toolbar](#)). A dialog box is displayed.



2. Select items to display.
3. Click **OK**.



## Configure Device

### Modify Device Address

Modify device address info, including IP address, subnet mask or default gateway.

#### Modify one device address

1. Select the device and then right-click. Click **Modify Network Address** on the pop-up menu. A dialog box is displayed.

Modify Network Address

IP Address: 206 . 10 . 252 . 133

Subnet Mask: 255 . 255 . 0 . 0

Gateway: 206 . 10 . 0 . 1

Username: admin

Password: ●●●●●●●●

OK Cancel

2. Modify the settings and then click **OK**.

### Batch modify device addresses

1. Select devices and then right-click. Click **Modify Network Address** on the pop-up menu. A dialog box is displayed.

Batch Modify Network Addresses

IP Address: 206 . 10 . 251 . 133 ~ 206 . 10 . 251 . 134

Subnet Mask: 255 . 255 . 255 . 0

Gateway: 206 . 10 . 251 . 1

IP(old)	IP(new)	Subnet Mask	Gateway	Username	Password	Op
206.10.251.133	206.10.251.133	255.255.255.0	206.10.251.1	admin	123456	
206.10.252.133	206.10.251.134	255.255.255.0	206.10.251.1	admin	123456	

OK Cancel

2. Enter the start IP address. The software will automatically complete the end IP address, subnet mask and gateway based on the start IP address and the number of devices selected.

3. Click **OK**.

### Restart Device

Select the device and then right-click. Click **Restart Device** on the pop-up menu. The device will restart after you confirm the operation.


## Set Image Parameters

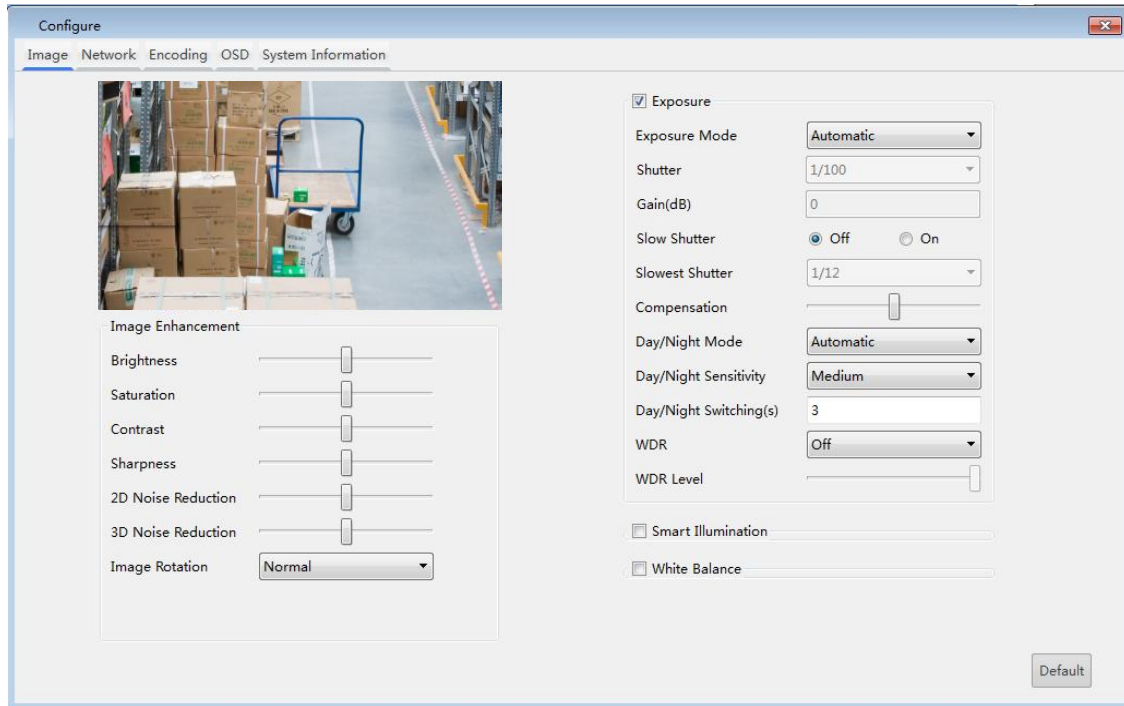


### NOTE!

- This function only applies to IPC. You need to log in first.
- Image parameters that can be set may vary with IPC model and version.

Set image parameters to achieve the best visual effects.

1. Select the IPC and then click  under **Configuration**. 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.

Parameter	Description
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**.


## Set Network Parameters



### NOTE!

- This function only applies to IPC. You need to log in first.
- The network parameters that can be set may vary with IPC model and version.

Set network parameters including IP obtainment mode, port number subnet mask, etc.

1. Select the IPC and then click  under **Configuration**. A dialog box is displayed.
2. Click the **Network** tab and then modify the settings as required.

3. Click **Save**.

## Set Encoding Parameters



### NOTE!

- This function only applies to IPC. You need to log in first.
- The encoding parameters that can be set may vary with IPC model and version.

### Set encoding parameters for one IPC

1. Select the IPC and then click under **Configuration**. A dialog box is displayed.

The screenshot shows a 'Configure' dialog box with three tabs: 'Image', 'Network', and 'Encoding'. The 'Encoding' tab is active. It contains three sections of settings:

- Main:**
  - Compression: H.264
  - Resolution: 2560\*1440
  - Frame Rate(fps): 25
  - Bit Rate(Kbps): 6144 [128 ~ 16384]
  - Bitrate Type: CBR
  - Image Quality: Slider (Quality/Bit Rate)
  - I Frame Interval: 50 [10 ~ 250]
- Enable Sub:**
  - Compression: H.264
  - Resolution: D1
  - Frame Rate(fps): 25
  - Bit Rate(Kbps): 1024 [128 ~ 16384]
  - Bitrate Type: CBR
  - Image Quality: Slider (Quality/Bit Rate)
  - I Frame Interval: 50 [10 ~ 250]
- Enable Third:**
  - Compression: H.264
  - Resolution: CIF
  - Frame Rate(fps): 25
  - Bit Rate(Kbps): 128 [128 ~ 16384]
  - Bitrate Type: VBR
  - Image Quality: Slider (Quality/Bit Rate)

A 'Save' button is located at the bottom right of the dialog box.

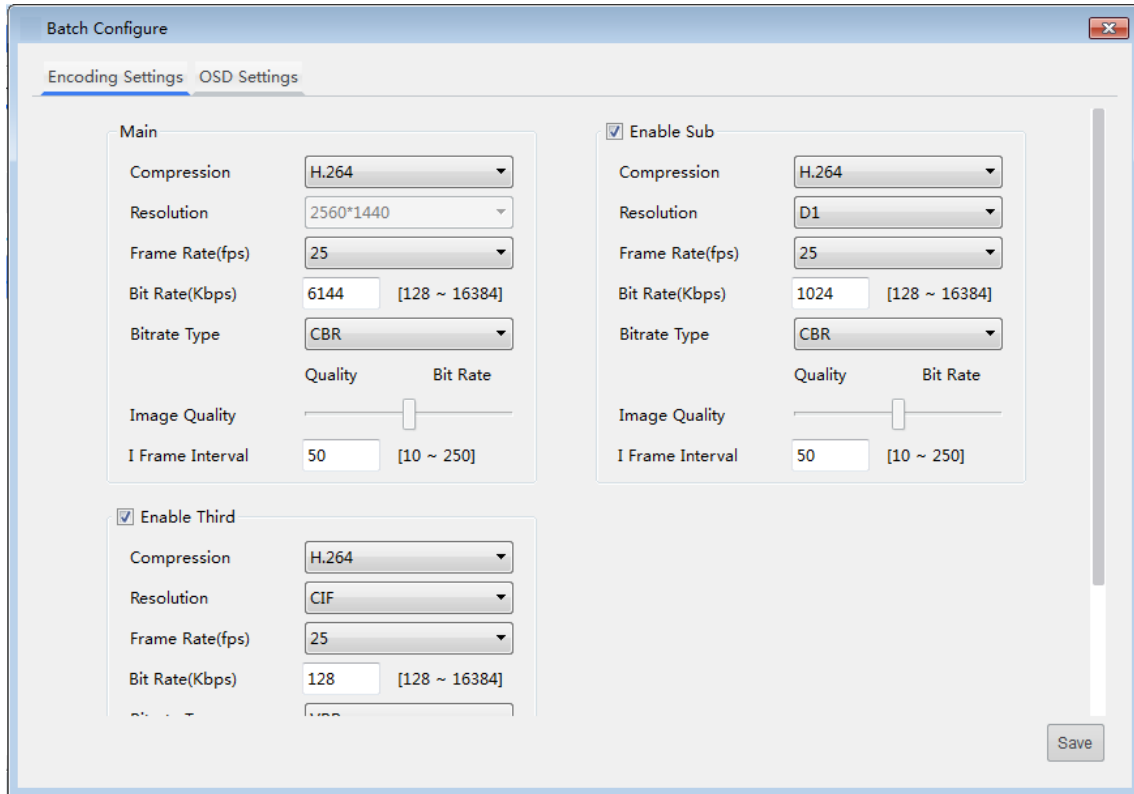
2. Click the **Encoding** tab and then modify the settings as required. Major parameters are described in the table below.

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 IPCs and then click **Batch Configure** on the toolbar (see [Toolbar](#)). 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 one IPC](#).
3. Click **Save**.


## Set OSD

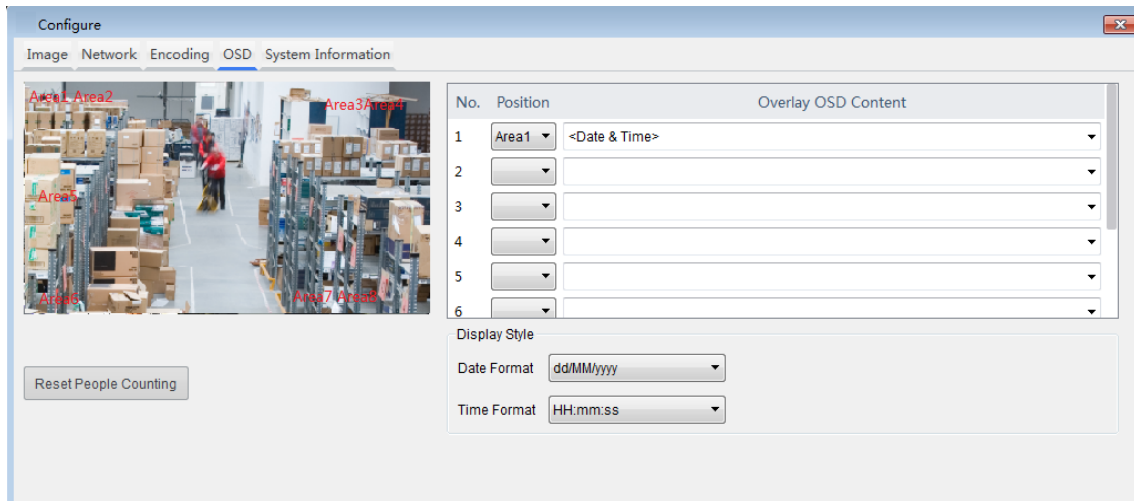


### NOTE!

- This function only applies to IPC. You need to log in first.
- The OSD parameters that can be set may vary with IPC model and version.

## Set OSD for one IPC

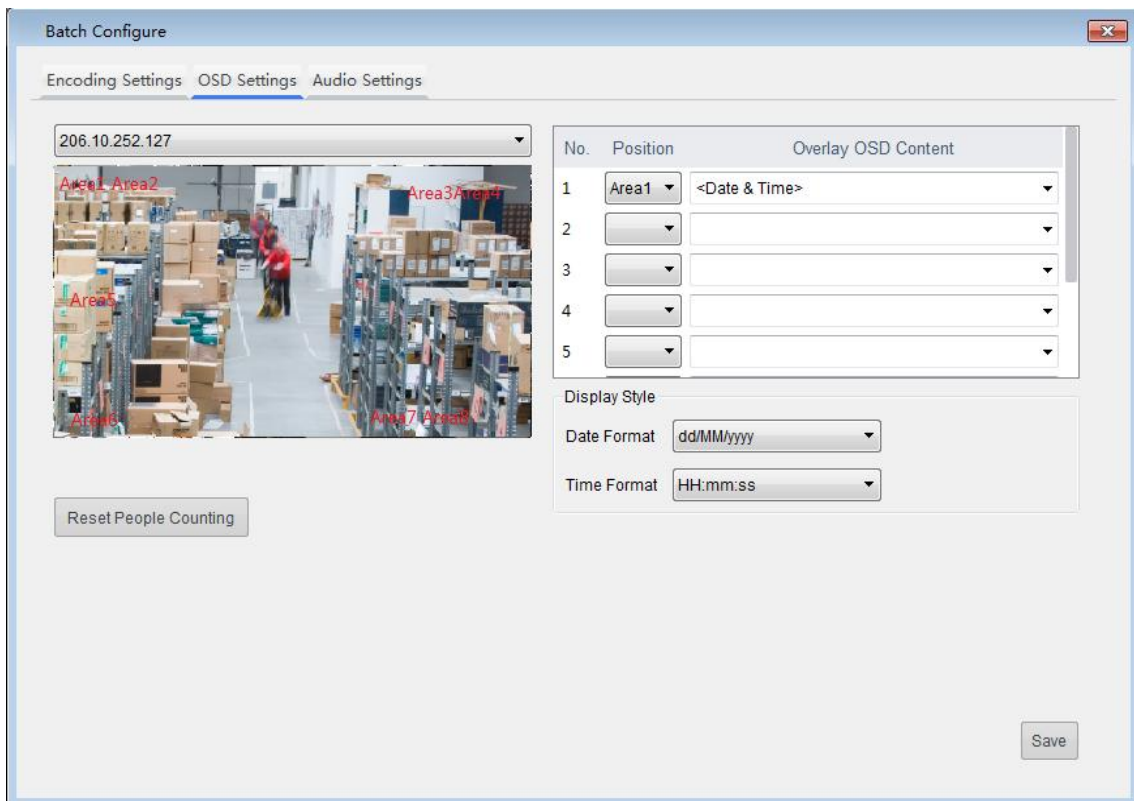
1. Select the IPC and then click  under **Configuration**. A dialog box is displayed.



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

### Set OSD for multiple IPCs

1. Select the IPCs and then click **Batch Configure** on the toolbar (see [Toolbar](#)). A dialog box is displayed.
2. Click the **OSD** tab and then modify the settings as required. For details, see [Set OSD for one IPC](#).



3. Click **Save**.

## Set Audio Parameters

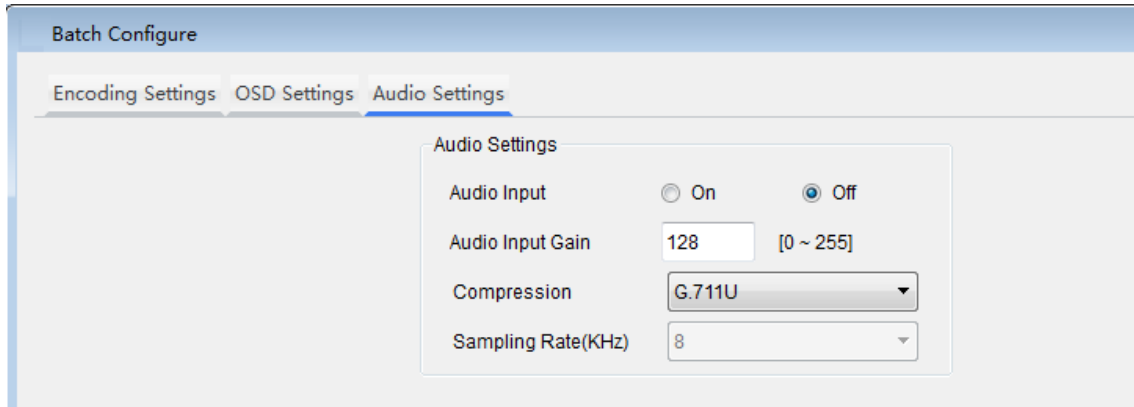


### NOTE!

- This function only applies to IPC. You need to log in first.
- The audio parameters that can be set may vary with IPC model and version.

Set audio parameters including audio compression and audio input settings.

1. Select the IPC(s) and then click **Batch Configure** on the toolbar (see [Toolbar](#)). A dialog box is displayed.



2. Click the **Audio Settings** tab and then modify the settings. 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**.

## Set DST

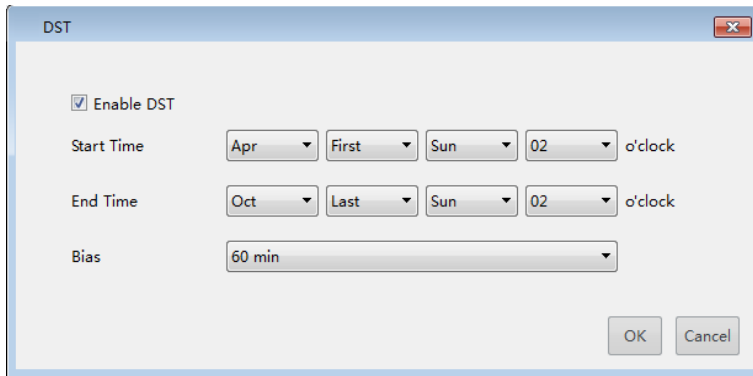


### NOTE!

This function only applies to IPC. You need to log in first.

1. Select the device and then click **DST** on the toolbar (see [Toolbar](#)). A dialog box is displayed.



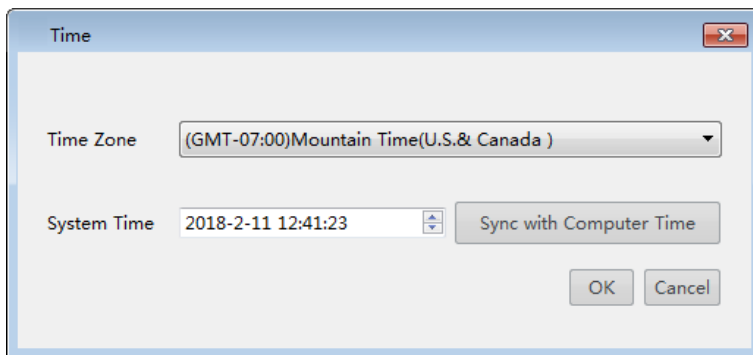


2. Select **Enable DST** and set the start time, end time, and bias.
3. Click **OK**.

## Set Time Zone and Time

Set time and time zone for device(s). You can set different device types (for example, IPC and NVR) at the same time. You need to log in first.


1. Select the device(s) and then click **Time** on the toolbar (see [Toolbar](#)). A dialog box is displayed.

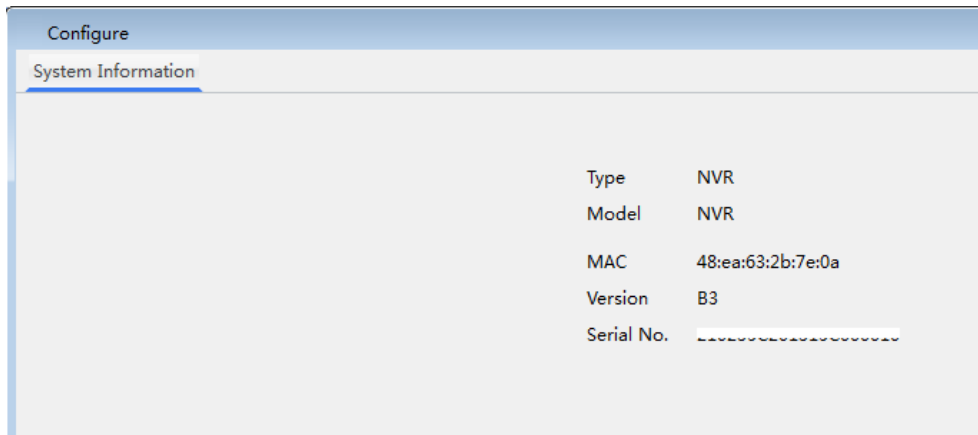


2. Set the time zone and system time. Clicking **Sync with Computer Time** will sync the system time with your computer time.
3. Click **OK** to complete setting the time and time zone of the selected device(s).


## View Device Info

View device information such as device type, model, MAC address, and version. You need to log in first.

1. Select the device and then click  under **Configuration**. A dialog box is displayed.
2. Click the **System Information** tab to view device information.



## Log in to the Web Interface of a Device

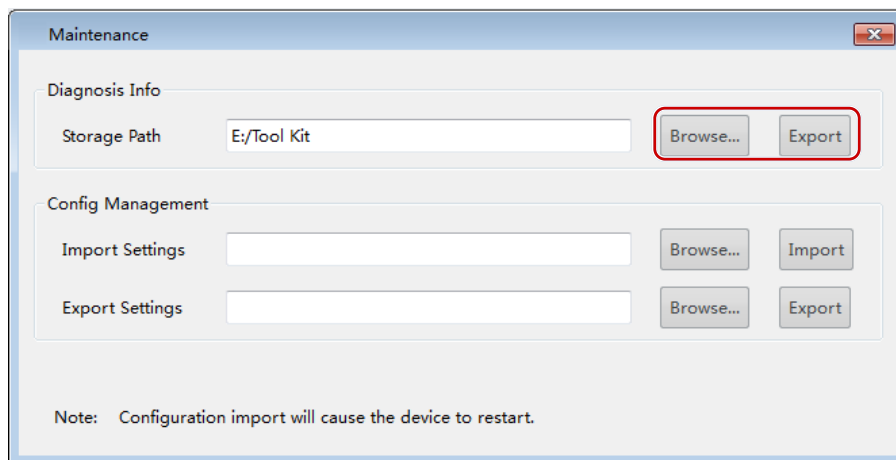
1. Select the device and then click  under **Configuration**.
2. The login page appears. Enter the correct username and password to log in.

## Maintenance

### Export Diagnosis Info

Export diagnosis info of device(s) to a specified location. You need to log in first.

1. Select the device(s) and then click **Maintenance** on the toolbar (see [Toolbar](#)). A dialog box is displayed.

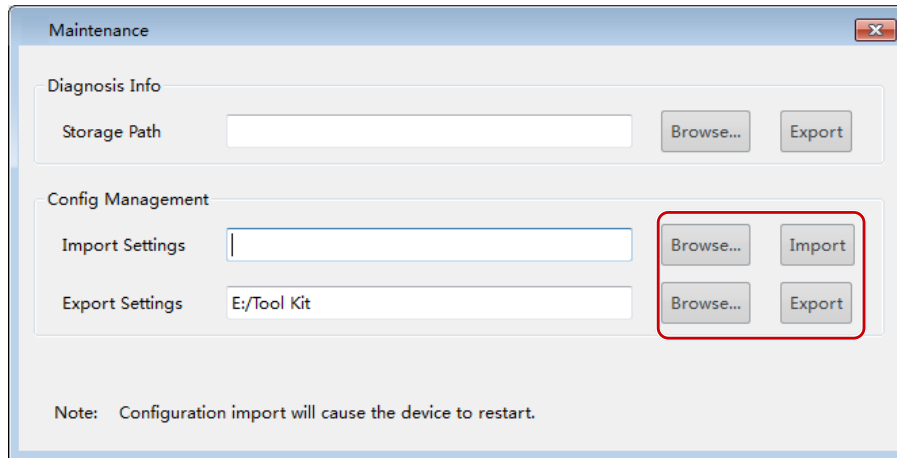


2. Click **Browse** to select the destination folder.
3. Click **Export**.

### Import/Export Configurations

Import a configuration file to restore configurations of a device, or export configurations of a device to save as a file so as to restore current configurations when necessary. You need to log in first.

1. Select the device(s) and then click **Maintenance** on the toolbar (see [Toolbar](#)). A dialog box is displayed.



2. To import configurations, click **Browse** to select the configuration file, and then click **Import**.
3. To export configurations, click **Browse** to specify the destination, and then click **Export**.



#### **NOTE!**

Importing a configuration file will cause the device to restart.

---

## Upgrade

Upgrade a device by local upgrade or online upgrade. You must log in first.

### Local Upgrade

Upgrade a device using a local upgrade version file:

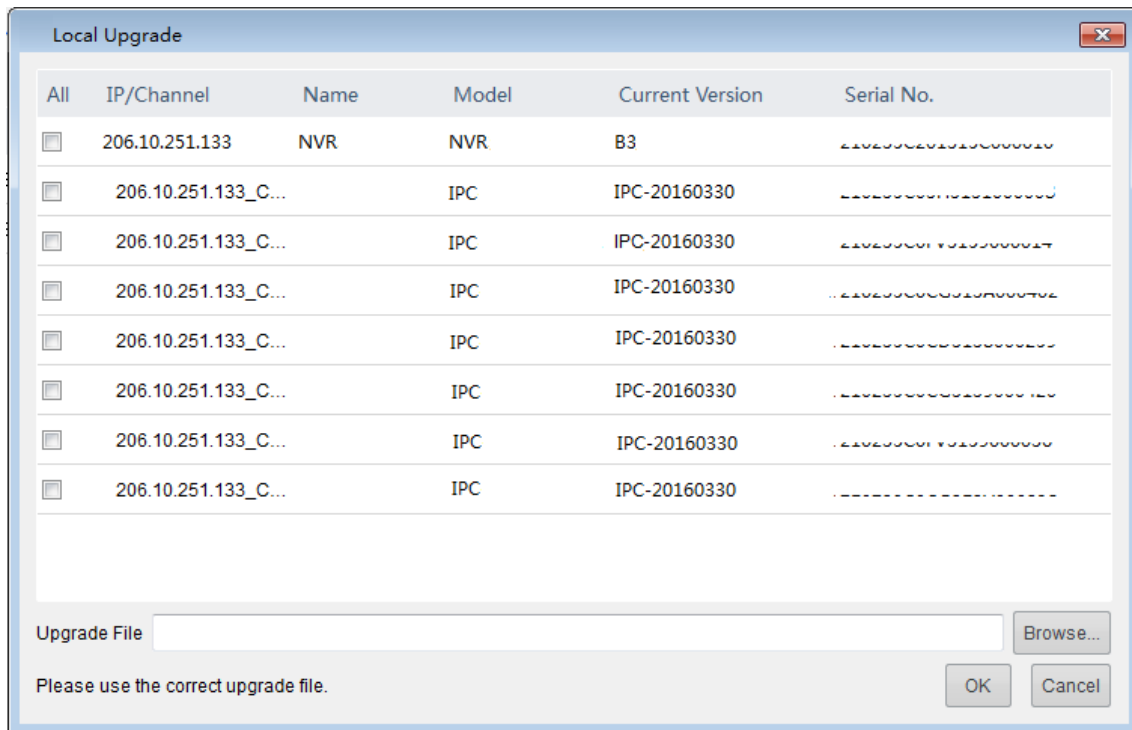
---



#### **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.
- 

1. Select the device, click **Upgrade** on the toolbar (see [Toolbar](#)) and then click **Local Upgrade**. A dialog box is displayed (take NVR as an example).

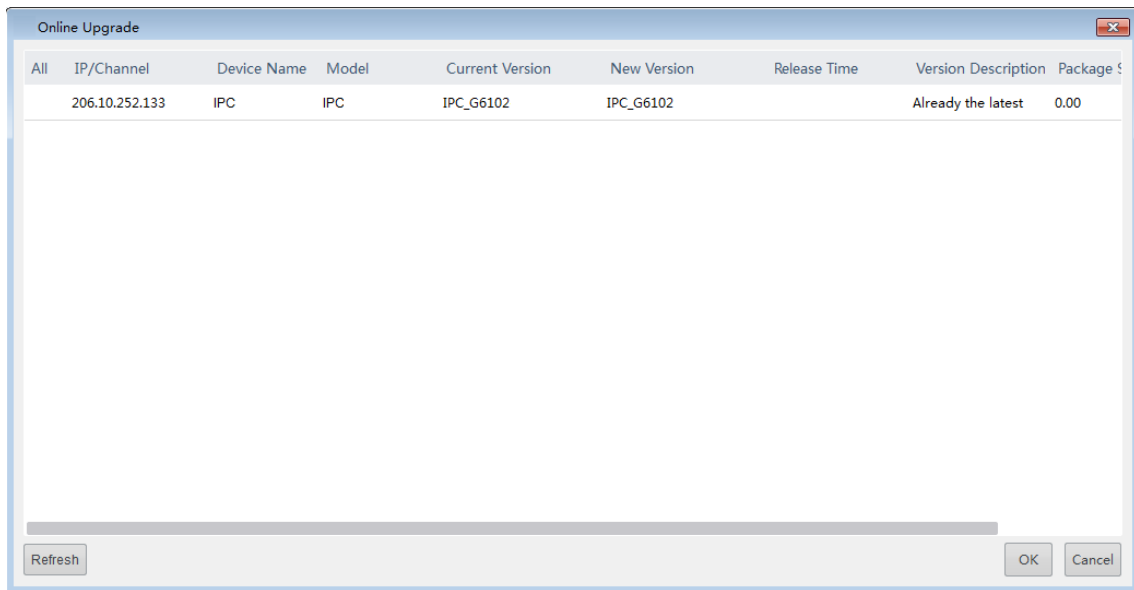


2. Select the device. Click **Browse** to select the upgrade version file.
3. To upgrade channel(s) under the NVR, select the channel(s) and then click **Browse** to select the upgrade version file.
4. Click **OK**.

## Online Upgrade

With Internet connection, online upgrade will check the device firmware version, download upgrade files and upgrade the device. You need to log in first.

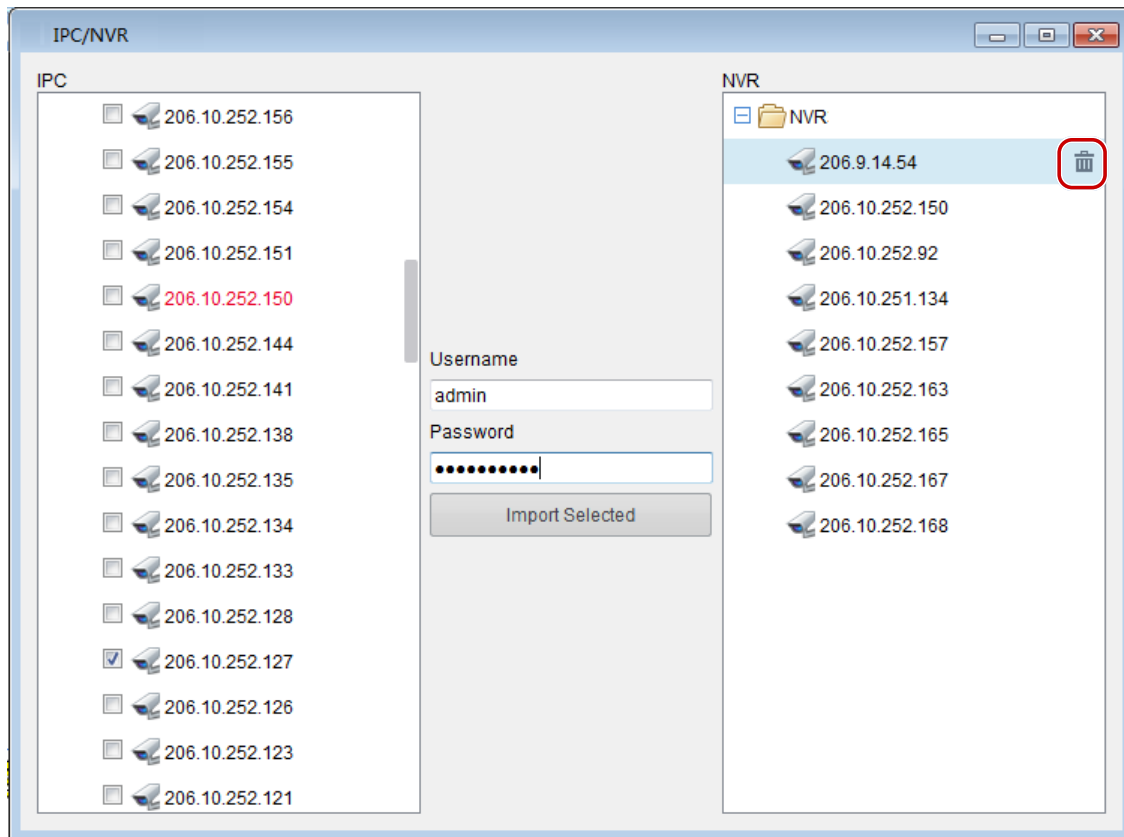
1. Select the device(s), click **Upgrade** on the toolbar (see [Toolbar](#)), and then click **Online Upgrade**. A dialog box is displayed.
2. Click **Refresh** to check for available upgrades.
3. Select the version(s) and click **OK**. The following example shows the current version is already the latest.




## IP Camera/NVR Management

Use the software to add/remove IP cameras to/from an NVR. You need to log in to the NVR first.

1. Select the NVR, and then click **IPC/NVR** on the toolbar (see [Toolbar](#)). A dialog box is displayed.




2. Select the IP camera(s) to import on the left. Red means the camera has been imported.
3. Click to select the NVR on the right.

4. Enter the username and password for the camera(s) and click **Import Selected**. The imported camera appears under the NVR on the right.
5. To delete a camera from an NVR, click .

## Export Device Info

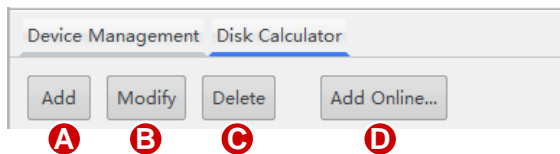
Export device info including device IP and model to a local directory.

1. Select device(s) and then click  on the toolbar (see [Toolbar](#)).
2. Specify the destination in the pop-up dialog box and then click **Save**.

# 2 Recording Space Calculation

Click **Disk Calculator** to calculate allowed recording time based on specified space or calculate required space for specified recoding time.

## Toolbar



No.	Description
A	Add certain number of channels with specified video settings such as compression mode, resolution, frame rate and bit rate for space calculation. See <a href="#">Add Channels</a> .
B	Modify channel settings.
C	Delete channels from the list.
D	Add discovered devices for space calculation based on their actual video settings. See <a href="#">Add Online Devices</a> .

## Add Channels

Add channels with specified settings (such as compression mode, resolution, frame rate and bit rate) to the list for calculation.

1. Click **Add** on the toolbar (see [Toolbar](#)). A dialog box is displayed.

2. Enter the number of channels to add and complete other settings.
3. Click **Add Channel**. The entry is added to the list, including number of channels(device type) and the set resolution, frame rate, bit rate and total bandwidth.

All	Channels	Resolution	Frame Rate	Bit Rate	Total Bandwidth
<input checked="" type="checkbox"/>	3(IPC)	1080P	25 fps	4096 Kbps	12288 Kbps



#### NOTE!

- Total bandwidth = Bit Rate \* Channels. For example,  $4096 * 3 = 12288$ .
- To modify the settings, click **Modify** on the toolbar (see [Toolbar](#)). To delete a channel, select the channel and then click **Delete** on the toolbar.

## Add Online Devices

Select discovered devices (IPCs only) and add to the list for calculation. You need to log in first.

1. Click **Add Online** on the toolbar (see [Toolbar](#)). All the discovered devices are listed.
2. Use keywords to filter the list if necessary.
3. Select devices (IPCs only) and then click **Add Channels**.
4. To modify settings of an added device, select the device and then click **Modify** on the toolbar.

## Calculate Storage Space

### Calculate Recording Time Based on Disk Space

Calculate recording time allowed for the selected channels based on available disk space.

1. Click **Disk Space Given**.
2. Select disk space available under **Disk Space**; for example, 250GB.
3. Select daily recording hours under **Record Time Per Day**; for example, 24 hours, which means video is recorded all day long.
4. The software calculates the allowed recording time automatically; for example, 1 day.

The screenshot shows the 'Disk Calculator' window with the 'Disk Space Given' tab selected. The left pane contains a table with two channels selected. The right pane shows the following settings:

- Disk Space:** 250GB
- Record Time Per Day:** 24 Hour(s)
- Recording Time:** 1 Day(s) (highlighted with a red box)

All	Channels	Resolution	Frame Rate	Bit Rate	Total Bandwidth
<input checked="" type="checkbox"/>	3(IPC)	1080P	25 fps	4096 Kbps	12288 Kbps
<input checked="" type="checkbox"/>	1(IPC)	2560*1440	25 fps	6144 Kbps	6144 Kbps

## Calculate Disk Space Based on Recording Time

Calculate required disk space for selected channels based on the number of days to record and daily recording time (how much hours to record every day).

1. Click **Recording Time Given**.
2. Select days under **Recording Time**; for example, 15 days.
3. Set the daily recording hours under **Record Time Per Day**; for example, 24 hours, which means video is recorded all day long.
4. The software automatically calculates the required disk space; for example, 2848 GB.
5. Choose disk specifications under **Disk Space**; for example, 2 TB.
6. The software automatically calculates how many 2TB disks are needed, for example, 2.

The screenshot shows the 'Disk Calculator' window with the 'Recording Time Given' tab selected. The left pane contains the same table as the previous screenshot. The right pane shows the following settings:

- Recording Time:** 15 Day(s)
- Record Time Per Day:** 24 Hour(s)
- Disk Space:** 2848 GB (highlighted with a red box)
- Disk Specifications:**
  - 2 TB Available space 1863GB HDD\*2
  - 4 TB Available space 3725GB HDD\*0
  - 6 TB Available space 5588GB HDD\*0
  - 8 TB Available space 7451GB HDD\*0

Note: Available space(GB) = Disk space(GB) \* (1000\*3) / (1024\*3)

All	Channels	Resolution	Frame Rate	Bit Rate	Total Bandwidth
<input checked="" type="checkbox"/>	3(IPC)	1080P	25 fps	4096 Kbps	12288 Kbps
<input checked="" type="checkbox"/>	1(IPC)	2560*1440	25 fps	6144 Kbps	6144 Kbps