

ConfigTool
(Windows Version)
User's Manual

V1.0.5

Cybersecurity Recommendations

Mandatory actions to be taken towards cybersecurity

1. Change Passwords and Use Strong Passwords:

The number one reason systems get "hacked" is due to having weak or default passwords. It is recommended to change default passwords immediately and choose a strong password whenever possible. A strong password should be made up of at least 8 characters and a combination of special characters, numbers, and upper and lower case letters.

2. Update Firmware

As is standard procedure in the tech-industry, we recommend keeping NVR, DVR, and IP camera firmware up-to-date to ensure the system is current with the latest security patches and fixes.

"Nice to have" recommendations to improve your network security

1. Change Passwords Regularly

Regularly change the credentials to your devices to help ensure that only authorized users are able to access the system.

2. Change Default HTTP and TCP Ports:

- Change default HTTP and TCP ports for systems. These are the two ports used to communicate and to view video feeds remotely.
- These ports can be changed to any set of numbers between 1025-65535. Avoiding the default ports reduces the risk of outsiders being able to guess which ports you are using.

3. Enable HTTPS/SSL:

Set up an SSL Certificate to enable HTTPS. This will encrypt all communication between your devices and recorder.

4. Enable IP Filter:

Enabling your IP filter will prevent everyone, except those with specified IP addresses, from accessing the system.

5. Change ONVIF Password:

On older IP Camera firmware, the ONVIF password does not change when you change the system's credentials. You will need to either update the camera's firmware to the latest revision or manually change the ONVIF password.

6. Forward Only Ports You Need:

- Only forward the HTTP and TCP ports that you need to use. Do not forward a huge range of numbers to the device. Do not DMZ the device's IP address.
- You do not need to forward any ports for individual cameras if they are all connected to a recorder on site; just the NVR is needed.

7. Disable Auto-Login on SmartPSS:

Those using SmartPSS to view their system and on a computer that is used by multiple people should disable auto-login. This adds a layer of security to prevent users without the appropriate credentials from accessing the system.

8. Use a Different Username and Password for SmartPSS:

In the event that your social media, bank, email, etc. account is compromised, you would not want

someone collecting those passwords and trying them out on your video surveillance system. Using a different username and password for your security system will make it more difficult for someone to guess their way into your system.

9. Limit Features of Guest Accounts:

If your system is set up for multiple users, ensure that each user only has rights to features and functions they need to use to perform their job.

10. UPnP:

- UPnP will automatically try to forward ports in your router or modem. Normally this would be a good thing. However, if your system automatically forwards the ports and you leave the credentials defaulted, you may end up with unwanted visitors.
- If you manually forwarded the HTTP and TCP ports in your router/modem, this feature should be turned off regardless. Disabling UPnP is recommended when the function is not used in real applications.

11. SNMP:

Disable SNMP if you are not using it. If you are using SNMP, you should do so only temporarily, for tracing and testing purposes only.

12. Multicast:

Multicast is used to share video streams between two recorders. Currently there are no known issues involving Multicast, but if you are not using this feature, deactivation can enhance your network security.

13. Check the Log:

If you suspect that someone has gained unauthorized access to your system, you can check the system log. The system log will show you which IP addresses were used to login to your system and what was accessed.

14. Physically Lock Down the Device:

Ideally, you want to prevent any unauthorized physical access to your system. The best way to achieve this is to install the recorder in a lockbox, locking server rack, or in a room that is behind a lock and key.

15. Connect IP Cameras to the PoE Ports on the Back of an NVR:

Cameras connected to the PoE ports on the back of an NVR are isolated from the outside world and cannot be accessed directly.

16. Isolate NVR and IP Camera Network

The network your NVR and IP camera resides on should not be the same network as your public computer network. This will prevent any visitors or unwanted guests from getting access to the same network the security system needs in order to function properly.

General

This user's manual (hereinafter referred to as "the Manual") introduces the functions and operations of the ConfigTool (hereinafter referred to be "the Tool").

Safety Instructions

The following categorized signal words with defined meaning might appear in the Manual.

Signal Words	Meaning
 DANGER	Indicates a high potential hazard which, if not avoided, will result in death or serious injury.
 WARNING	Indicates a medium or low potential hazard which, if not avoided, could result in slight or moderate injury.
 CAUTION	Indicates a potentially hazardous situation which, if not avoided, could result in property damage, data loss, lower performance, or unpredictable result.
 TIPS	Provides methods to help you solve a problem or save you time.
 NOTE	Provides additional information as the emphasis and supplement to the text.

Revision History

No.	Version	Revision Content	Release Time
1	V1.0.0	First Release.	February 26, 2016
2	V1.0.1	1. Add the description of uninstallation. 2. Modify the basic operations section.	November 18, 2016
3	V1.0.2	Modify the basic operations section.	March 31, 2017
4	V1.0.3	Add cybersecurity recommendations and online upgrade section.	September 30, 2017
5	V1.0.4	1. Add a notice box when click reset password in the reset password menu. 2. Add a notice box when click batch download and upgrade detect in the online upgrade menu. 3. Add the function to get back video password in the system settings menu.	April 23, 2018
6	V1.0.5	1. Update the pictures in "3.6 Configuring System Settings." 2. Change the notice box to the new one in "3.7 Local Upgrade", and "3.8 Online Upgrade " 3. Update the template management interface, and add the description of profile management in "Table 3-11" in "3.9 Configuring the Template."	March 6, 2019

Privacy Protection Notice

As the device user or data controller, you might collect personal data of others' such as face, fingerprints, car plate number, Email address, phone number, GPS and so on. You need to be in compliance with the local privacy protection laws and regulations to protect the legitimate rights and interests of other people by implementing measures include but not limited to: providing clear and visible identification to inform data subject the existence of surveillance area, providing data subject with proper access to their personal data and providing related contact.

About the Manual

- The Manual is for reference only. If there is inconsistency between the Manual and the actual product, the actual product shall govern.
- All the designs and software are subject to change without prior written notice. The product updates might cause some differences between the actual product and the Manual. Please contact the customer service for the latest program and supplementary documentation.

- There still might be deviation between the actual value of some data and the value provided, if there is any doubt or dispute, please refer to our final explanation.
- Please contact the supplier or customer service if there is any problem occurred when using the device.
- We are not liable for any loss caused by the operations that do not comply with the Manual.
- All trademarks, registered trademarks and the company names in the Manual are the properties of their respective owners.
- Please visit our website or contact your local service engineer for more information.
- If there is any uncertainty or controversy, please refer to our final explanation.

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**CAUTION**

Do not use the Tool with Device Diagnostic Tool, SmartPSS (Smart Professional Surveillance System) or DSS (Digital Surveillance System) at the same time; otherwise it might cause device search abnormalities.

The Tool provides the following functions to configure and maintain the devices such as IPC and NVR:

- Initialize the device.
- Modify device IP.
- Set the code parameters or video parameters for the device.
- Sync device time, reboot device, restore system default, modify device password and reset password.
- Upgrade device, including local upgrade and online upgrade.

2 Installation and Uninstallation

This chapter provides instructions to install and uninstall the Tool.

2.1 Installation

Make sure you have the Tool installation package, if not, contact the customer service. To install the Tool, do the following:

Step 1 Double-click the installation package.

The **Installer Language** dialog box is displayed.

Step 2 Select **English** as the installer language, and then click **OK**.

The **Welcome** screen is displayed. See Figure 2-1.



Figure 2-1

Step 3 Click **Next**.

The **Option** screen is displayed. See Figure 2-2.

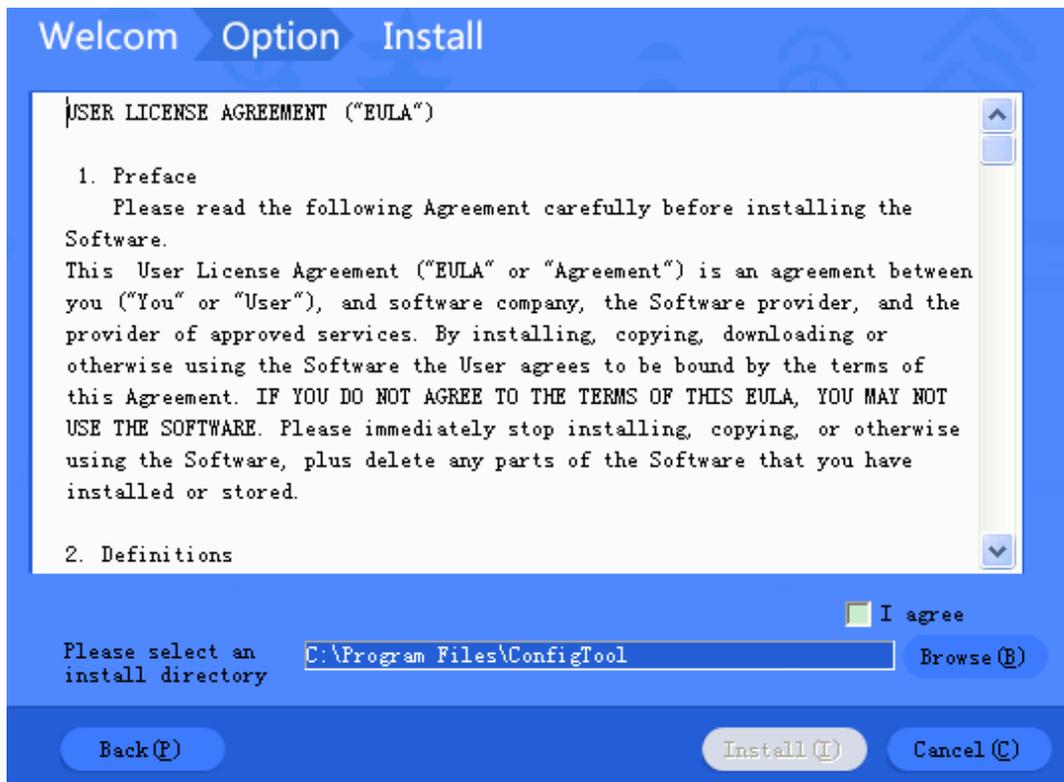


Figure 2-2

Step 4 Read the *User License Agreement*, click **I agree**, and then click **Browse** to choose the save path.

Step 5 Click **Install** to start installing the Tool.

After the installation is completed, the **Install** screen is displayed. See Figure 2-3.

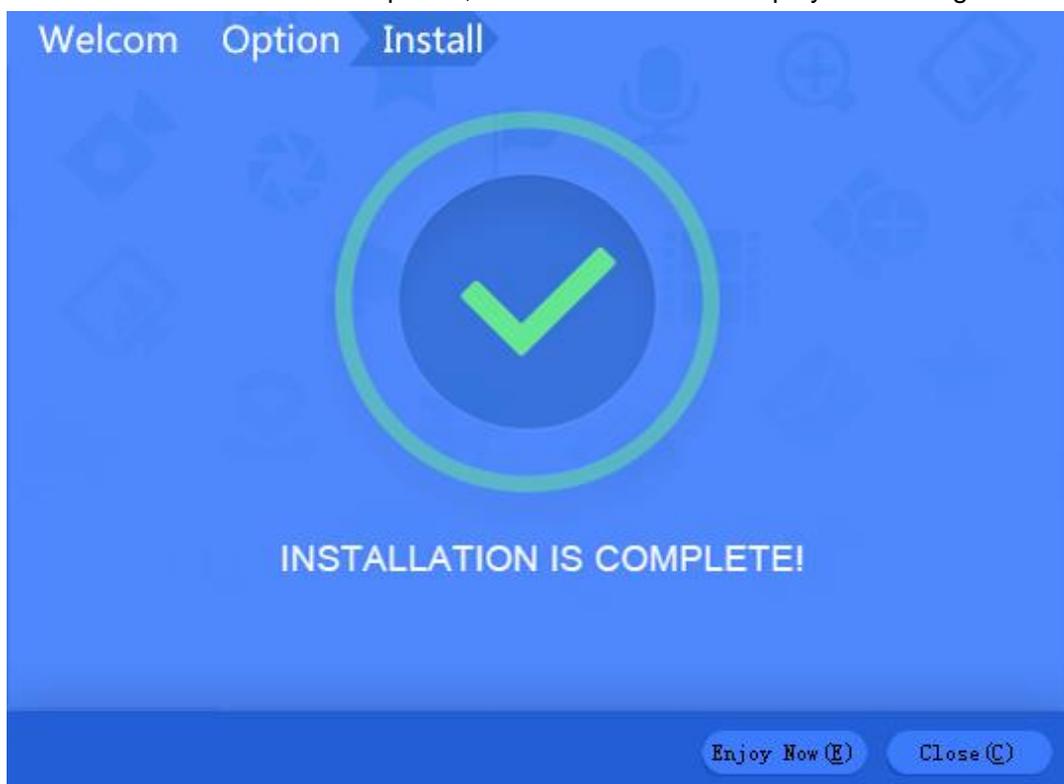


Figure 2-3

Step 6 Click **Close** to complete the installation.

2.2 Uninstallation

Step 1 On your computer (take Windows 7 as an example), click **Start > All Programs > ConfigTool > Uninstall ConfigTool**.

The **Uninstall** screen is displayed. See Figure 2-4.



Figure 2-4

Step 2 Click **Uninstall** to start uninstalling the Tool.

After the uninstallation is completed, the **Prompt** is displayed.

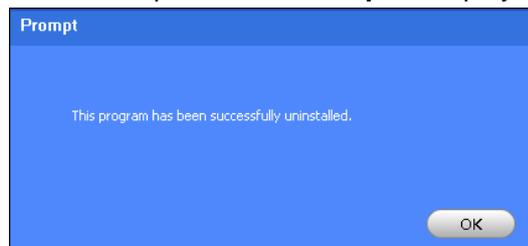


Figure 2-5

Step 3 Click **OK** to complete the uninstallation.

3 Basic Operations

3.1 Launching the ConfigTool

On the desktop, double-click , the Tool main user interface is displayed. See Figure 3-1 and Table 3-1.

 NOTE

- After the Tool is launched, it will search the devices according to the network segments set in **Search setting**.
- The default is both **Current Segment Search** check box and **Other Segment Search** check box are selected in the first launch of the Tool.

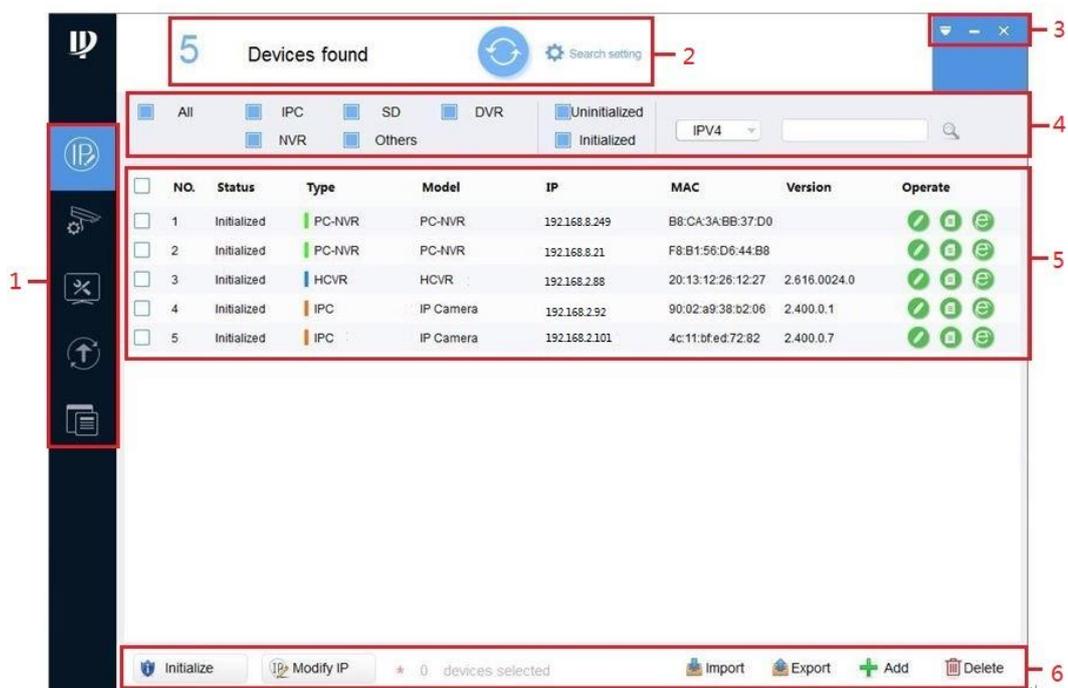


Figure 3-1

No.	Function	Description
1	Menu	<p>This function includes five tabs: Modify IP, Device Config, System Settings, Upgrade, and Template Setup.</p> <ul style="list-style-type: none"> • Modify IP ( to refresh the device list that is displayed in the main screen.
3	Help	<p>This function provides access to check the Help file, QA file and software version, set network parameters and upgrade parameters, minimize or exit the software.</p> <ul style="list-style-type: none"> • Click  to check the Help file, QA file and software version. Select Setting to set network timeout and online upgrade, including enable online upgrade, for detail, see "3.8.1 Enabling Online Upgrade." • Click  to minimize the software. • Click  to exit the software.
4	Filtering	<p>This function provides filtering by selecting device type and IP version (IPV4 or IPV6) to find the devices quickly.</p> <p>You can also manually enter the conditions such as type, IP address, model, MAC address and version number to search the devices.</p>
5	Device list	<p>This function shows the searched devices and their information such as type, mode, IP, MAC and version.</p> <p>The Operate column provides the following functions:</p> <ul style="list-style-type: none"> • Click  to modify device IP. • Click  to view device details. • Click  to open device WEB configuration interface. <p> NOTE It is not supported to modify IP or view device details under IPV6.</p>

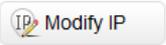
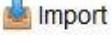
No.	Function	Description
6	Function buttons	<p>This function provides the following buttons:</p> <ul style="list-style-type: none"> • Select one or multiple devices and click  to start initializing. • Select one or multiple devices and click  to modify the IP addresses. • Click  to import one or multiple devices through template. • Select one or multiple devices and click  to export the device details. • Select one or multiple devices and click  to remove from the list.

Table 3-1

3.2 Adding Devices

You can add one or multiple devices depending on your actual situation.



Make sure the network is interworking between the device and the PC installed with the Tool; otherwise the Tool cannot find the device.

3.2.1 Adding One Device

You can choose this procedure for adding one device.

 NOTE

You can set the filtering conditions to search the wanted device quickly.

Step 1 Click .

The **Modify IP** screen is displayed. See Figure 3-2.

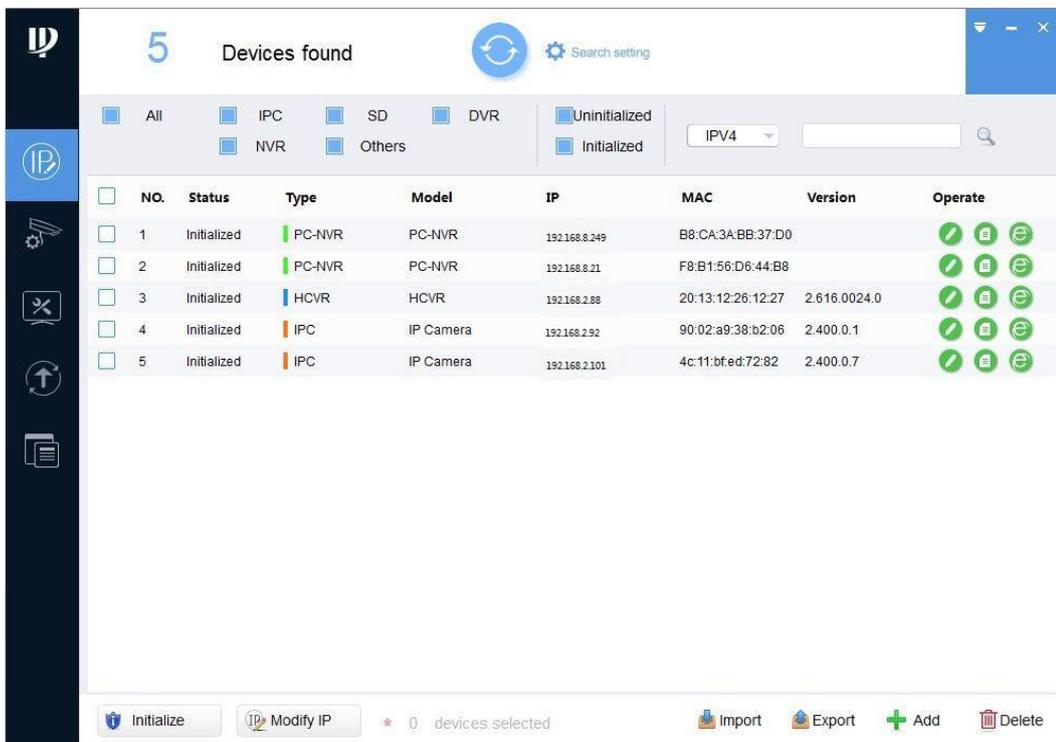


Figure 3-2

Step 2 Click **+** Add .

The **Manual Add** dialog box is displayed. In **Add Type** list, you can select **IP Address** or **Device SN**. See Figure 3-3 and Figure 3-4.

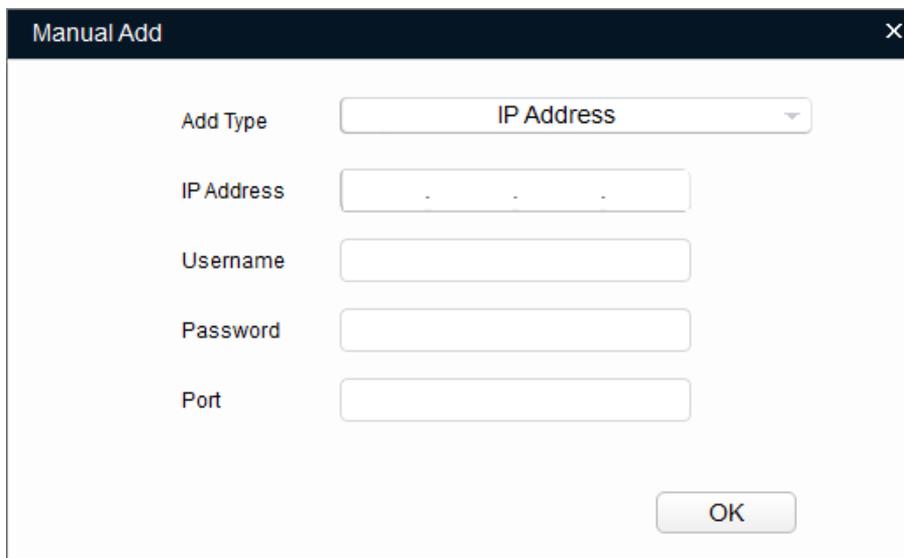


Figure 3-3

Figure 3-4

Step 3 Set the device parameters. See Table 3-2.

Add Method	Parameter	Description
IP Address	IP Address	The IP address of the device.
	Username	The user name and password for device login.
	Password	
	Port	The device port number.
Device SN (Device support P2P only)	SN	The serial number of the device.
	Username	The user name and password for device login.
	Password	

Table 3-2

Step 4 Click **OK**.

The newly added device appears in the device list.

3.2.2 Adding Multiple Devices

You can add multiple devices through searching devices or importing the template.

- If you know the network segment where the device is located, add the devices through searching. For details about how to add by searching, see "3.2.2.1 Adding by Searching."
- If you have the template data of the device, add the devices through importing the template. For details about how to add by template, see "3.2.2.2 Adding by Template."

3.2.2.1 Adding by Searching

You can add multiple devices through searching the current segment or other segment.

 NOTE

You can set the filtering conditions to search the wanted device quickly.

Step 1 Click  Search setting .

The **Setting** dialog box is displayed. See Figure 3-5.

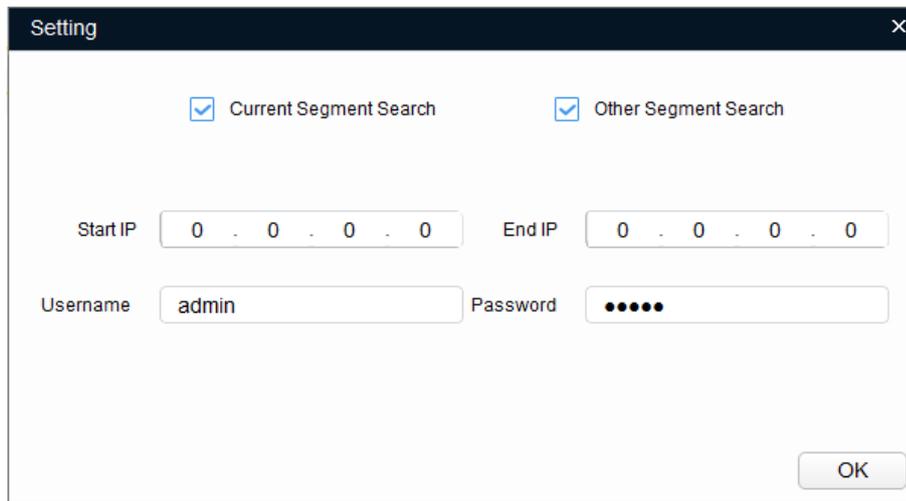


Figure 3-5

Step 2 Select the searching way. Both of the following two ways are selected by default.

- **Current Segment Search**
Select the **Current Segment Search** check box. Enter the user name in the **Username** box and the password in the **Password** box. The system will search the devices accordingly.
- **Other Segment Search**
Select the **Other Segment Search** check box. Enter the IP address in the **Start IP** box and **End IP** box respectively. Enter the user name in the **Username** box and the password in the **Password** box. The system will search the devices accordingly.

 NOTE

- If you select both the **Current Segment Search** check box and the **Other Segment Search box**, the system searches devices under the both conditions.
- The user name and the password are the ones used to login when you want to modify IP, configure the system and update the device.

Step 3 Click **OK** to start searching devices.

The searched devices will appear in the device list on the main user interface.

 NOTE

- Click  to refresh the device list.
- The system saves the searching conditions when exiting the software and reuses the same conditions when the software is launched next time.

3.2.2.2 Adding by Template

You can quickly add devices by using the template.

 NOTE

Make sure your PC is installed with Microsoft Excel.

3.2.2.2.1 Accessing to the Template

You can either manually fill in the template or export the device details file from the system.

- For the details about how to fill in the template, see "Filling in the template."
- For the details about how to export the device details, see "Exporting the device details file."

 NOTE

- The template (DeviceTemplate.xls) must be opened and edited by Excel.
- To delete the record in the template, right-click the line with the record, and then select **Delete**.

Filling in the Template

Step 1 Find the device template in the Tool save path and open it. See Figure 3-6.

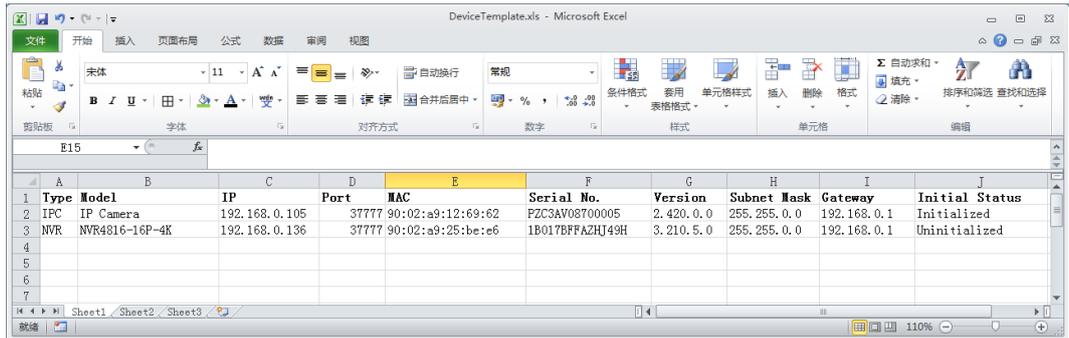


Figure 3-6

Step 2 Enter the device parameters. See Table 3-3.

Parameter	Description
Type	Optional. Device type, such as IPC, NVR.
Model	Optional. Device model.
IP	Mandatory. IP address of device.
Port	Mandatory. Port number of device.
MAC	Mandatory. Device MAC address that can be obtained from the device label.
Serial No.	Optional. Device serial number.
Version	Optional. Device version number.
Subnet Mask	Mandatory. Device subnet mask.
Gateway	Mandatory. Device gateway.
Initial Status	Mandatory. Device initialization status: Initialized or uninitialized.

Table 3-3

Step 3 Save and close the template.

Exporting the Device Details File

You can export the device details file and use it as a template to add or back up the device details.

Step 1 Click .

The **Modify IP** screen is displayed.

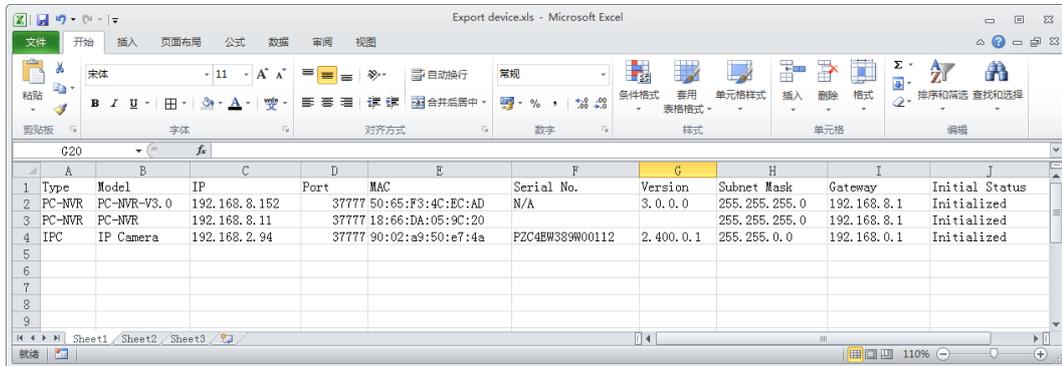
Step 2 Select the devices you want to export, and then click  **Export**.

The **Save As** dialog box is displayed.

Step 3 Choose the save path, enter the file name in the **File name** box, and then click **Save**.
The system starts exporting the device details. After the exporting is completed, a **Notice** dialog box is displayed.

Step 4 Click **OK** to complete exporting.

You can check the exported device details in the save path. See Figure 3-7.



The screenshot shows a Microsoft Excel spreadsheet titled 'Export device.xls'. The spreadsheet contains a table with the following data:

Type	Model	IP	Port	MAC	Serial No.	Version	Subnet Mask	Gateway	Initial Status
PC-NVR	PC-NVR-V3.0	192.168.8.152		37777 50:65:F3:4C:EC:AD	N/A	3.0.0.0	255.255.255.0	192.168.8.1	Initialized
PC-NVR	PC-NVR	192.168.8.11		37777 18:66:DA:05:9C:20			255.255.255.0	192.168.8.1	Initialized
IPC	IP Camera	192.168.2.94		37777 90:02:a9:50:e7:4a	PZC4EW389W00112	2.400.0.1	255.255.0.0	192.168.0.1	Initialized

Figure 3-7

3.2.2.2 Importing Devices

After getting the template, you can add the devices details into the template, and then import the template to the Tool. The devices in the template will display on the device list.



Close the template file before importing the devices; otherwise the import will fail.

Step 1 Click .

The **Modify IP** screen is displayed.

Step 2 Click  **Import**.

The **Open** dialog box is displayed.

Step 3 Select the template and click **Open**.

The system starts importing the devices details. After the importing is completed, a **Notice** dialog box is displayed.

Step 4 Click **OK**.

The newly imported devices appear in the device list. See Figure 3-8.

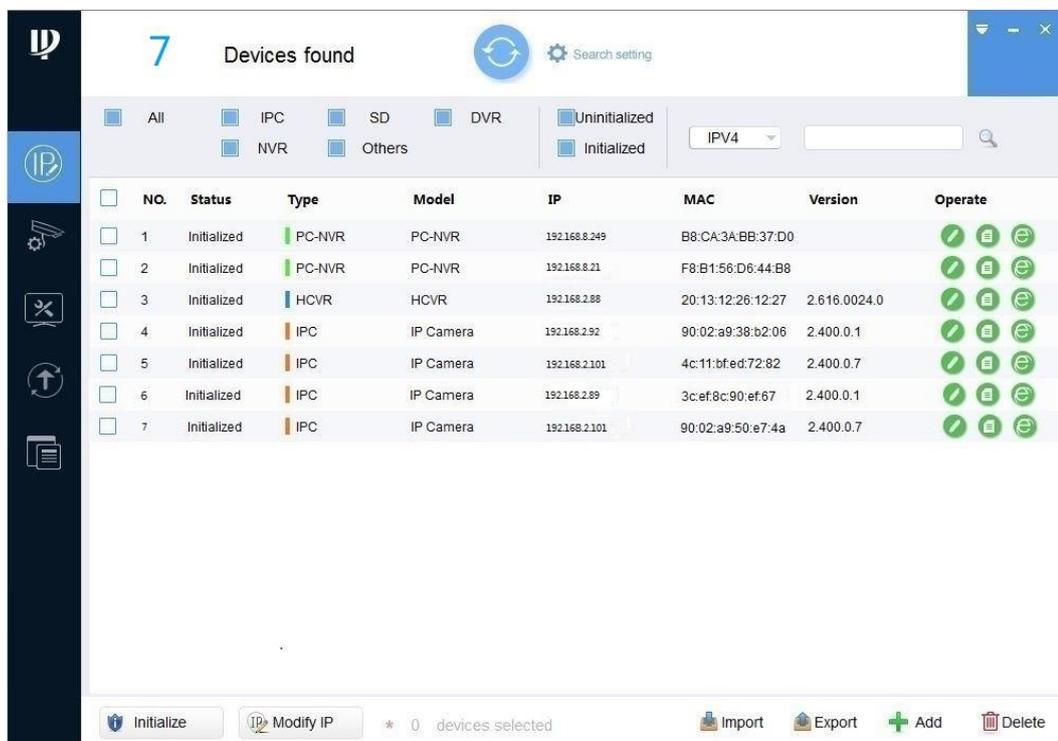


Figure 3-8

3.3 Initializing Devices

You can initialize one or multiple devices depending on your actual situation.

NOTE

- Not all models support this function.
- The initializing operation can only be performed to the devices within the local area network.
- The operations cannot be performed to the uninitialized devices that are shown in gray background. And the uninitialized devices do not appear in other interfaces of the Tool.

Step 1 Click .

The **Modify IP** screen is displayed. See Figure 3-9.

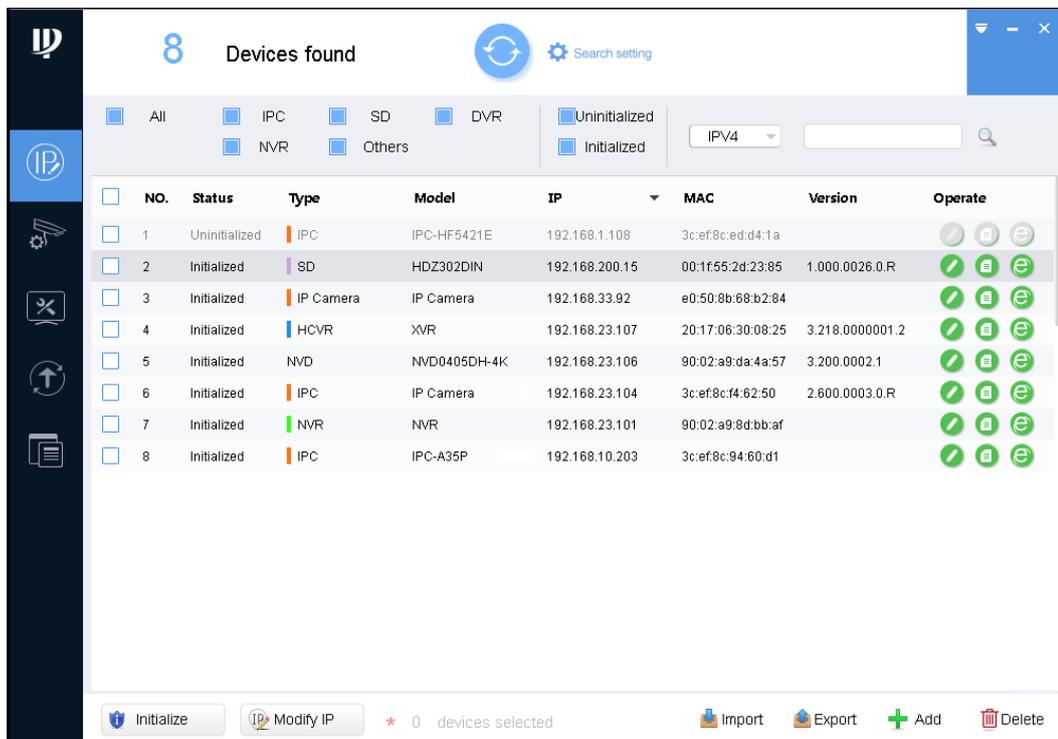


Figure 3-9

Step 2 Select one or several uninitialized devices.

Step 3 Click Initialize .

The **Device initialization** screen is displayed. See Figure 3-10.

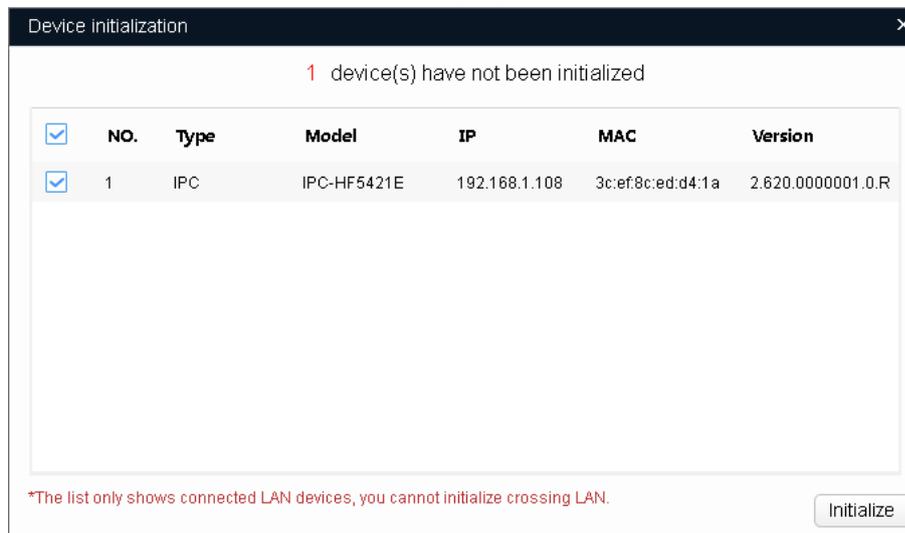


Figure 3-10

Step 4 Select the devices that need to be initialized, and then click **Initialize**.

The **Device initialization** screen is displayed. See Figure 3-11.

NOTE

- The user interface might be different dependent on the model you purchased. If there is inconsistency between the Manual and the actual product, the actual product shall govern.
- If you do not provide the reserve information for password reset, you can reset the password only through XML file.
- When initializing multiple devices, the Tool initializes all devices based on the password reset mode of the first selected device.

- After setting the new password is completed, reset the password in **Search setting** interface.

Figure 3-11

Step 5 Set the initialization parameters for the device. See Table 3-4.

Parameter	Description
Username	By default, the user name is admin .
New Password	Enter the new password for the device. There is an indication for the strength of the new password. The new password must be set between 8 digits and 32 digits and contain at least two types from number, letter and special characters (excluding "", "", ";", ":" and "&").
Confirm Password	Confirm the new password.
Email Address	Selected by default. The email address will be used for password reset.

Table 3-4

Step 6 Click **Next**.

The **Device Initialization** screen is displayed. See Figure 3-12.

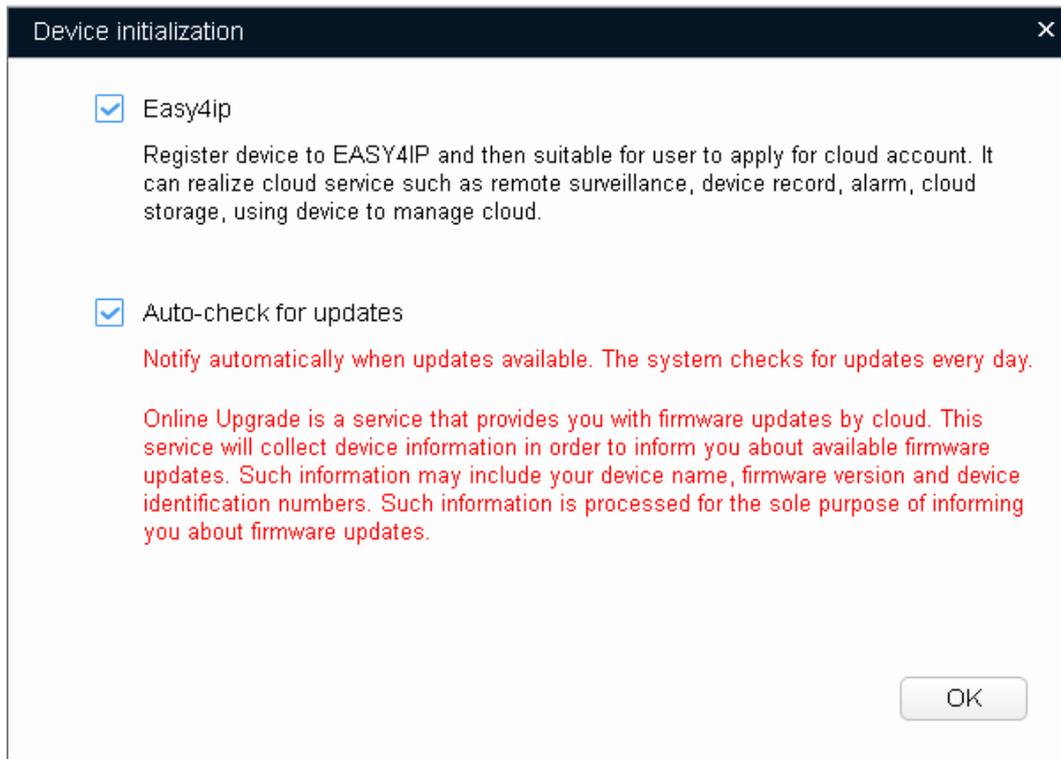


Figure 3-12

Step 7 Select **Easy4ip** or select **Auto-check for updates** according to the actual situation.

Step 8 Click **OK** to start initializing the device.

The **Initialization** screen is displayed after initializing is completed. See Figure 3-13.

Click the success icon (✓) or click the failure icon (⚠) for the details.

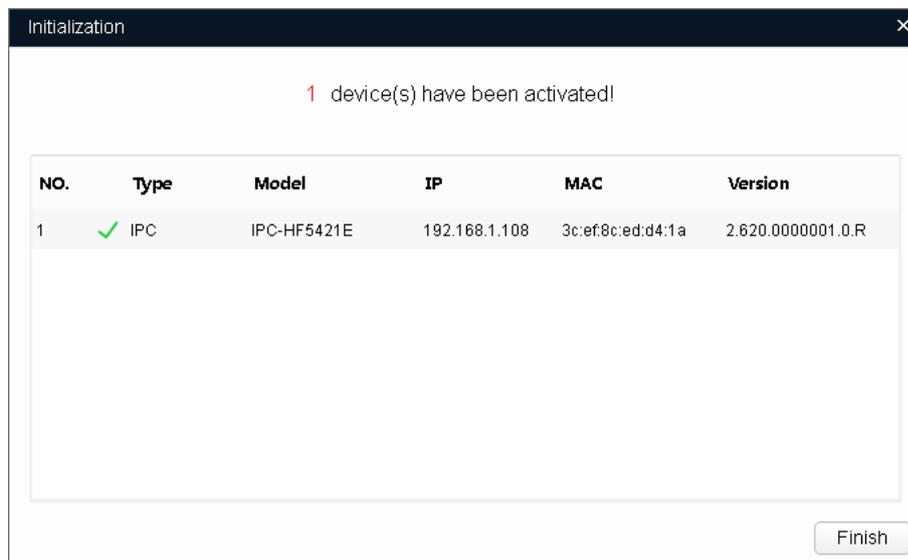


Figure 3-13

Step 9 Click **Finish** to finish initialization.

After the initialization is completed, the status of the devices shows as **Initialized** on the main user interface of the Tool. Meanwhile, the devices appear in other interfaces of the Tool.

3.4 Modifying IP

You can modify IP for one or multiple devices in one time.

You can modify IP in batches only if the devices' login passwords are the same; otherwise you can modify one IP at a time.

3.4.1 Modifying One IP

Step 1 Click .

The **Modify IP** screen is displayed. See Figure 3-14.

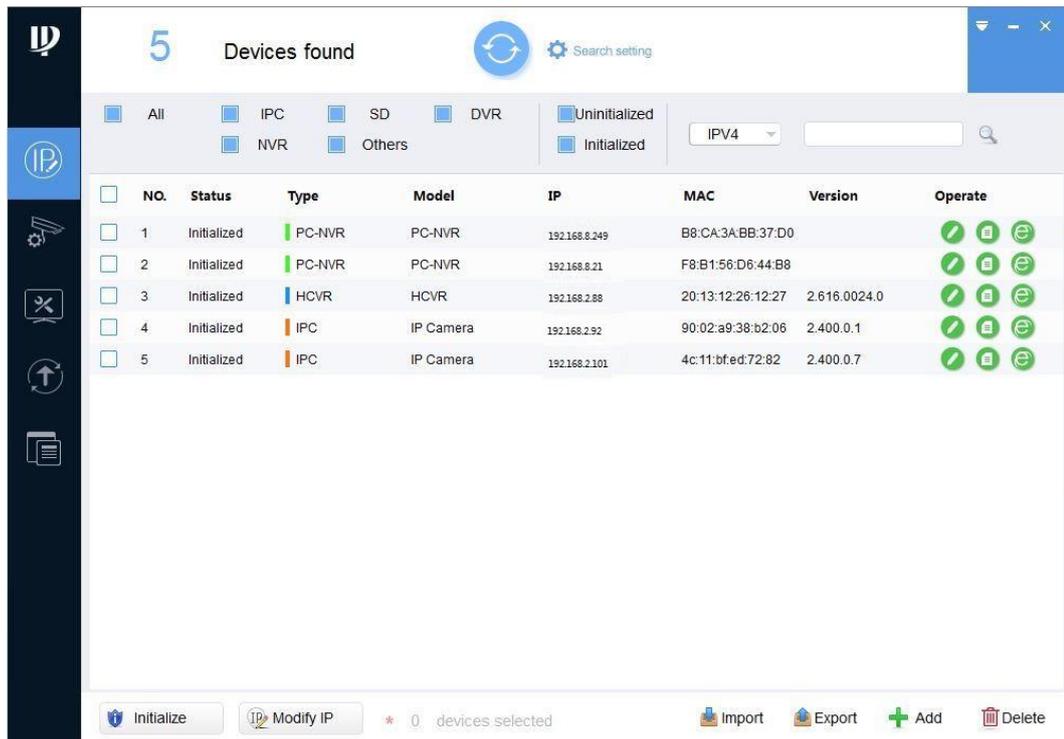


Figure 3-14

Step 2 Find the device you want to modify IP, and then click the **IP Modification** button .

The **Modify IP Address** dialog box is displayed. See Figure 3-15.

 NOTE

If the device is not in the device list, perform researching again. For the details about how to search devices, see "3.2 Adding Devices."

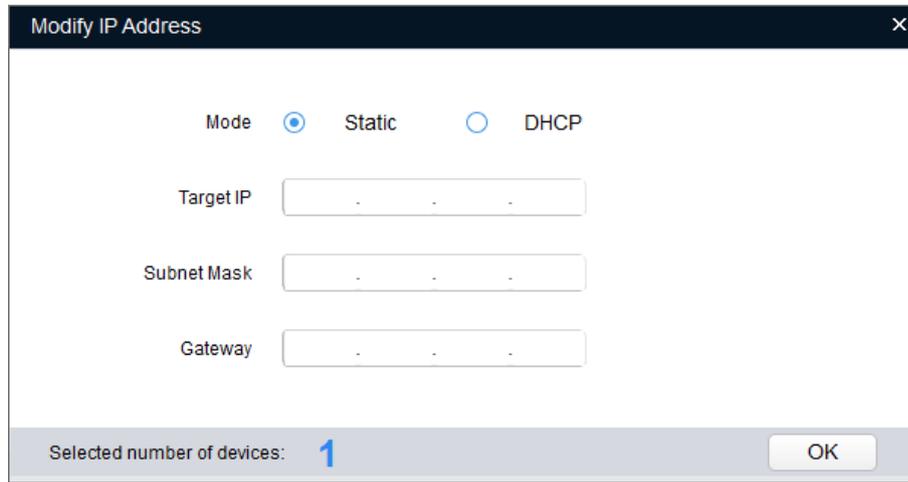


Figure 3-15

Step 3 Select the mode for setting the IP address according to the actual situation.

- DHCP mode: If the DHCP server is available in the network, when you select **DHCP**, the device will automatically obtain the IP address from the DHCP server.
- Static mode: When you select **Static**, you need to enter **Target IP**, **Subnet Mask**, and **Gateway**. The IP address of the device will be modified to be the one you set.

Step 4 Click **OK** to complete modification.

3.4.2 Modifying IP in Batches

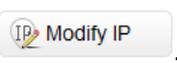
Step 1 Click .

The **Modify IP** screen is displayed.

Step 2 Select the devices you want to modify IP.

 NOTE

If the device is not in the device list, perform researching again. For the details about how to search devices, see "3.2 Adding Devices."

Step 3 Click .

The **Modify IP Address** dialog box is displayed. See Figure 3-16.

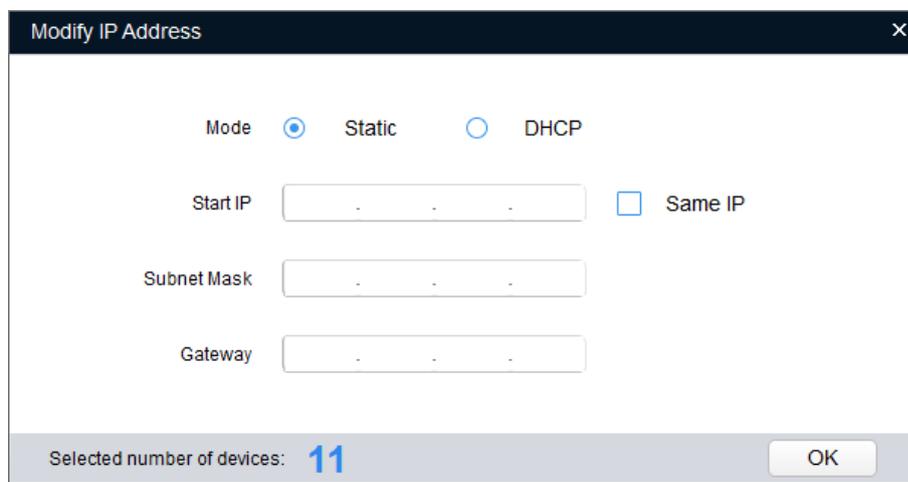


Figure 3-16

Step 4 Select the mode for setting the IP address according to the actual situation.

- DHCP mode: If the DHCP server is available in the network, when you select

DHCP, the device will automatically obtain the IP address from the DHCP server.

- **Static mode**: When you select **Static**, you need to enter **Start IP**, **Subnet Mask**, and **Gateway**. The IP address of the devices will be modified successively starting from the entered start IP.

 NOTE

If you select the **Same IP** check box, the IP address of the devices will be set to be the same one.

Step 5 Click **OK** to complete modification.

3.5 Configuring the Device Parameters

You can configure the encoding parameters, video parameters, and profile management.

3.5.1 Accessing the Configuration Interface

Step 1 Click .

The **Device Config** screen is displayed. See Figure 3-17.

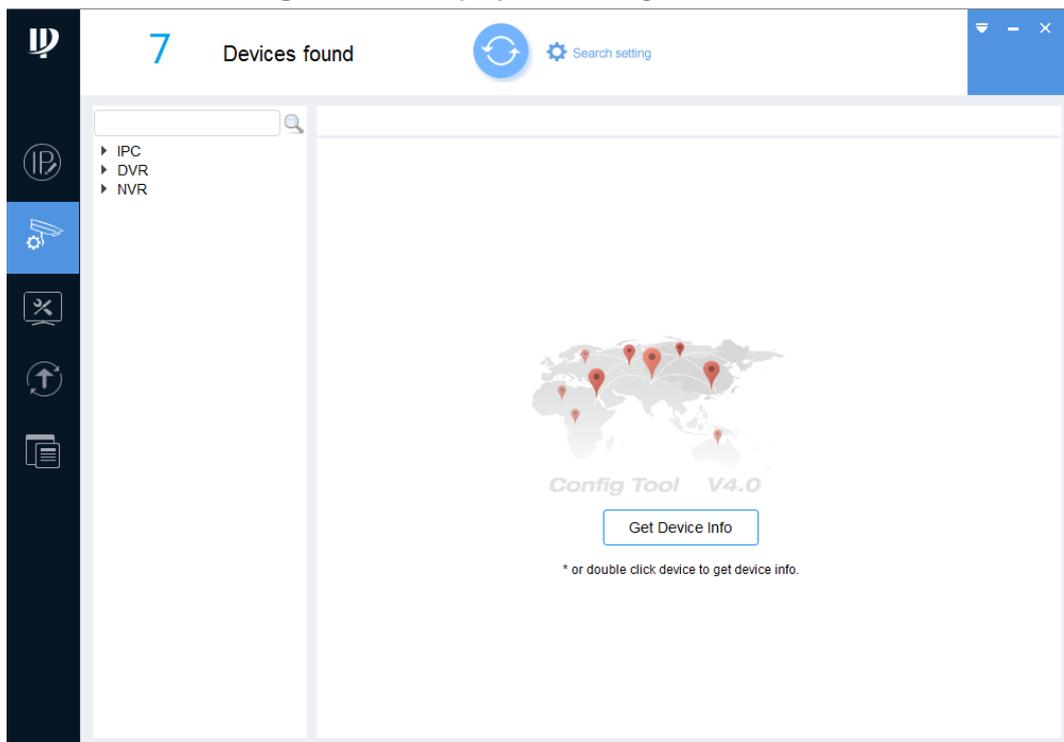


Figure 3-17

Step 2 Select the device under the device type such as IPC, and then click **Get Device Info** or double-click the device.

A **Notice** dialog box is displayed.

 NOTE

If the device is not in the device list, perform researching again. For the details about how to search devices, see "3.2 Adding Devices."

Step 3 Click **OK** or click **Cancel**.

- Click **OK** to enter the **Login** interface on which you can change the initial password of the device. See Figure 3-18.

The image shows a dark-themed dialog box titled "Login" with a close button (X) in the top right corner. Inside the dialog, there are two input fields: "Username" and "Password". Below these fields is a large, light-colored button labeled "OK".

Figure 3-18

Enter the username and password, and then Click **OK**.
The **Encode** screen is displayed. See Figure 3-19.

- Click **Cancel**.
The **Encode** screen is displayed. See Figure 3-19.

The image is a screenshot of a software interface titled "7 Devices found". It features a sidebar on the left with navigation icons and a main content area with three tabs: "Encode", "Image", and "Profile Management". The "Encode" tab is active, showing settings for "Main Stream" and "Sub Stream".

Parameter	Main Stream Value	Sub Stream Value
Channel	1	-
Code Stream Type	Regular	Regular
Bit Rate Type	CBR	CBR
Frame Rate	25	25
Resolution	2304x1296	D1
Quality	4	4
Bit Rate(Kb/S)	4096	1024
Compression	H.264H	H.264H
Audio	<input checked="" type="checkbox"/>	<input type="checkbox"/>
Audio Encode	G.711A	G.711A
Sampling Frequency	8000	8000

An "OK" button is located at the bottom right of the configuration area.

Figure 3-19

3.5.2 Configuring the Parameters

After accessing the Device Config interface, you can configure the encoding parameters, video parameters, and profile management.

3.5.2.1 Configuring Encoding Parameters

You can configure the parameters such as code stream type, compression and resolution for the device.

Step 1 On the **Encode** tab, set the parameters for main stream and sub stream. See Table

3-5.



The encoding parameters might be different dependent on the model you purchased. If there is inconsistency between the Manual and the actual product, the actual product shall govern.

Parameter	Description
Channel	Select the channel number.
Code Stream type	Includes Regular , Motion , and Alarm . The sub stream only supports Regular type.
Compression	Includes the following video encoding modes: <ul style="list-style-type: none"> • H.264: Main profile encoding. • H.264B: Baseline profile encoding. • H.264H: High profile encoding. • H.265: Main profile encoding. • MJPG: Under this mode, the video image requires higher bit rate to ensure video quality. It is recommended to use the maximum bit rate value to get the best results.
Bit Rate Type	Includes the following two types of bit rate: <ul style="list-style-type: none"> • Constant Bit Rate (CBR): The bit rate is fluctuating around the set value without big changes. • Variable Bit Rate (VBR): The bit rate is changing along with the monitoring environment. NOTE When the compression is set as MJPG , the bit rate can only be CBR .
Frame Rate	Indicates the total frames per second. The higher the frame rate, the more clear and smooth the image will become.
Resolution	Indicates the video resolution. The maximum video resolution might be different dependent on your device model.
Quality	Indicates the video image quality level. You can configure this parameter when the bit rate type is set as VBR .
Bit Rate (Kb/S)	Select the suitable value according to the actual situation. You can configure this parameter when the bit rate type is set as CBR .
Audio/Video	<ul style="list-style-type: none"> • To enable the audio function, select the Audio check box. • To monitor with the sub stream, select the Video check box. For the sub stream, you can enable the audio function only after the video function is already enabled.
Audio Encode	Indicates audio encoding mode that includes G.711A, G.711Mu, G.726, and AAC. The setting of audio encoding mode will simultaneously apply to both audio and voice intercom.
Sampling Frequency	Indicates the sampling frequency of the audio.

Table 3-5

Step 2 Click **OK** to complete settings.

3.5.2.2 Configuring Video Parameters

You can check the live monitoring picture and set the video effects.

Step 1 Click the **Image** tab.

The **Image** screen is displayed. See Figure 3-20.

 NOTE

- Click **Default** to restore the default parameters settings.
- Rotate the wheel button on the image to zoom in or zoom out. Right-click on the image to return to the default size.
- On the image, click  to display in full screen on which click  to restore the default.

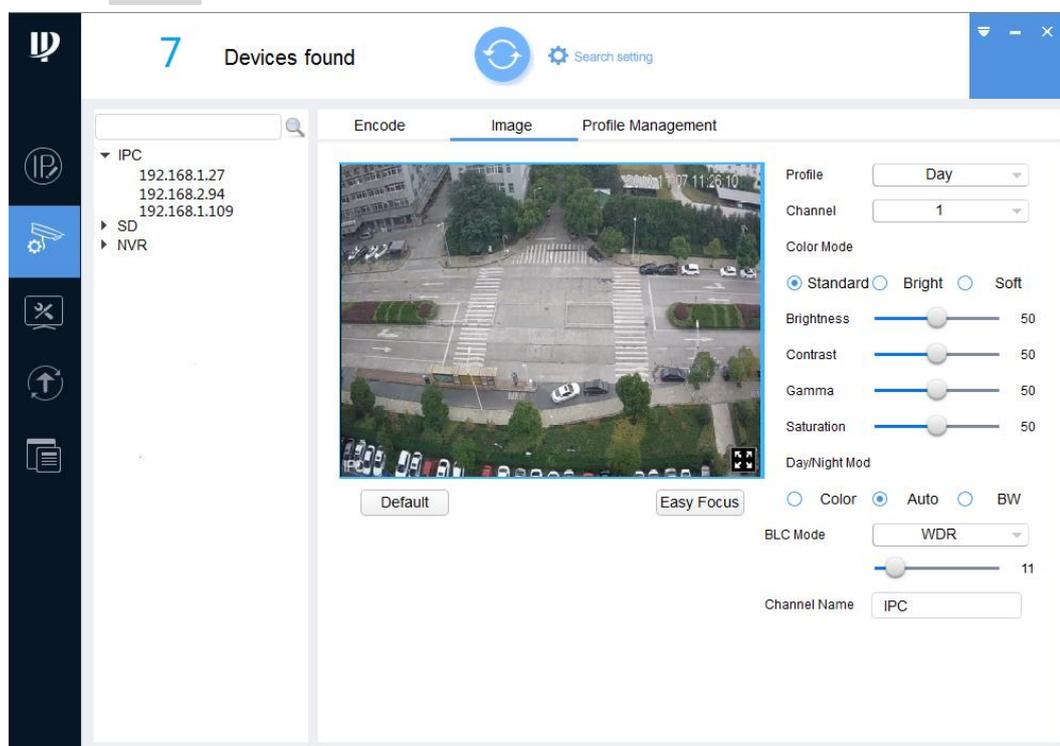


Figure 3-20

Step 2 Set the video parameters. See Table 3-6.

Parameter	Description
Profile	Select the device profile from Day, Night, and Normal for the device.
Channel	Select the channel number for the device.
Color Mode	Select the image color mode from Standard, Bright, and Soft for the device.
Brightness	Adjust the image brightness. The bigger the value, the brighter the image will become.
Contrast	Adjust the image contrast. The bigger the value is, the more obvious the contrast between the light area and dark area will become.
Gamma	Adjust the image brightness in a non-linear way to improve the dynamic display range. The bigger the value, the brighter the image will become.

Parameter	Description
Saturation	Adjust the color shades. The bigger the value, the lighter the color will become. This value does not influence the general image lightness.
Day/Night Mode	Includes the following three options: <ul style="list-style-type: none"> • Color: Select this option to set the color image. • Auto: Select this option to automatically set the image to be one of the other two options according to the environment. • BW: Black and white. Select this option to set image to be black and white.
BLC Mode	<ul style="list-style-type: none"> • OFF: Turn off the backlight compensation mode. • BLC: Backlight compensation. In the backlighting environment, the compensation function can avoid silhouette of the dark part when taking a picture. • WDR: Wide Dynamic Range. In the strong illumination contrast, this function can suppress the area with excessive brightness and compensate the area with excessive darkness so as to make the image clearer in general. • HLC: Highlight Compensation. This function can weaken the strong light to reach the brightness balance.
Channel Name	Set the device channel name. The input cannot be null character.

Table 3-6

Step 3 (Optional) Set the **Easy Focus** function.



Implement this step when you need to perform fine adjustment to the focal distance.

1. Click **Easy Focus**.

The **Easy Focus** screen is displayed. See Figure 3-21.

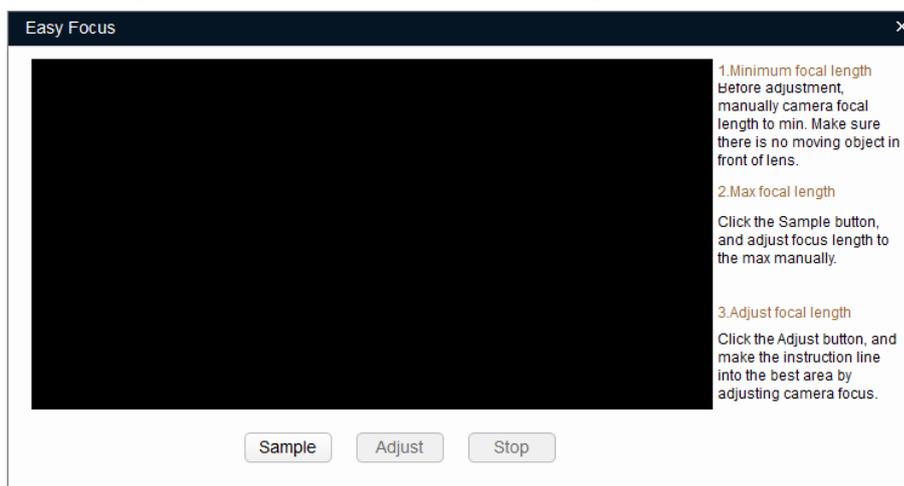


Figure 3-21

2. Manually adjust the device focal length to the minimum value, and then click **Sampling**. Meanwhile, manually adjust the device focal length to the maximum value.

The sampling started. See Figure 3-22.

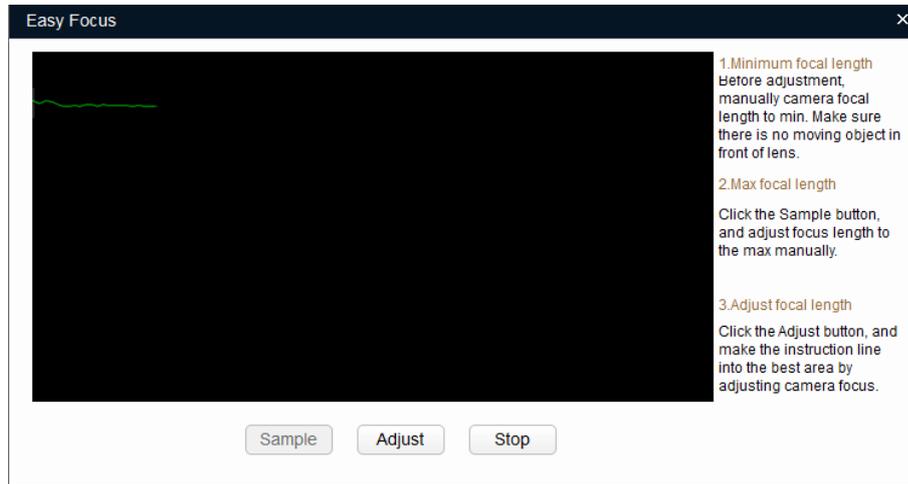


Figure 3-22

3. Click **Adjust**.

The **The Best Area** screen is displayed. Manually adjust the focus till the focal length indicating line has entered the best area. See Figure 3-23.

NOTE

- The red line indicates the image definition value, and the green line indicates the definition value when the focal length changes from the minimum to the maximum.
- Click **Stop** to end the fine adjustment to the focal distance.

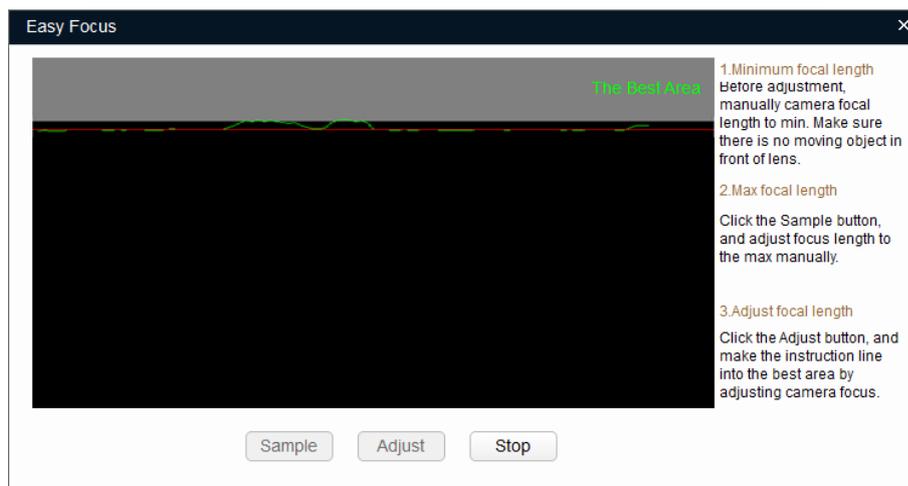


Figure 3-23

3.5.2.3 Configuring the Profile Management

You can manage the profiles through **Normal**, **Full Time**, and **Schedule**.

Step 1 Click the **Profile Management** tab.

The **Profile Management** screen is displayed.

Step 2 Set the management profile.

- Select **Normal**.

The system monitors according to the normal configuration. See Figure 3-24.

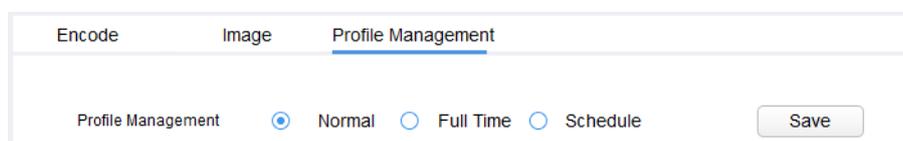
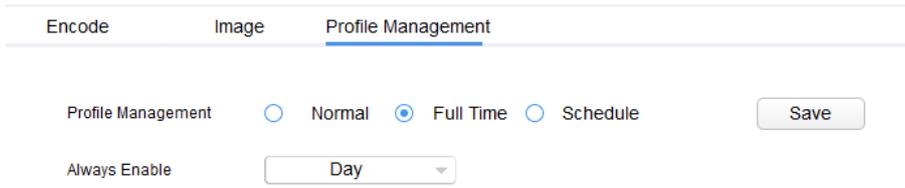


Figure 3-24

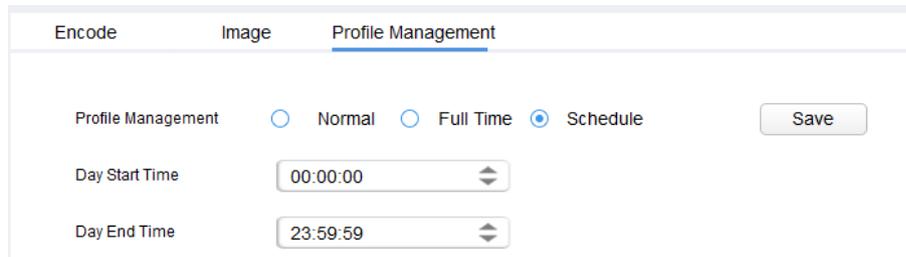
- Select **Full Time**, and then select **Day** or **Night**.
The system monitors according to the corresponding settings. See Figure 3-25.



The screenshot shows a web interface with three tabs: 'Encode', 'Image', and 'Profile Management'. The 'Profile Management' tab is active. Below the tabs, there are three radio button options: 'Normal', 'Full Time', and 'Schedule'. The 'Full Time' option is selected. To the right of these options is a 'Save' button. Below the radio buttons, there is a label 'Always Enable' followed by a dropdown menu currently showing 'Day'.

Figure 3-25

- Select **Schedule**, and then type **Day Start Time** and **Day End time**. The rest time is night. For example, if you set 8:00~17:00 as day, so 0:00~8:00 and 18:00~24:00 are night.
The system monitors according to the corresponding settings. See Figure 3-26.



The screenshot shows the same web interface as Figure 3-25, but with the 'Schedule' radio button selected. Below the radio buttons, there are two time input fields. The first is labeled 'Day Start Time' and contains '00:00:00'. The second is labeled 'Day End Time' and contains '23:59:59'. A 'Save' button is still present to the right.

Figure 3-26

Step 3 Click **Save** to complete settings.

3.6 Configuring System Settings

You can configure the settings for system time, reboot, restore, device password and video password.

3.6.1 Timing

You can calibrate the device time through configuration.

Step 1 Click .

The **Timing** screen is displayed. See Figure 3-27.

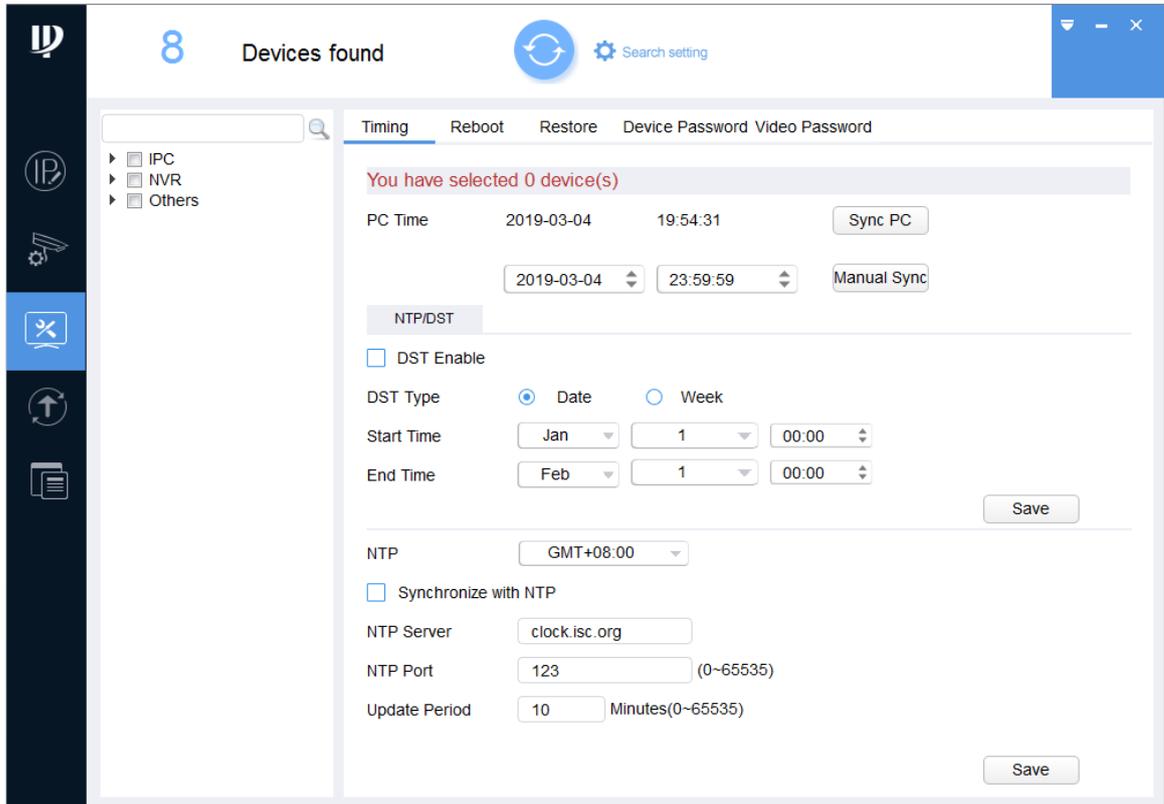


Figure 3-27

Step 2 Click  next to the device type.

The device list is displayed.

Step 3 Select one or multiple devices.

 **NOTE**

If the device is not in the device list, perform researching again. For the details about how to search devices, see "3.2 Adding Devices."

Step 4 Select the time sync way for the device.

- Manual sync: Type the time and select the time zone, and then click **Manual Sync**. The device time will sync with the setting.
- PC sync: Click **Sync PC**. The device time will sync with the PC time.
- NTP sync: Select **Synchronize with NTP** check box and set the parameters. See Table 3-7.

Parameter	Description
NTP Sever	Type the IP address or domain name of the corresponding NTP server.
NTP Port	Type the port number of corresponding NTP server.
Update Period	Type the time interval that device sync with the NTP.

Table 3-7

Step 5 (Optional) Select **DST Enable** (Daylight Saving Time) check box and set the parameters. See Table 3-8.

 **NOTE**

Implement this step when you use the device in the countries or regions where the DST is carried out.

Parameter	Description
DST Type	Select Date or Week according to the actual situation.
Start Time	Set the DST start time and end time.
End Time	

Table 3-8

Step 6 Click **Save** to complete settings.

3.6.2 Rebooting

You can manually or automatically reboot the device.



Rebooting will interrupt operations, so please reboot the device when the operation is not so frequent.

Step 1 Click .

The **Timing** screen is displayed.

Step 2 Click the **Reboot** tab.

The **Reboot** screen is displayed. See Figure 3-28.

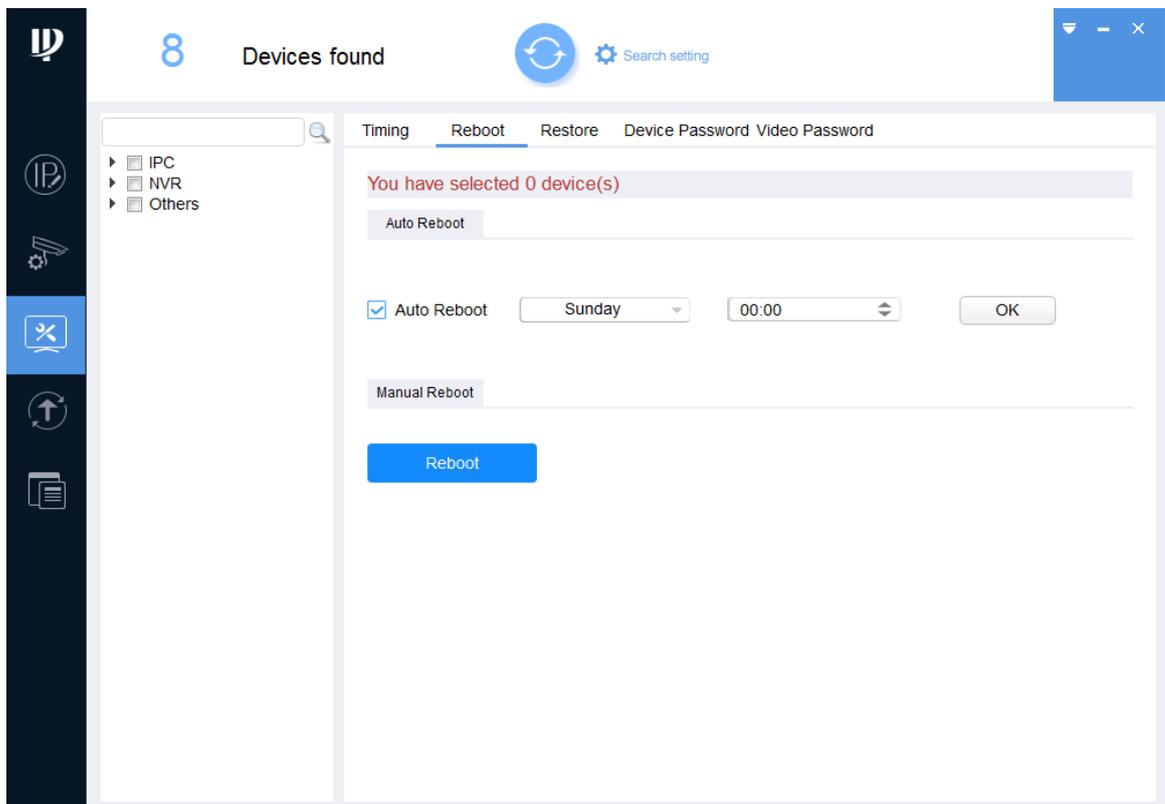


Figure 3-28

Step 3 Click  next to the device type.

The device list is displayed.

Step 4 Select one or multiple devices.

 NOTE

If the device is not in the device list, perform researching again. For the details about how to search devices, see "3.2 Adding Devices."

Step 5 Select the reboot type for the device according your actual situation.

- Auto reboot: Under **Auto Reboot**, select **Auto Reboot** check box and set a day of a week and the specific time, and then click **OK**.
 - The device will reboot at the set time.
- Manual reboot: Under **Manual Reboot**, click **Reboot**.
 - The device reboots immediately.

3.6.3 Restoring

You can restore the default parameters value, including normal configuration, encoding configuration, video configuration, serial port configuration, alarm setup, video detection, and Pan Tilt Zoom (PTZ) control.

Step 1 Click .

The **Timing** screen is displayed.

Step 2 Click the **Restore** tab.

The **Restore** screen is displayed. See Figure 3-29.

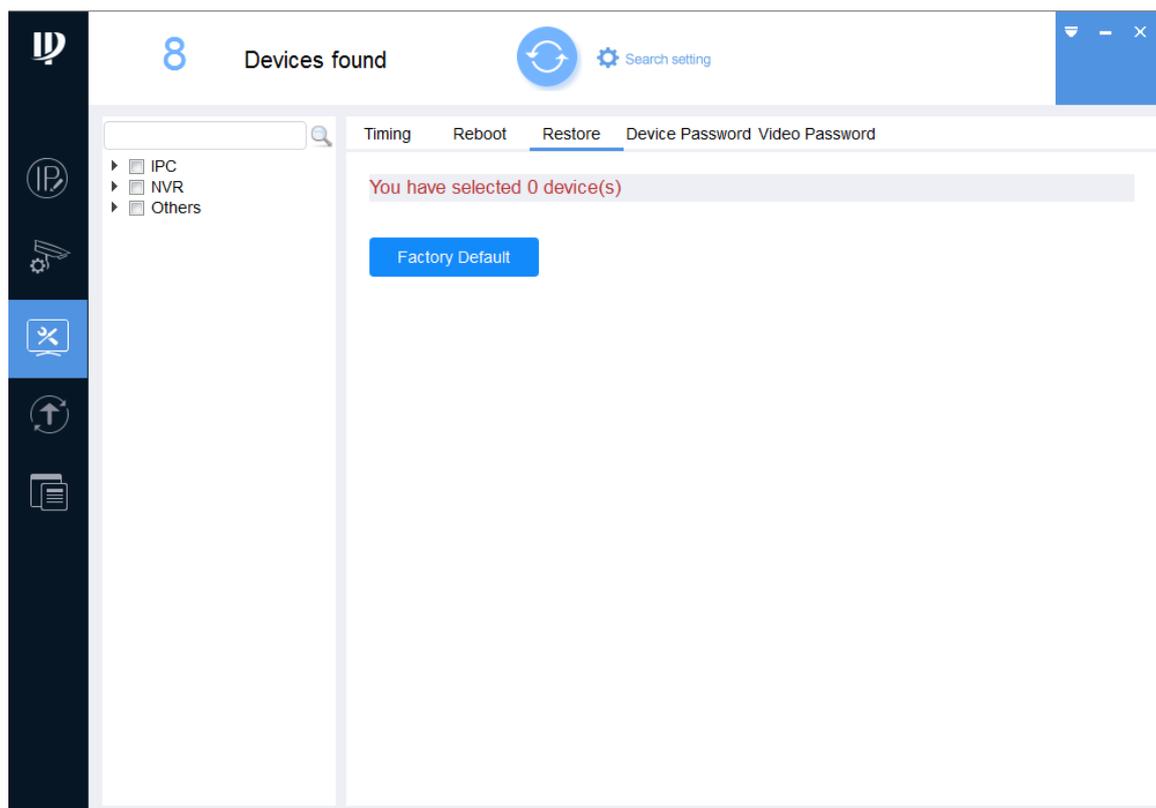


Figure 3-29

Step 3 Click  next to the device type.

The device list is displayed.

Step 4 Select one or multiple devices.

 NOTE

If the device is not in the device list, perform researching again. For the details about

how to search devices, see "3.2 Adding Devices."

Step 5 Click **Factory Default** to start restoring the selected devices.

The result is displayed next to the device after restoring is completed. See Figure 3-30.

Click the success icon (✓) or click the failure icon (⚠) for the details.

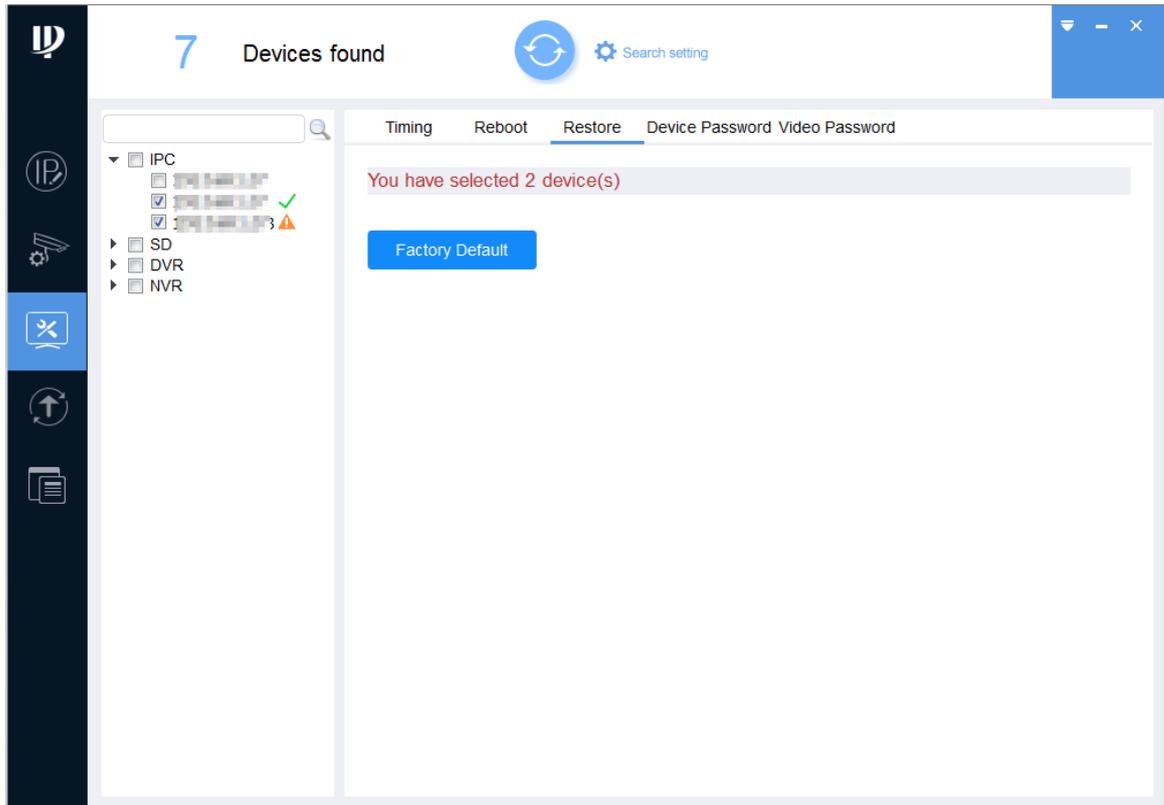


Figure 3-30

3.6.4 Device Password

3.6.4.1 Modify Device Password

You can modify the device login password.

Step 1 Click .

The **Timing** screen is displayed.

Step 2 Click the **Device Password** tab.

The **Device Password** screen is displayed. See Figure 3-31.

Step 6 Click **OK** to complete modification.

3.6.4.2 Resetting Device Password

You can reset the password through the quick response code (QR code) or XML file.

NOTE

- NVR and DVR devices do not support this function.
- The password resetting operation can only be performed to the devices within the local area network.
- If you did not type the reserve information for password reset during device initializing, you can reset the password only through XML file.

3.6.4.2.1 Using the QR Code

You can reset the password by scanning the QR code. This procedure is only applicable to a single device situation.

Step 1 Click .

The **Timing** screen is displayed.

Step 2 Click the **Device Password** tab.

The **Device Password** screen is displayed. See Figure 3-32.

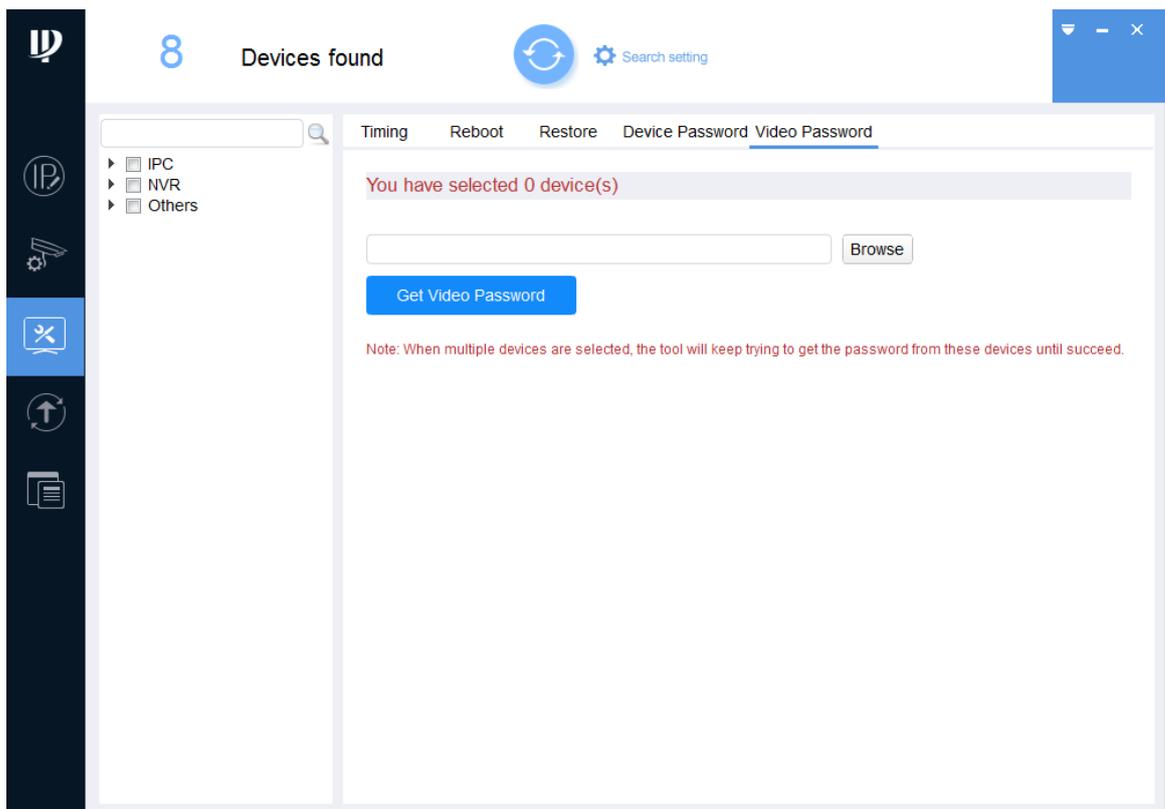


Figure 3-32

Step 3 Click  next to the device type.

The device list is displayed.

Step 4 Select the device that needs to reset the password.

 NOTE

If the device is not in the device list, perform researching again. For the details about how to search devices, see "3.2 Adding Devices."

Step 5 Click **Reset Password**.

If the device does not support this function, a message is displayed to provide such indication. If the device supports this function, a **Notice** box will be displayed. See Figure 3-34. Click **Agree**, the **Reset Password** screen is displayed. See Figure 3-34.

 NOTE

The user interface might be different dependent on the model you purchased. If there is inconsistency between the Manual and the actual product, the actual product shall govern.

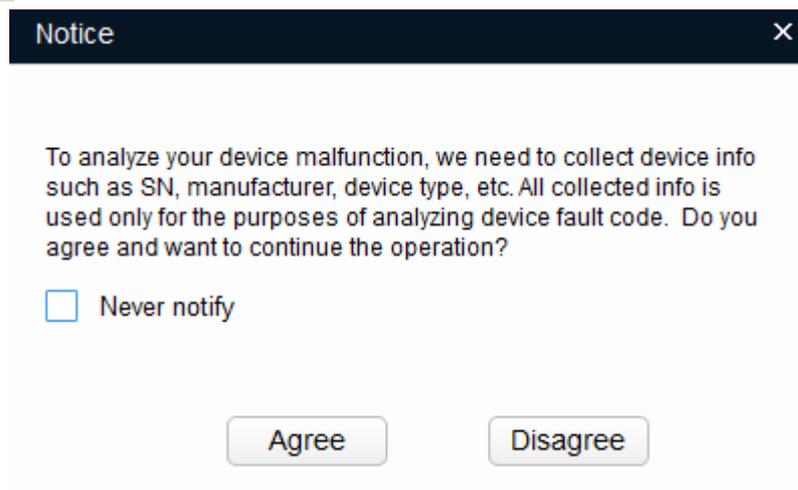


Figure 3-33

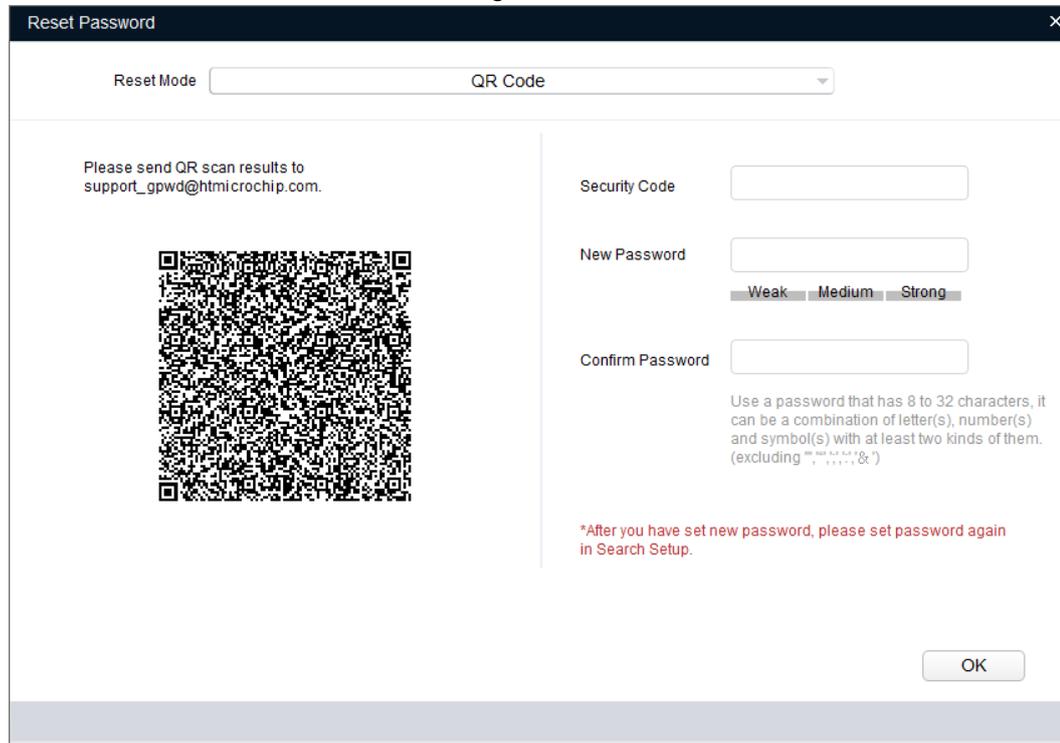


Figure 3-34

Step 6 Under **Reset Mode**, select **QR code**.

Step 7 Perform operations according to the instructions on the interface to obtain the security code.

Step 8 Enter old password, new password, and confirm password.

 NOTE

The new password must be set between 8 digits and 32 digits and contain at least two types from number, letter and special characters (excluding "", "", ",", ".", " and "&").

Step 9 Click **OK** to start resetting the password.

The result is displayed next to the device after restoring is completed. Click the success icon (✓) or click the failure icon (⚠) for the details.

3.6.4.2.2 Using the XML File

You can reset the password by XML file for one device or multiple devices.

Step 1 Click .

The **Timing** screen is displayed.

Step 2 Click the **Device Password** tab.

The **Device Password** screen is displayed. See Figure 3-35.

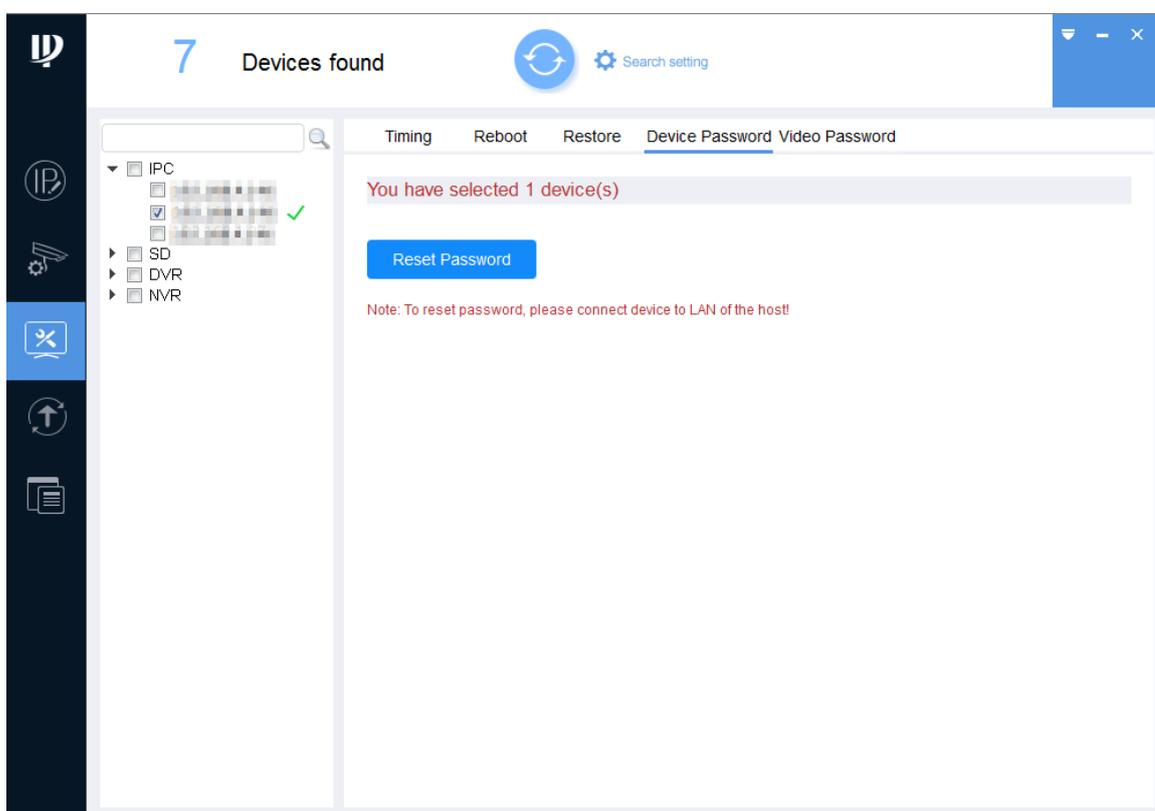


Figure 3-35

Step 3 Click  next to the device type.

The device list is displayed.

Step 4 Select one device or multiple devices.

 NOTE

If the device is not in the device list, perform researching again. For the details about how to search devices, see "3.2 Adding Devices."

Step 5 Click **Reset Password**.

If the device does not support this function, a message is displayed to provide such indication. If the device supports this function, a **Notice** box will be displayed. See Figure 3-36. Click **Agree**, the **Reset Password** screen is displayed. See Figure 3-37.

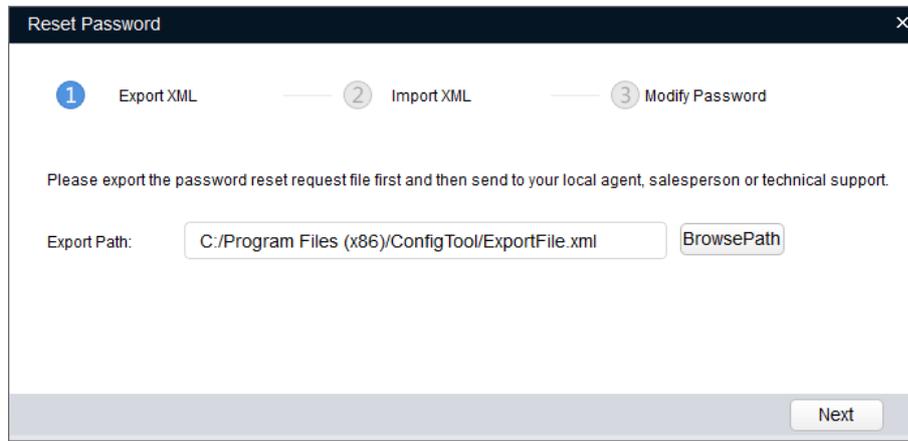


Figure 3-38

Step 7 Export XML.

1. Click **Browse** to select the save path for the exported XML file.
2. Click **Next** to start exporting.
After the exporting is completed, a **Notice** dialog box will be displayed.
3. Click **OK** to complete exporting.
After completing exporting the XML, the import XML screen is displayed.
Find the **ExportFile.xml** under the save path and send it as an attachment to the local technical support team. Then you will receive a **result.xml** file from the team.

Step 8 Import XML.



If the **Reset Password-Import XML** screen is closed, click **System Settings > Reset Password**. On the **Reset Password** tab, click **Note: To reset password, please connect device to LAN of the host!** to continue the operation.

1. Click **Open** to import the **result.xml** file from the save path. See Figure 3-39.

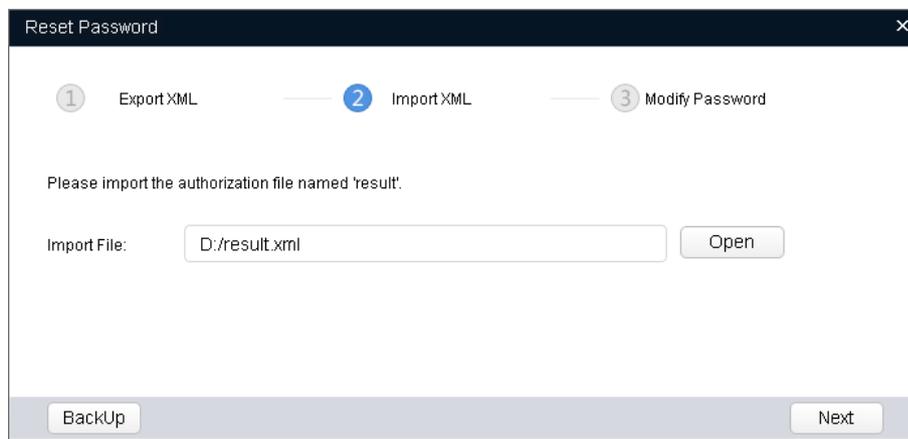


Figure 3-39

2. Click **Next** to start importing.
After completing exporting the XML, the **Reset Password-Modify Password** screen is displayed. See Figure 3-40.

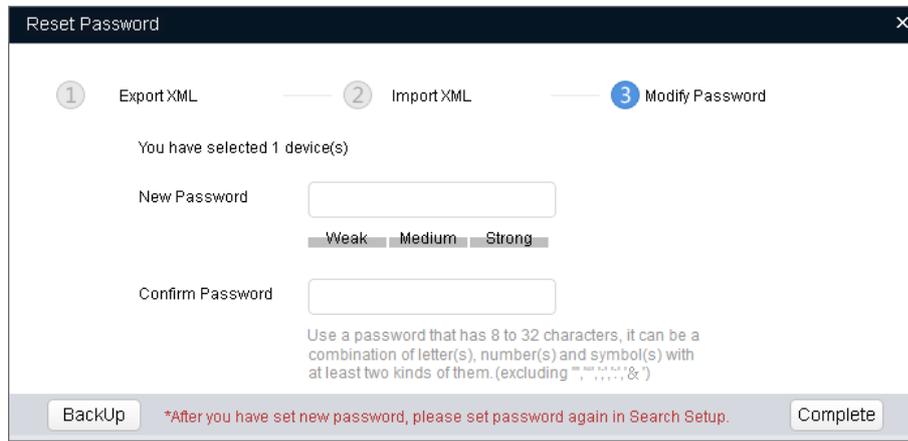


Figure 3-40

Step 9 Modify Password.

1. Enter the new password and confirm password.



The new password must be set between 8 digits and 32 digits and contain at least two types from number, letter and special characters (excluding "", "", "", ":", "." and "&").

2. Click **Finish** to starting resetting the password.
The result is displayed next to the device after operation is completed. Click the success icon (✓) or click the failure icon (⚠) for the details.

3.6.5 Video Password

You can get back password for video files.

- Step 1** Click .

The **Timing** screen is displayed.

- Step 2** Click the **Video Password** tab.

The **Video Password** screen is displayed. See Figure 3-41.

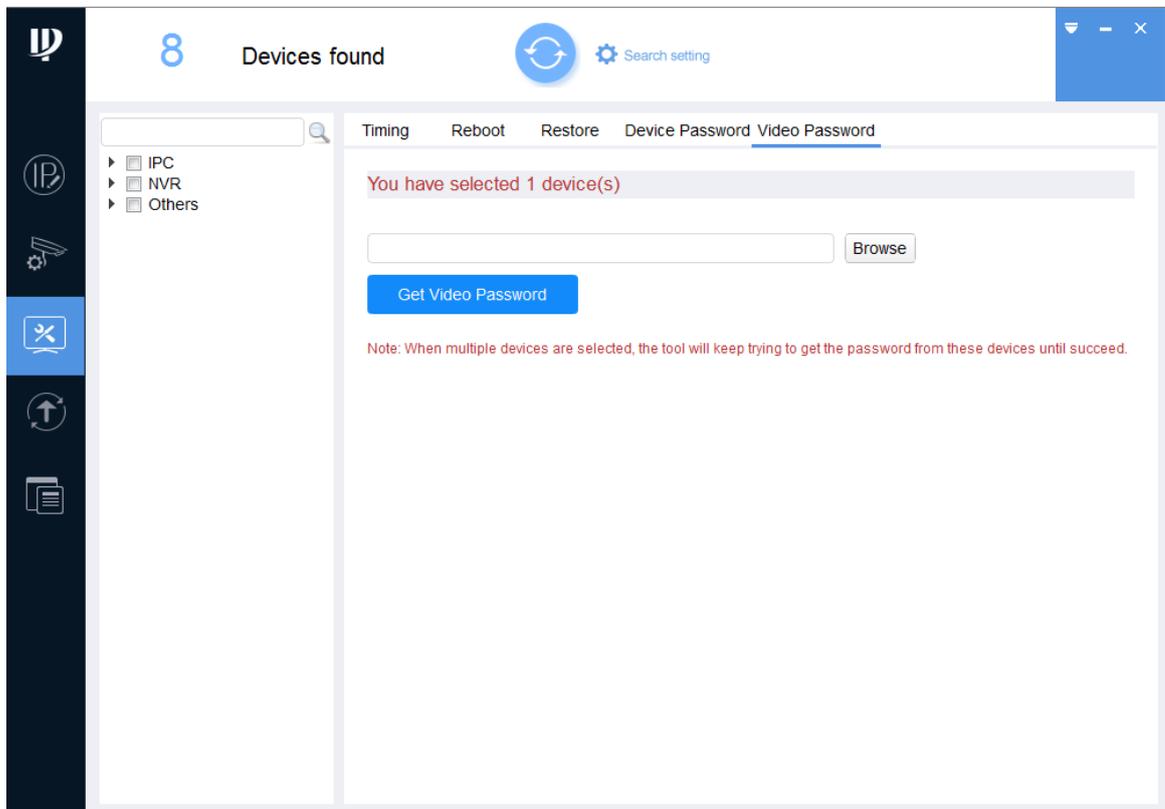


Figure 3-41

Step 3 Click  next to the device type.

The device list is displayed.

 NOTE

If the device is not in the device list, perform researching again. For the details about how to search devices, see "3.2 Adding Devices."

Step 4 Select one or multiple devices.

Step 5 Click **Browse** to select a video file.

Step 6 Click **Video Password**.

The **Video Password** screen is displayed. See Figure 3-42.

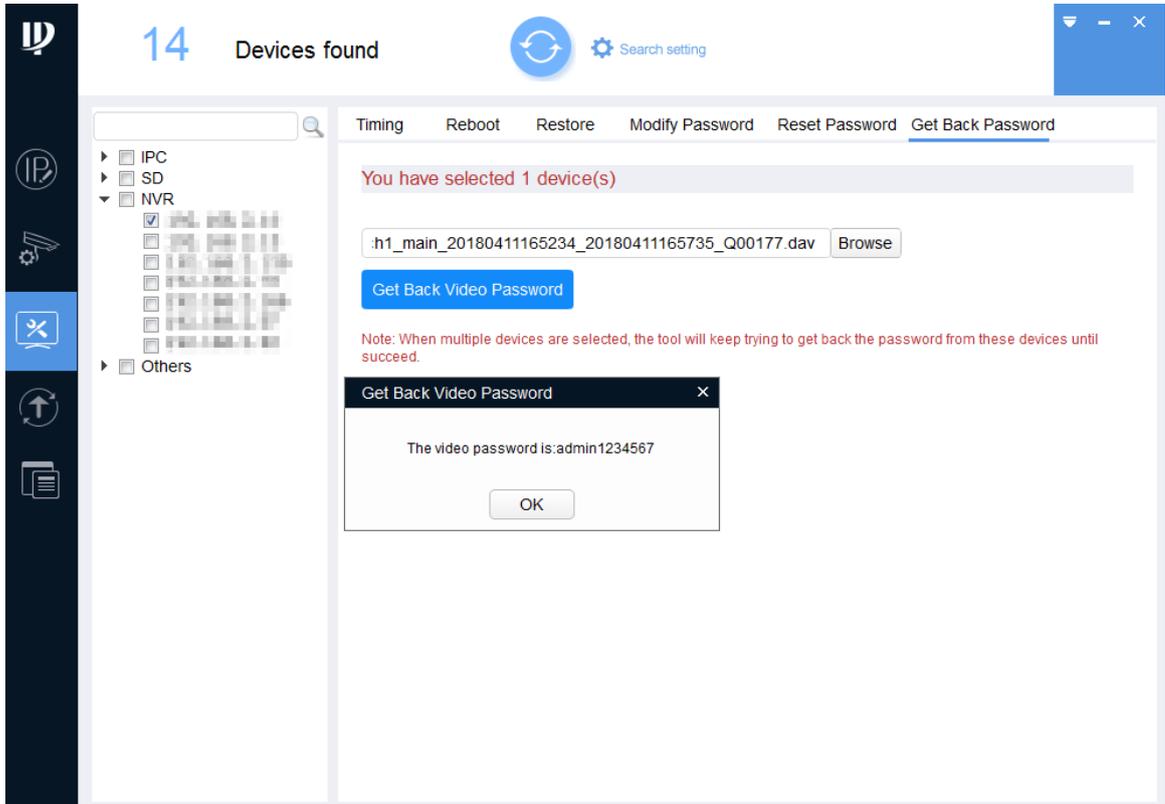


Figure 3-42

Step 7 Click **OK**.

The result is displayed next to the device after getting back video password is completed. See Figure 3-43.

Click the success icon (✓) or click the failure icon (⚠) for the details.

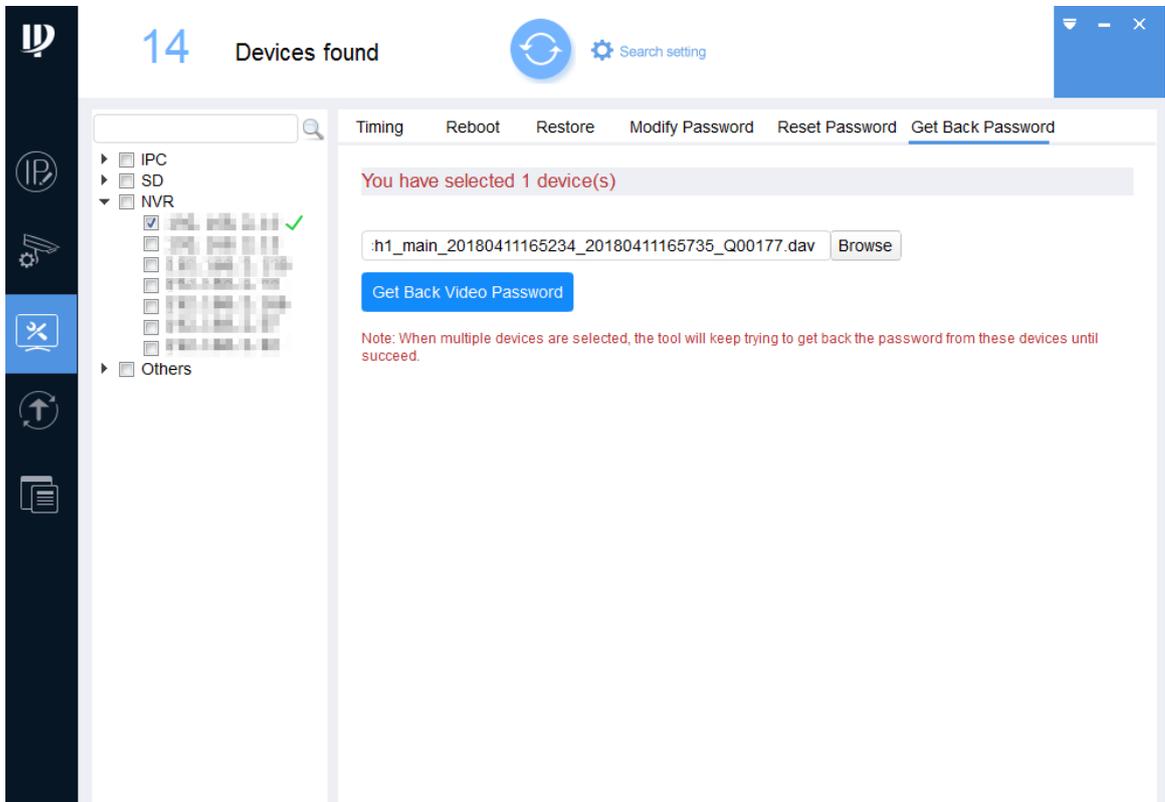


Figure 3-43

3.7 Local Upgrade

You can upgrade one or multiple devices on the PC where the Tool is located.

 NOTE

If the device is disconnected during upgrading, the Tool will prompt the disconnection and the device might reboot.

- If the upgrade progress does not exceed 50%, the upgrade package is not completed. Please research and upgrade again after reconnecting the device.
- If the upgrade progress exceeds 50%, the upgrade package is completed and the device will be upgraded successfully. The upgraded device will display after researching once the device is reconnected.

3.7.1 Upgrading One Device

You can choose this procedure for upgrading one device.

Step 1 Click .

The **Upgrade** screen is displayed. See Figure 3-44.

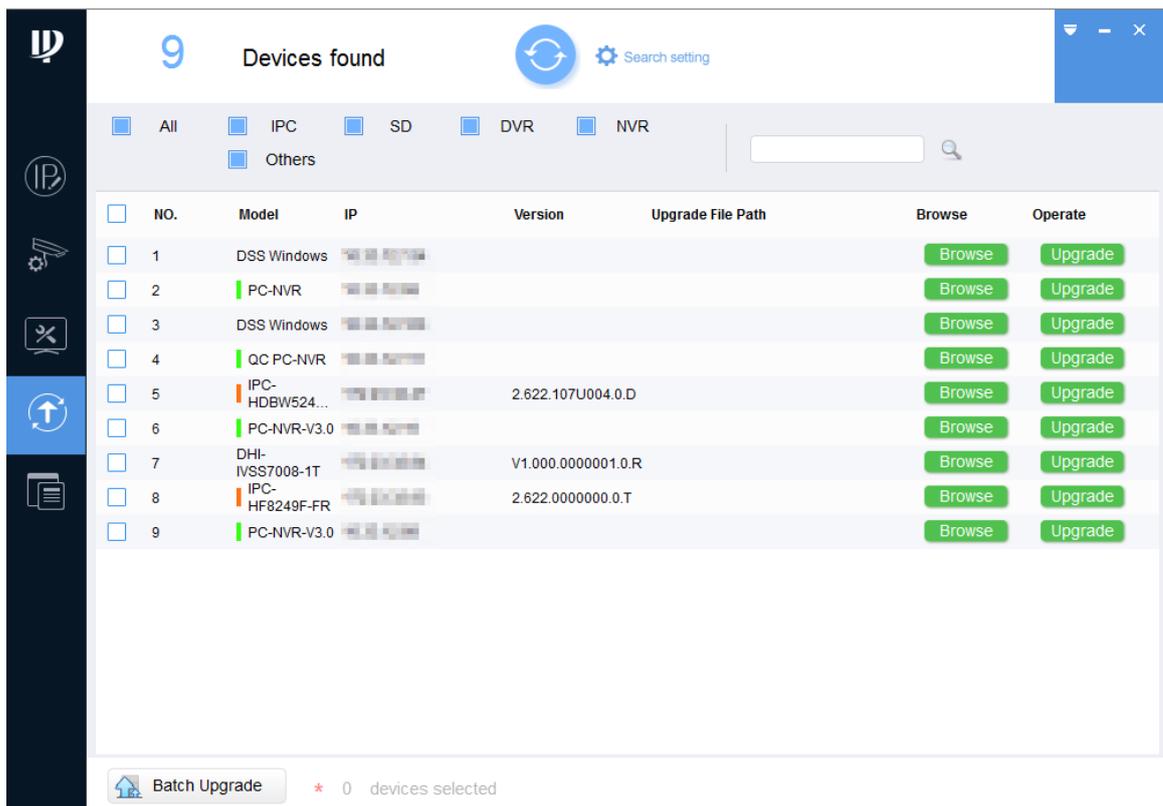


Figure 3-44

Step 2 Click **Browse** next to the device that you want to upgrade, and then select the specific file that needs to be upgraded and click **Open**.

 NOTE

If the device is not in the device list, perform researching again. For the details about how to search devices, see "3.2 Adding Devices."

Step 3 Click **Upgrade** to start upgrading.

After upgrading is completed, a **Notice** dialog box will be displayed indicating the device will be rebooted. Then the device reboots automatically.

3.7.2 Upgrading Devices in Batches

You can upgrade multiple devices to the same software version.

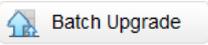
Step 1 Click .

The **Upgrade** screen is displayed.

Step 2 Select the devices that need to be upgraded.

 **NOTE**

- If the device is not in the device list, perform researching again. For the details about how to search devices, see "3.2 Adding Devices."
- Make sure the selected devices are subject to be upgraded to the same software version.

Step 3 Click .

The **Batch Upgrade** dialog box is displayed. See Figure 3-45.

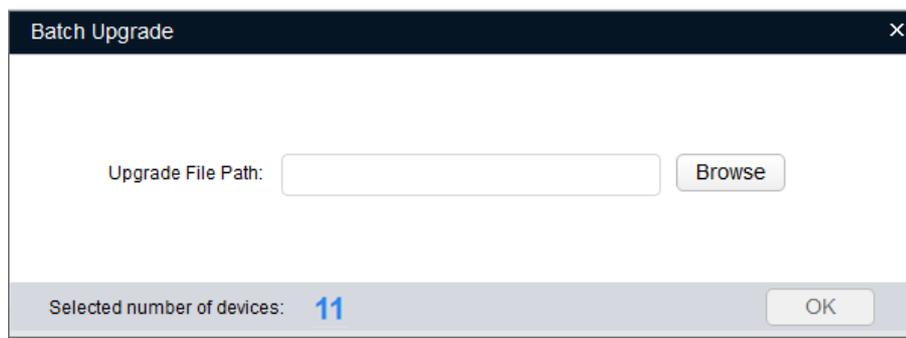


Figure 3-45

Step 4 Click **Browse** to select the files that need to be upgraded.

Step 5 Click **OK** to start upgrading.

3.8 Online Upgrade

You can download upgrade package from the upgrade server to upgrade the device.

3.8.1 Enabling Online Upgrade

The online upgrade is hidden by default and you need to manually enable it.

Step 1 On the main user interface, click , and then select **Setting**.

The **Setting** dialog box is displayed. See Figure 3-46.

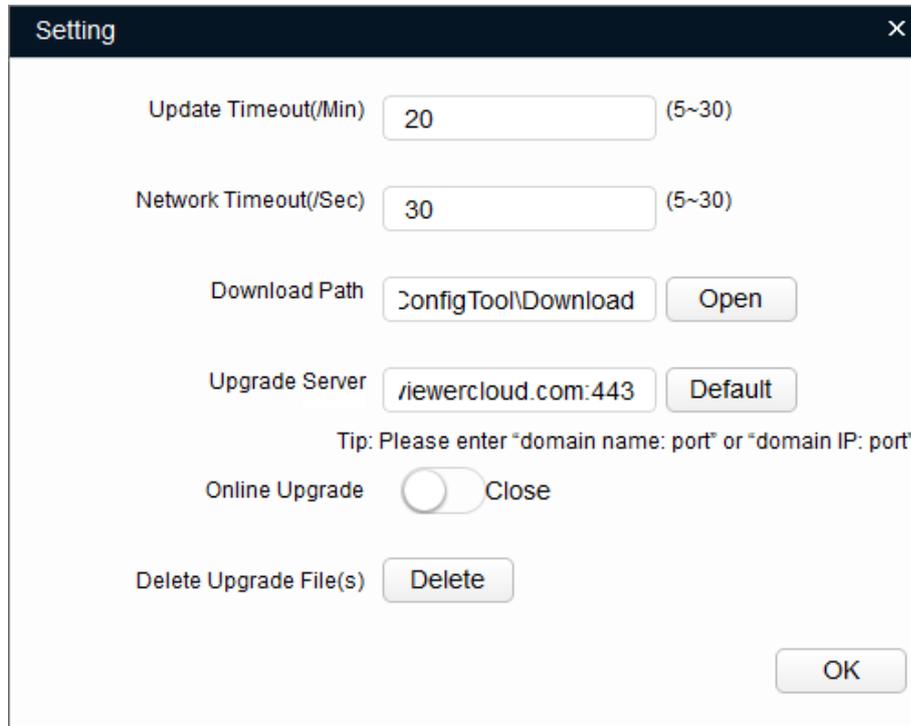


Figure 3-46

Step 2 Set the system parameters. See Table 3-10.

Parameter	Description
Update Timeout (/Min)	The maximum updating time for a single device. When the updating time is longer than the set value, the updating fails.
Network Timeout (/Sec)	The maximum time for network connecting during device updating. When the network connecting time is longer than the set value, the updating stops.
Download Path	The save path for saving the upgrade package downloaded from upgrade server. Click Open to set the save path.
Upgrade Server	The default address for upgrade server. The upgrade server bases on device information to detect whether there is a new version. It is recommended to keep the default address, unless you have deployed another standalone upgrade server within the LAN.
Delete Upgrade File(s)	Click Delete to delete upgrade files under the Download Path .

Table 3-10

Step 3 Enable **Online Upgrade**. See Figure 3-47.

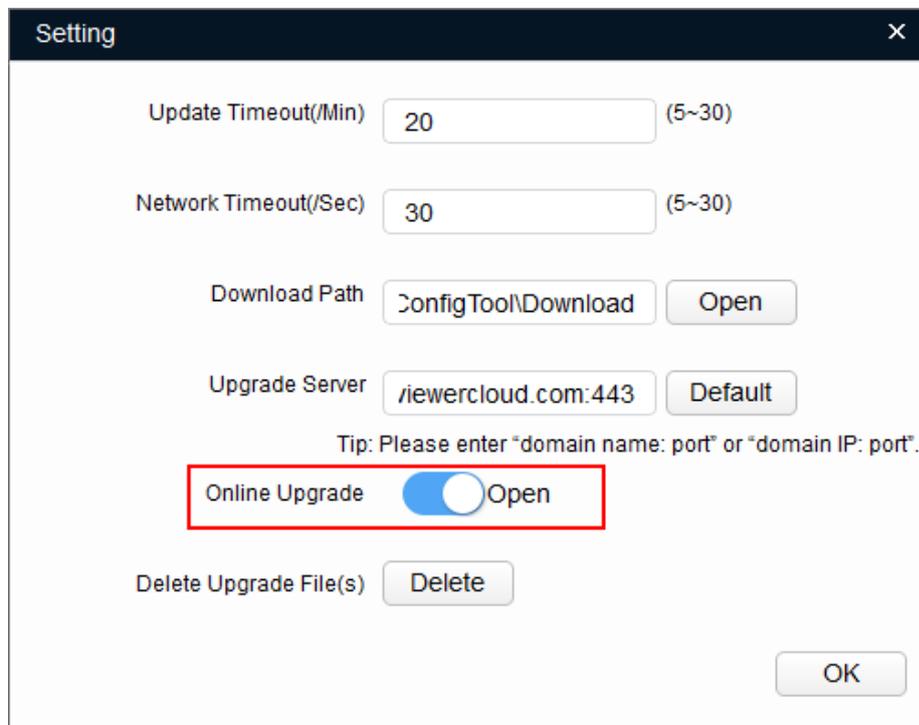


Figure 3-47

Step 4 Click **OK** to complete setting.

The online upgrade icon () appears in the **Menu**. The searched devices display on the **Online upgrade** interface. See Figure 3-48.

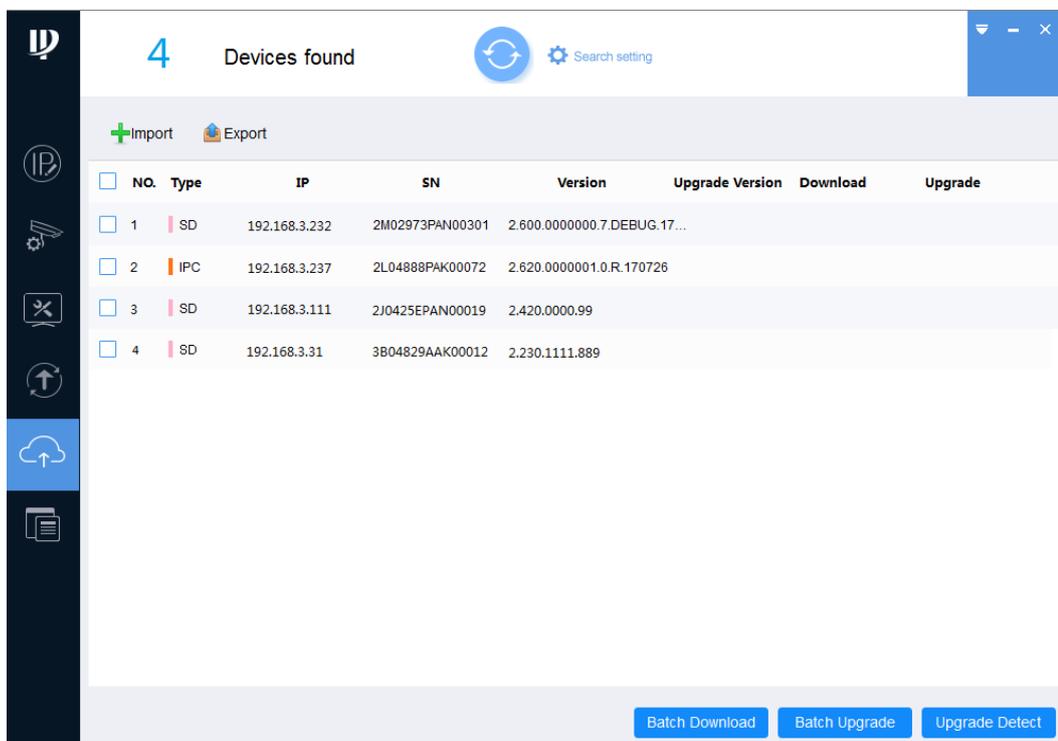


Figure 3-48

3.8.2 Performing Online Upgrade

NOTE

The online upgrade operation such as detecting, downloading, and upgrading, can affect the normal operation of other functions of the Tool. For example, if you modify IP, a **Notice** dialog box will be displayed indicating **Detecting, please wait...**

According to the network features of the PC where the Tool is located and the detected devices the online upgrade operation is divided into synchronous operation and asynchronous operation. Select the upgrade method according to the actual situation.

- Synchronous operation means that you can complete the upgrade detection, upgrade package download and upgrade on the PC where the Tool is located. The applications are as follows:
 - ◇ The PC where the Tool is located and the detected devices have accessed the Internet.
 - ◇ The PC where the Tool is located and the detected devices are located on the same LAN, and the PC has double network card that can access the Internet at the same time.
 - ◇ The PC where the Tool is located and the detected devices are located on the same LAN, and you can change the PC cable to access the Internet.
- Asynchronous operation means that you cannot complete the upgrade operation on the PC where the Tool is located, and you need to migrate the data. The application is as follows:
 - ◇ The PC where the Tool is located and the detected devices are located on the same LAN and neither of them can access the Internet. You can download the upgrade package through the Tool on another PC connected to the Internet.

3.8.2.1 Performing Synchronous Operation

Step 1 Click .

The **Online upgrade** screen is displayed. See Figure 3-49.

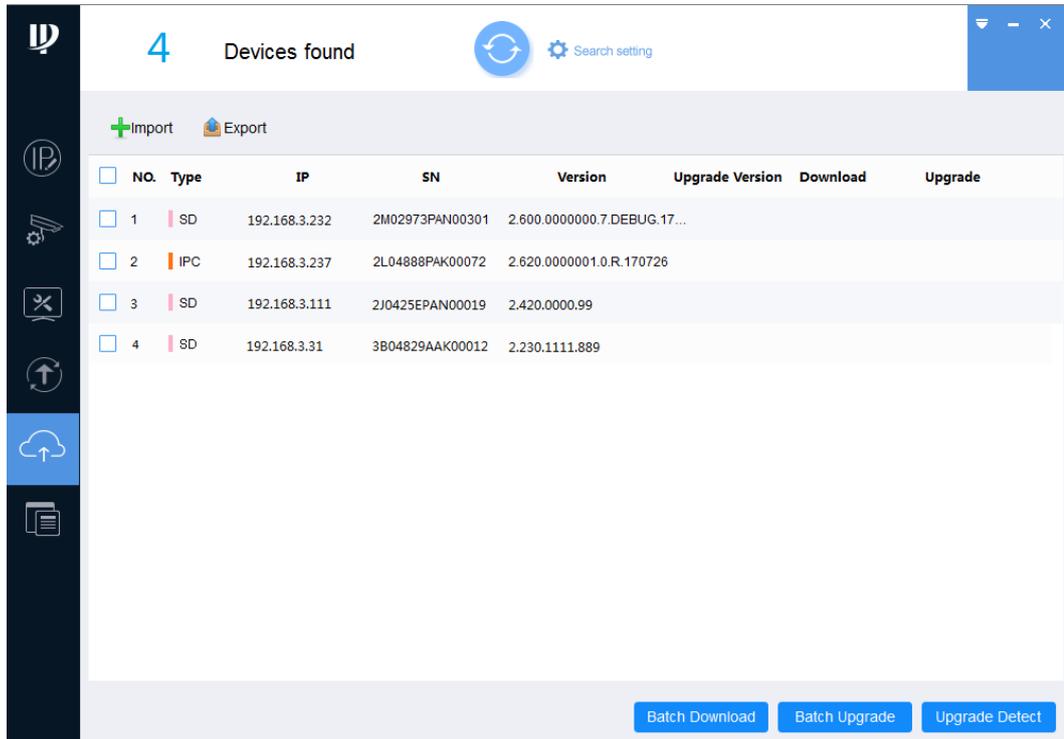


Figure 3-49

Step 2 Confirm that the PC where the Tool is located has accessed the Internet.

Step 3 Select one or multiple devices.

 **NOTE**

If the device is not in the device list, perform researching again. For the details about how to search devices, see "3.2 Adding Devices."

Step 4 Click **Upgrade Detect**.

A **Notice** box will be displayed. See Figure 3-50. Click **Agree**, the **Download** button is displayed after the detection is completed. See Figure 3-51.

 **NOTE**

After clicking **Upgrade Detect**, the button changes to **Stop Checking**. Click **Stop Checking** to stop version detection for all devices.

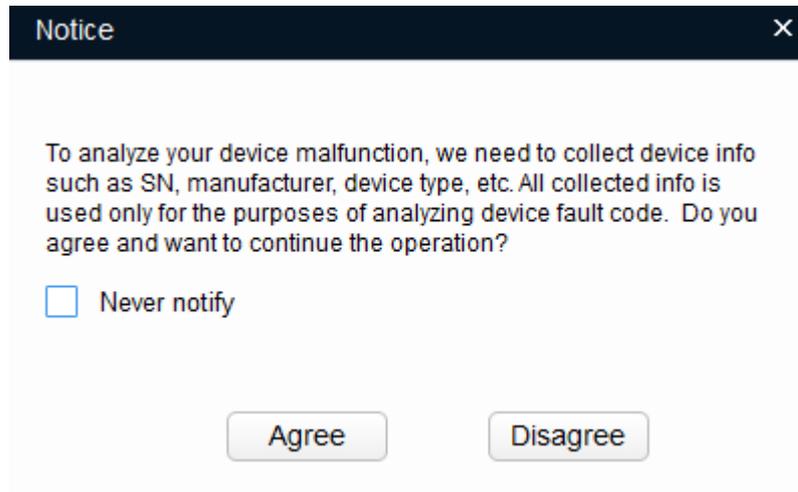


Figure 3-50

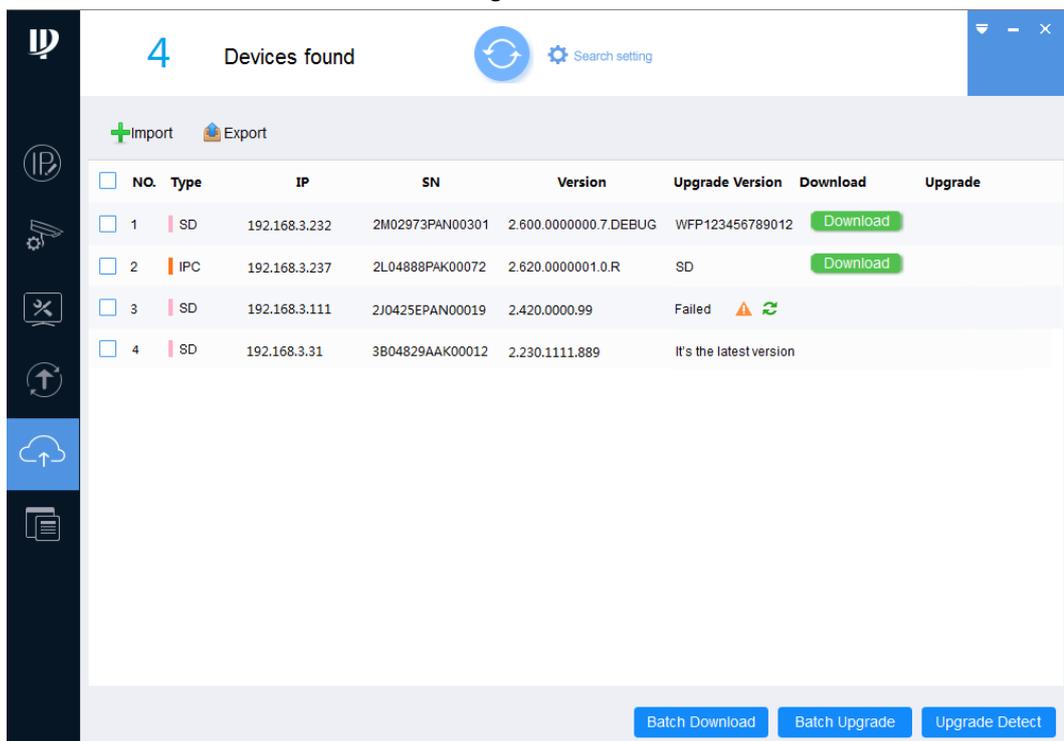


Figure 3-51

NOTE

If the detection is successful, skip Step 5.

Step 5 Click [Warning] to see the details for the failed detection individually.

The **Details** dialog box is displayed.

- If the **Config Result** shows **Connection failed** or **network error, maybe timeout**, please perform upgrade detection again.
- If the **Config Result** shows **Incorrect password**, please perform the following steps:

1. Click [Refresh].

The **Login** dialog box is displayed. See Figure 3-52.

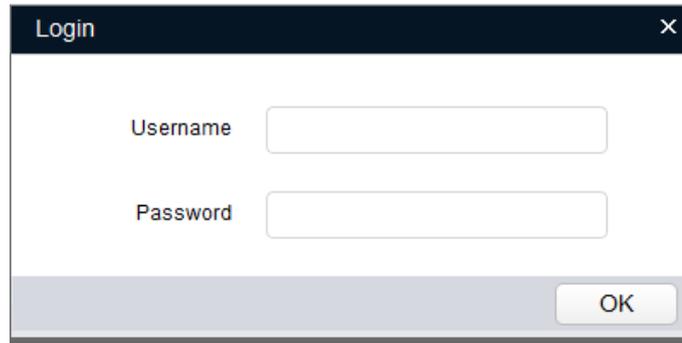


Figure 3-52

2. Enter the user name and password for the device.
3. Click **OK** to start automatic detection.
 - ◇ If succeeded, the **Download** button will display in the **Download** column when there is an upgraded version; and the **Upgrade Version** column will show **It's the latest version** when no upgrade is available.
 - ◇ If failed, click  to see the details. If the **Config Result** still shows **Incorrect password**, please obtain the correct user name and password and repeat the above steps.



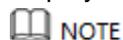
If the password error occurs for multiple times, the user account will be locked.

- If the **Config Result** shows information other than previous the two cases, follow the prompts.

Step 6 Download the upgrade package.

- Download one upgrade package: Click **Download** next to the device that you want to upgrade.
- Download upgrade packages in batches: Select the devices with the **Download** button, and then click **Batch Download**.

A **Notice** box will be displayed. See Figure 3-53. Click **Agree**, the **Upgrade** button is displayed after the downloading is completed. See Figure 3-54.



After clicking **Batch Download**, the button changes to **Stop Downloading**. Click **Stop Downloading** to stop downloading the upgrade package for all devices.

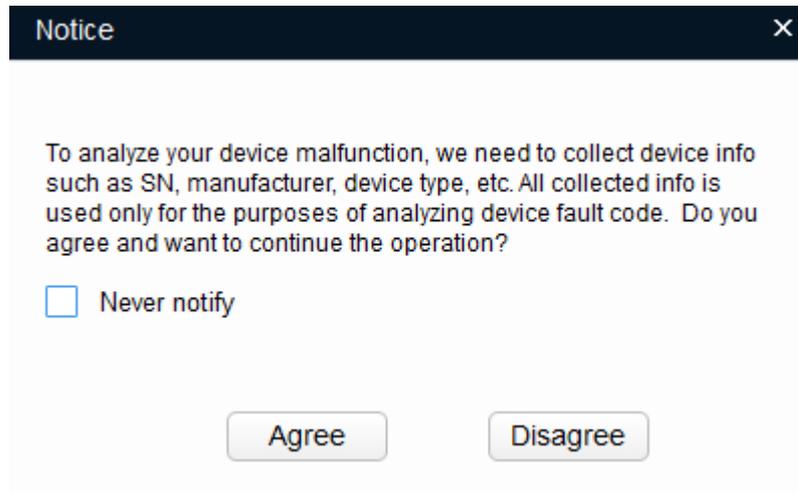


Figure 3-53

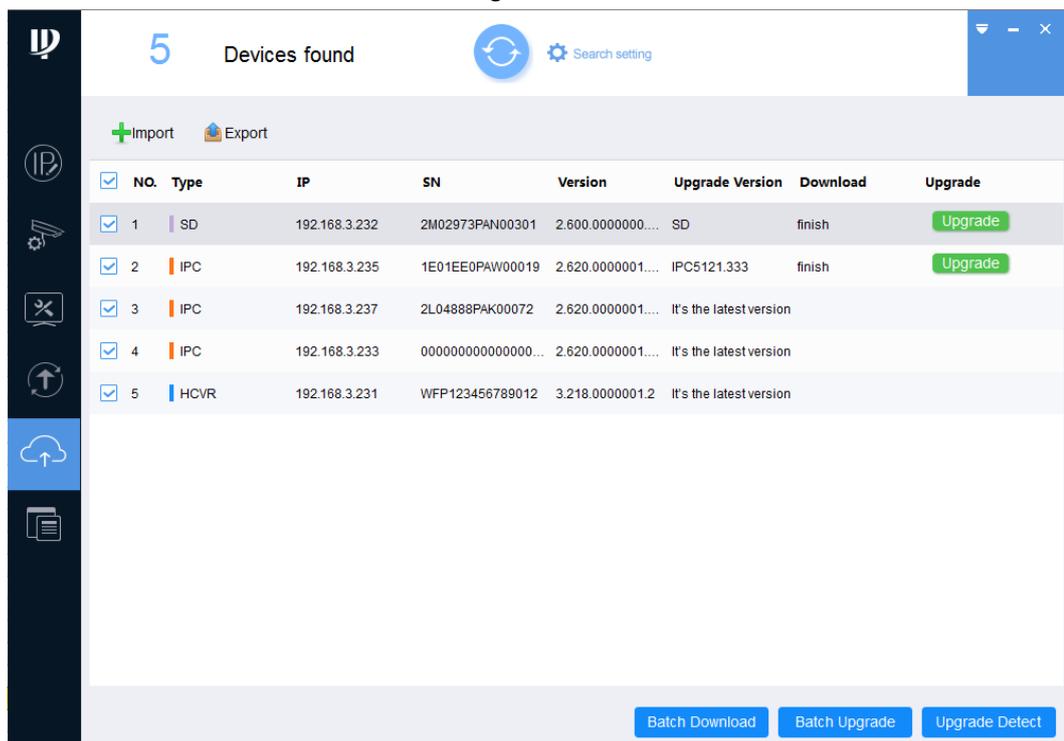


Figure 3-54

Step 7 Upgrade device.

- Upgrade one device: Click **Upgrade** next to the device that you want to upgrade.
- Upgrade devices in batches: Select the devices with the **Upgrade** button, and click **Batch Upgrade**.

NOTE

After clicking **Batch Upgrade**, the button changes to **Stop Upgrading**. Click **Stop Upgrading** to stop upgrading for all devices.

The upgrade result is displayed after the upgrading is completed. See Figure 3-55. Click the success icon (✓) or click the failure icon (⚠) for the details.

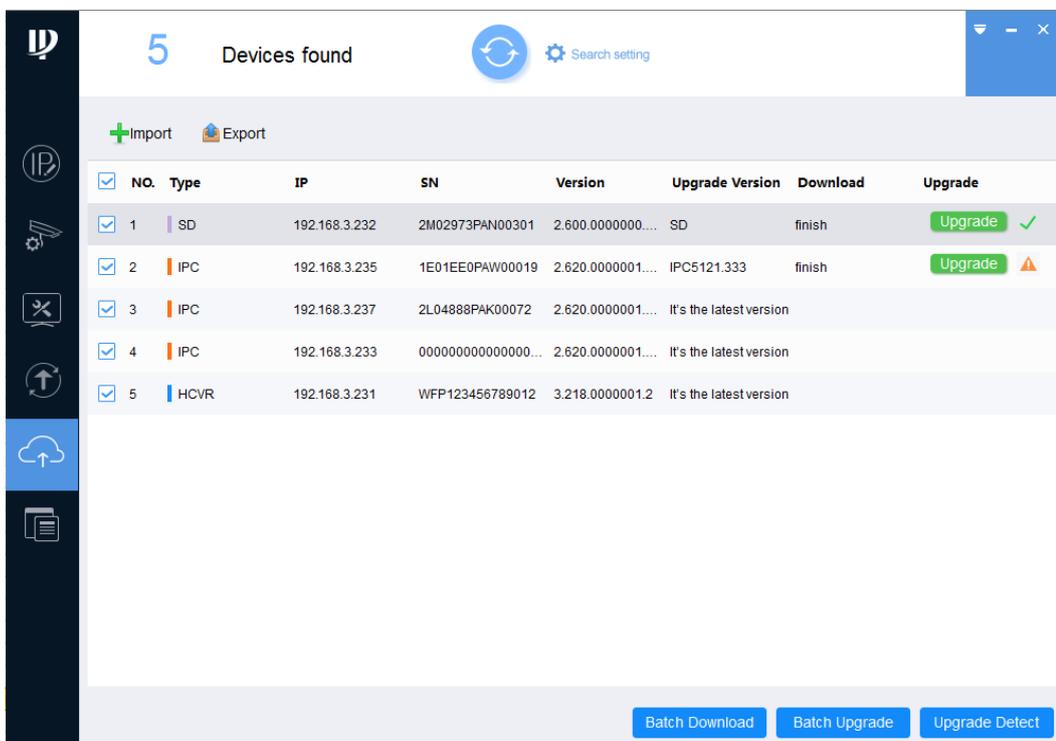


Figure 3-55

3.8.2.2 Performing Asynchronous Operation

Prerequisite:

- Asynchronous operation is applicable to the situation that PC (hereinafter referred to be "PC1") where the Tool is located and the detected devices are located on the same LAN and neither of them can access the Internet. Please prepare another PC (hereinafter referred to be "PC2") that has accessed the Internet and installed the Tool.
- Make sure the user name and password of devices for the asynchronous operation are the same; otherwise the upgrade will fail.

NOTE

The import and export file types mentioned in this section support only **.7z** format.

Exporting PC1 Device Information

Step 1 On the Tool main user interface on PC1, click .

The **Online upgrade** screen is displayed. See Figure 3-56.

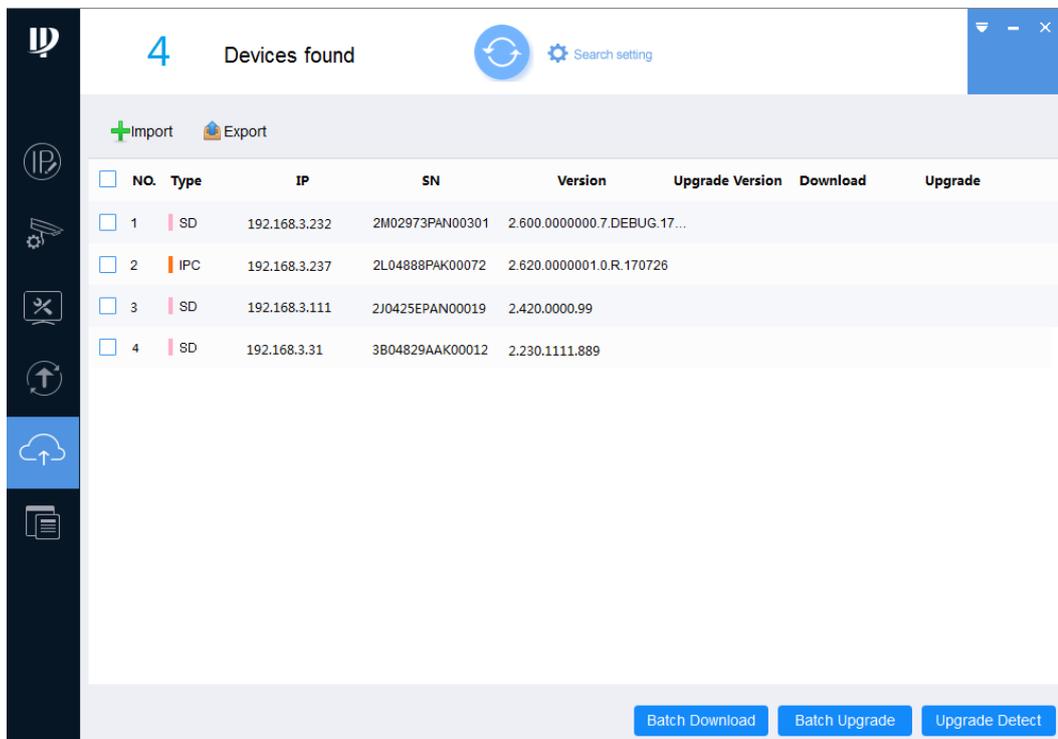


Figure 3-56

Step 2 Select one or multiple devices.

NOTE

If the device is not in the device list, perform researching again. For the details about how to search devices, see "3.2 Adding Devices."

CAUTION

Click **Upgrade Detect** to obtain device information. If you ignore this step and export device information directly, the upgrade detection will fail on the PC2.

Step 3 Click **Upgrade Detect**.

A **Notice** box will be displayed. See Figure 3-57. Click **Agree**, the detection result is displayed after the detection is completed. See Figure 3-58.

NOTE

After clicking **Upgrade Detect**, the button changes to **Stop Detecting**. Click **Stop Detecting** to stop version detection for all devices.

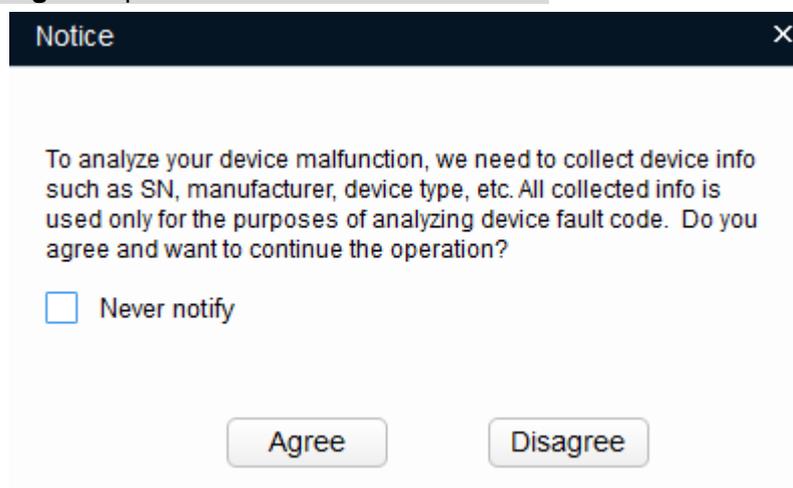


Figure 3-57

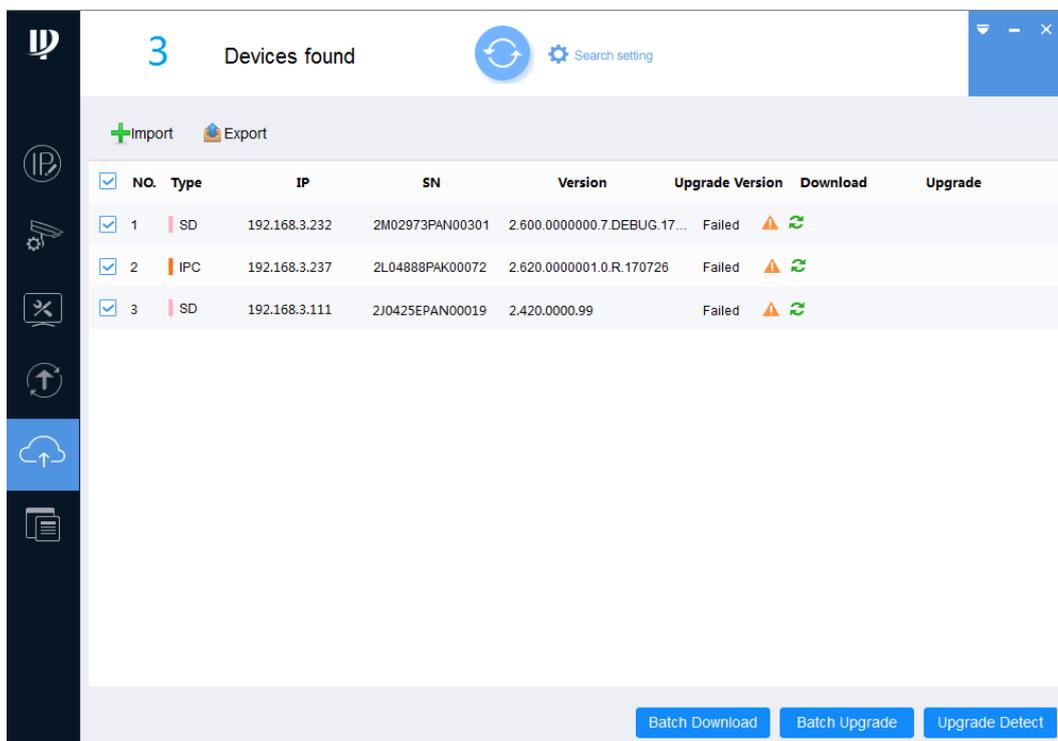


Figure 3-58

Step 4 Click to see the details for the failed detection individually.

The **Details** dialog box is displayed.

- If the **Config Result** shows **Connection failed** or **network error, maybe timeout**, you can export devices information by going to Step 5.
- If the **Config Result** shows **Incorrect password**, you cannot export devices information at once but need to perform the following steps first:

1. Click **Search setting**.

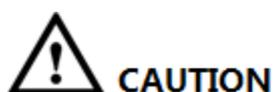
The **Setting** dialog box is displayed.

2. Enter the user name and password for the device.

3. Click **OK** to search device.

4. After search is completed, click **Upgrade Detect** again.

After detection is completed, click to see the details. If the **Config Result** no longer shows **Incorrect password**, you can export devices information by going to see Step 5. Otherwise, obtain the correct user name and password and repeat the above steps.



If the password error occurs for multiple times, the user account will be locked.

- If the **Config Result** shows information other than previous the two cases, follow the prompts.

Step 5 Click **Export**.

The **Save as** dialog box is displayed.

Step 6 Select save path, enter **File name** and then click **Save** to start exporting device information file.

The **Notice** dialog box is displayed after the exporting is completed.

Step 7 Click **OK**.

Importing PC1 Device Information into PC2

Step 1 Copy the exported file from PC1 to PC2 by storage devices such as a USB flash disk.

Step 2 Import PC1 device information into PC2.

1. Launch the Tool, click  on the main user interface and then select **Setting**. The **Setting** dialog box is displayed.
2. Enable **Online Upgrade**. See Figure 3-59.

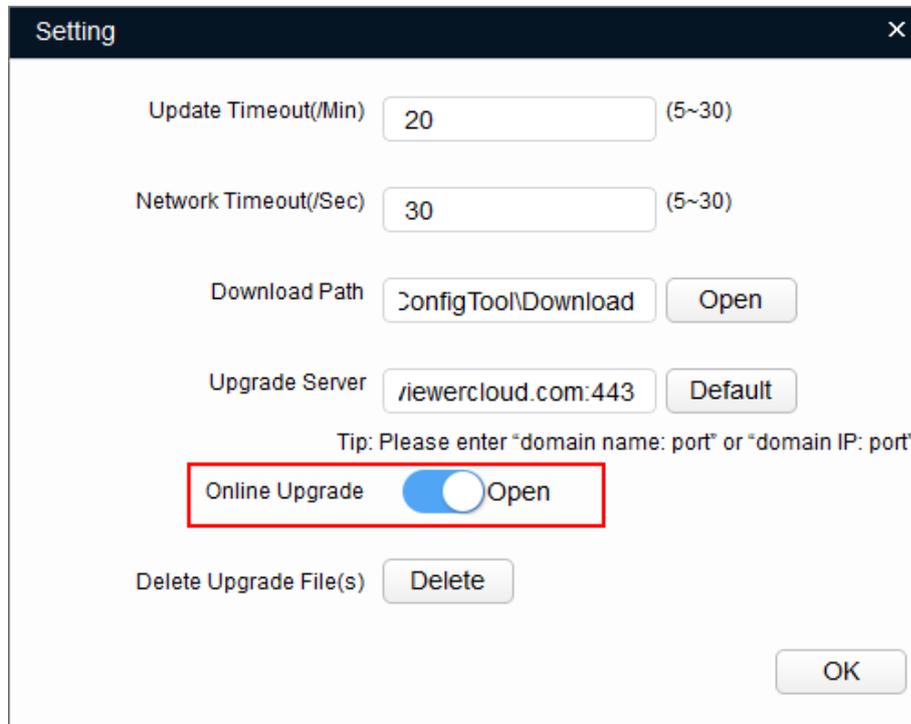


Figure 3-59

3. Click **OK**.
The **Online upgrade** screen is displayed.
4. Click  **Import**.
The **Open** dialog box is displayed.
5. Select the exported file from PC1 and then click **Open** to start importing file.
The **Notice** dialog box is displayed after the importing is completed.
6. Click **OK** to start automatic detection.
The **Download** button is displayed after the detection is completed. See Figure 3-60.

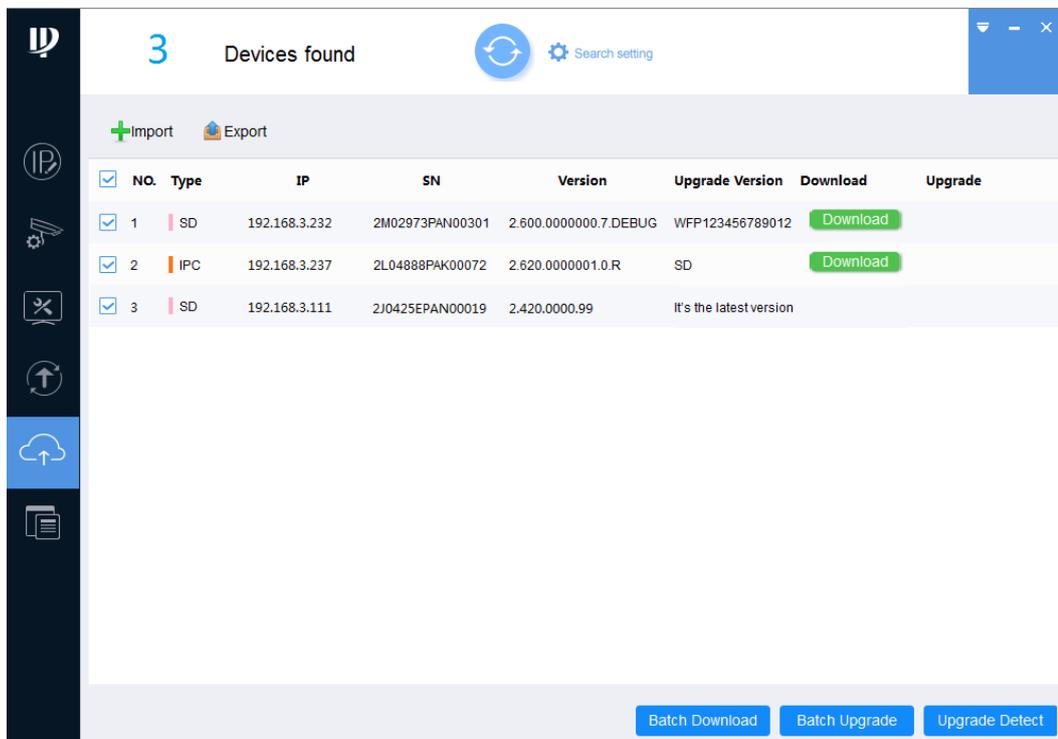


Figure 3-60

Downloading and Exporting Upgrade Package on PC2

Step 1 Select one or multiple devices on the interface shown in Figure 3-60.

Step 2 Download the upgrade package.

- Download one upgrade package: Click **Download** next to the device that you want to upgrade.
- Download upgrade packages in batches: Select the devices with the **Download** button, and then click **Batch Download**.

A **Notice** box will be displayed. See Figure 3-61. Click **Agree**, the **Upgrade** button is displayed after the downloading is completed. See Figure 3-62.

NOTE

After clicking **Batch Download**, the button changes to **Stop Downloading**. Click **Stop Downloading** to stop downloading the upgrade package for all devices.

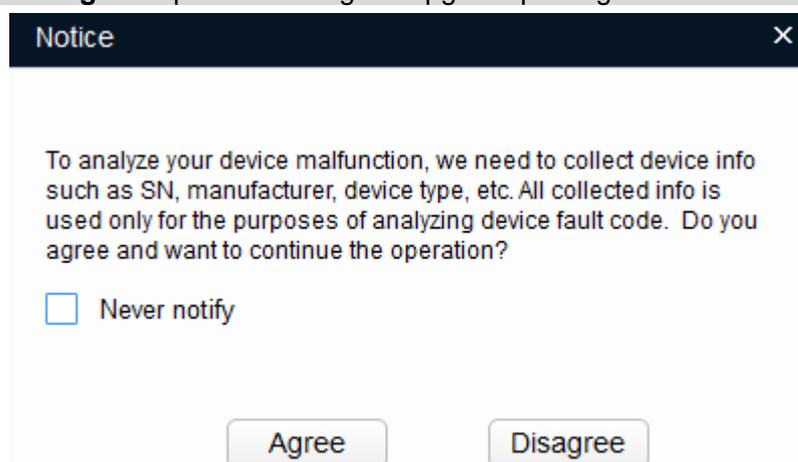


Figure 3-61

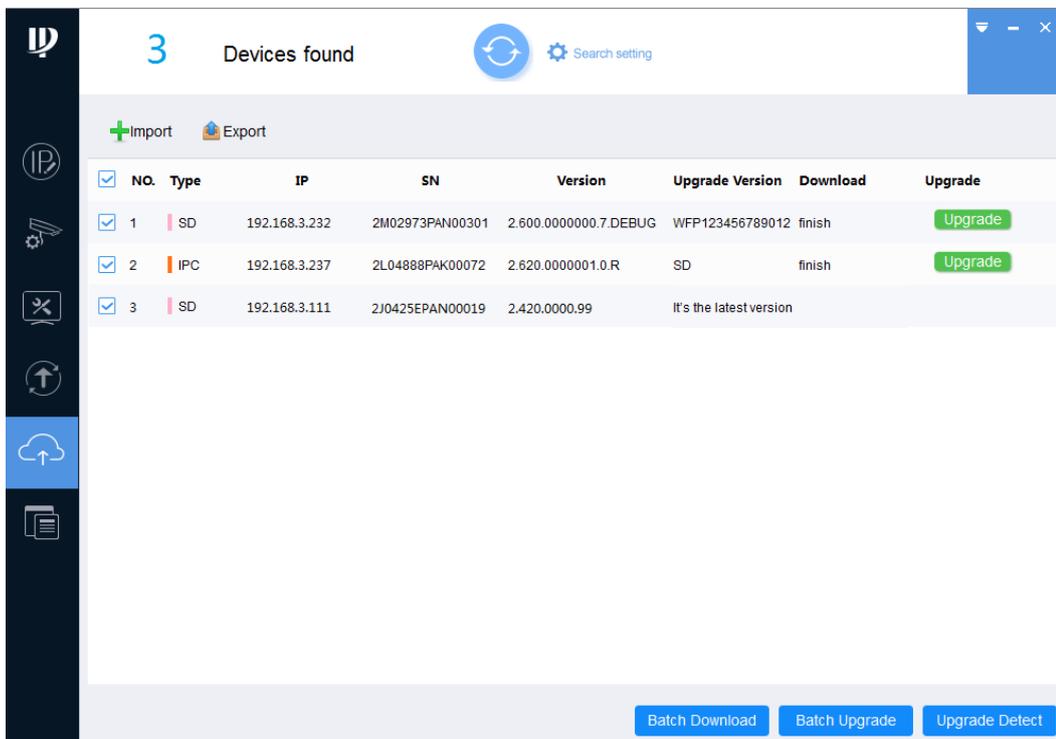


Figure 3-62

Step 3 Click **Export**.

The **Save as** dialog box is displayed.

Step 4 Select save path, enter **File name** and then click **Save** to start exporting file.

The **Notice** dialog box is displayed after the exporting is completed.

Step 5 Click **OK**.

Importing PC2 Upgrade Package into PC1

Step 1 Migrate the exported upgrade package from PC2 to PC1 by storage devices such as a USB flash disk.

Step 2 Upgrade devices on PC1.

1. On **Online upgrade** interface of The Tool, click **Import**.

The **Open** dialog box is displayed.

2. Select the upgrade package file and click **Open** to start importing the file.

The **Notice** dialog box is displayed after the importing is completed.

3. Click **OK**. See Figure 3-63.

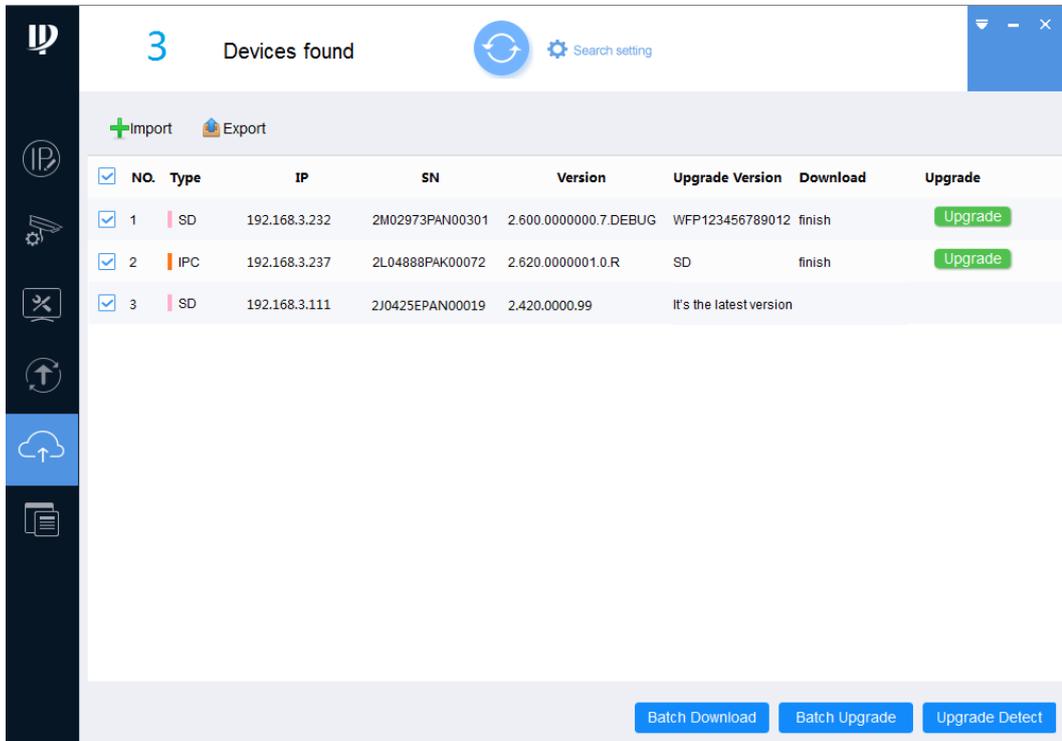


Figure 3-63

4. Upgrade device.

- ◇ Upgrade one device: Click **Upgrade** next to the device that you want to upgrade.
- ◇ Upgrade devices in batches: Select the devices with the **Upgrade** button, and then **Batch Upgrade**.

NOTE

After clicking **Batch Upgrade**, the button changes to **Stop Upgrading**. Click **Stop Upgrading** to stop upgrading for all devices.

The result is displayed next to the device after the upgrading is completed. See Figure 3-64.

Click the success icon (✓) or click the failure icon (⚠) for the details.

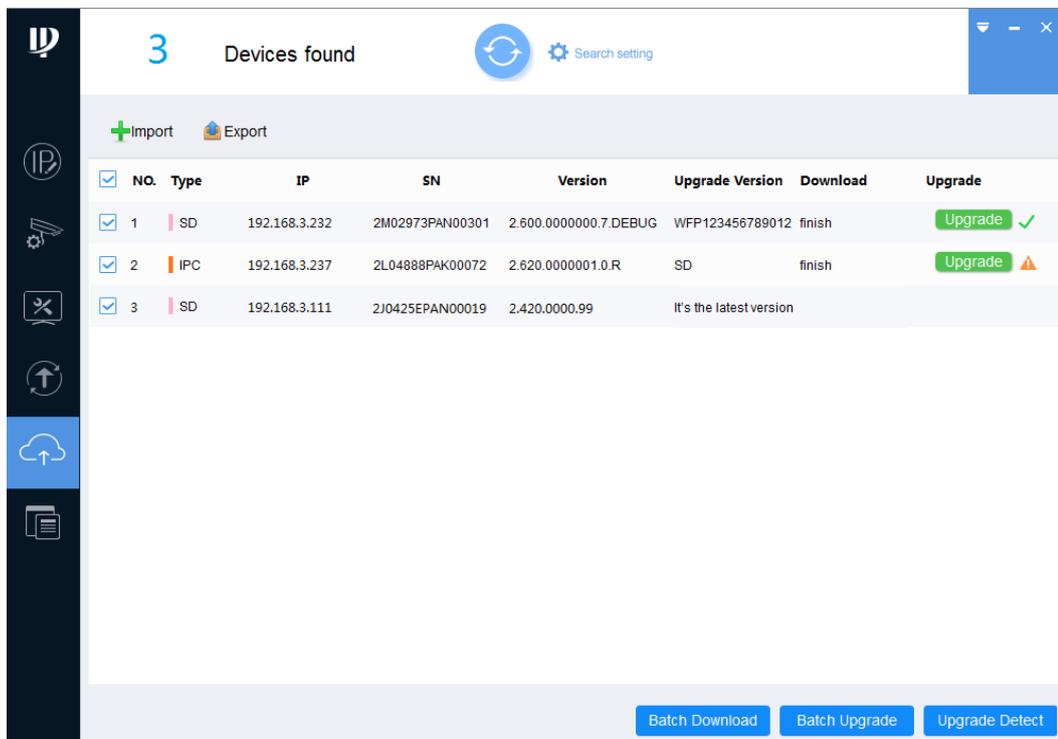


Figure 3-64

3.9 Configuring the Template

You can create and apply the templates.

- Creating the template: Back up or save the video and encoding parameters for the device.
- Applying the template: Restore or batch configuring the video and encoding parameters for the device.

3.9.1 Creating a Template

You can create a template through manual configuration or exporting a device template.

3.9.1.1 Manual Configuration

You can customize the template according to your actual situation.

Step 1 Click .

The **Template Setup** screen is displayed. See Figure 3-65.

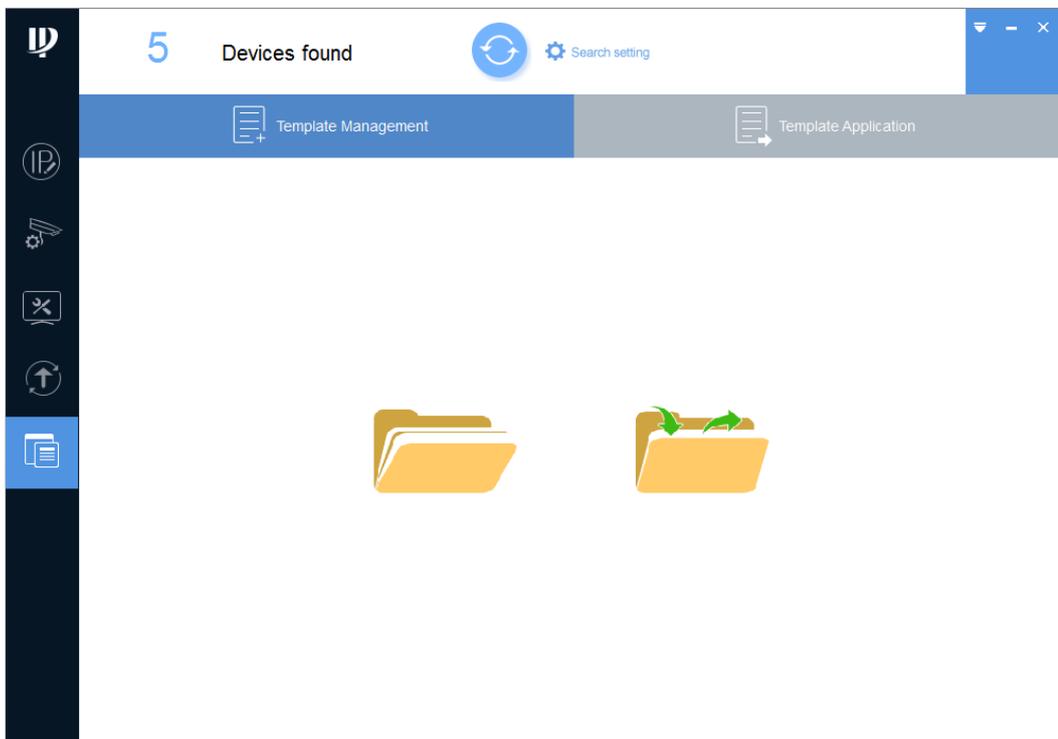


Figure 3-65

Step 2 Manually configure the template.

1. Click .

The **Notice** dialog box is displayed. Click **Cancel**.

The **Template Management** screen is displayed. See Figure 3-66.

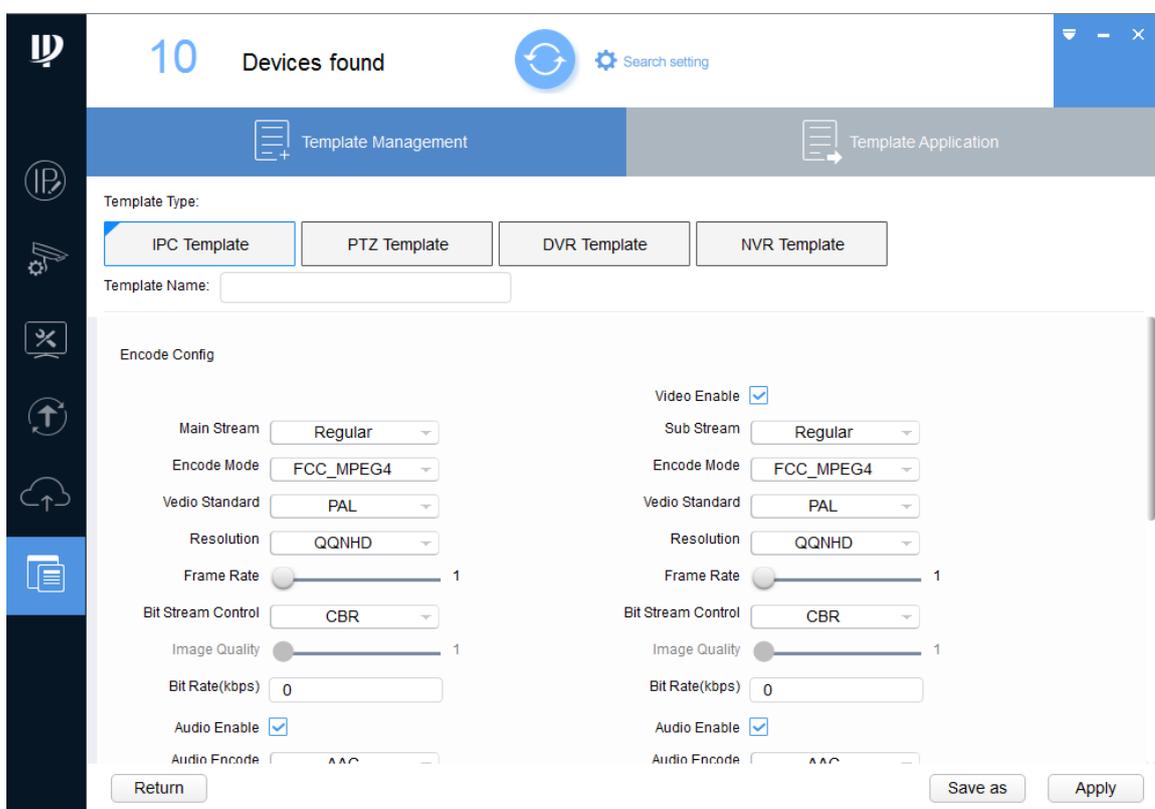


Figure 3-66

2. On the **Template Management** tab, select the template type, enter the template name, and then set the parameters accordingly. See Table 3-11.



After the template configuration is completed, click **Apply** to apply the template to the device. For the details about how to apply the template, see "3.9.2 Applying the Template."

Parameter	Description
Video Enable	Select the Video Enable check box to enable sub stream. Then the device monitors under the sub stream. This function is enabled by default.
Main Stream, Sub Stream	Indicates the stream type that includes Regular, Motion, and Alarm .
Encode Mode	Includes the following video encoding modes: <ul style="list-style-type: none"> ● H.263: Low profile encoding. ● H.264: Main profile encoding ● H.264B: Baseline profile encoding ● H.264H: High profile encoding ● H.265: Main Profile encoding ● MJPG: Short for MJPG. Under this mode, the video image requires higher bit rate to ensure video quality. It is recommended to use the maximum bit rate value to get the best results. ● FCC_MPEG4: MPEG4 profile encoding certified by FCC. ● MS_MPEG4: MPEG4 profile encoding developed by MS. ● MPEG1, MPEG2, MPEG4: Profile encoding that complies with MPEG standard.
Video Standard	Select the video standard for the device: <ul style="list-style-type: none"> ● PAL (Phase Alteration Line) ● NTST (National Television System Committee)
Resolution	Indicates the video resolution. The maximum video resolution might be different dependent on your device model.
Frame Rate	Indicates the total frames per second. The higher the frame rate, the more clear and smooth the image will become.
Bit Stream Control	Includes the following two types of bit rate: <ul style="list-style-type: none"> ● Constant Bit Rate (CBR): The bit rate is fluctuating around the set value without big changes. ● Variable Bit Rate (VBR): The bit rate is changing along with the monitoring environment. <p> NOTE</p> <p>When the compression is set as MJPEG, the bit rate can only be CBR.</p>
Bit Rate (kbps)	Select the suitable value according to the actual situation. You can configure this parameter when the bit rate type is set as CBR.
Audio Enable	The audio function can be enabled only when the video function has been enabled. Select the Audio Enable check box, the bit rate changes to the audio and video combined bit rate; otherwise the bit rate only includes video image.

Parameter	Description
Audio Encode	Indicates audio encoding mode such as G.711A, G.711Mu, G.726, and AAC. The setting of audio encoding mode will simultaneously apply to both audio and voice intercom.
Color Mode	Select the image color mode from Standard, Bright, and Soft for the device.
Brightness	Adjust the image brightness. The bigger the value, the brighter the image is.
Contrast	Adjust the image contrast. The bigger the value is, the contrast between the light area and dark area is more obvious.
Gamma	Adjust the image brightness in a non-linear way to improve the dynamic display range. The bigger the value, the brighter the image will become.
Saturation	Adjust the color shades. The bigger the value, the lighter the color is. This value does not influence the general image lightness.
BLC Mode	<ul style="list-style-type: none"> ● OFF: Turn off the backlight compensation mode. ● BLC: Backlight compensation. In the backlighting environment, the compensation function can avoid silhouette of the dark part when taking a picture. ● WDR: Wide Dynamic Range. In the strong illumination contrast, this function can suppress the area with excessive brightness and compensate the area with excessive darkness so as to make the image clearer in general. ● HLC: Highlight Compensation. This function can weaken the strong light to reach the brightness balance.
Day/Night Mode	Includes the following three options: <ul style="list-style-type: none"> ● Color: Select this option to set the color image. ● Auto: Select this option to automatically set the image to be one of the other two options according to the environment. ● BW: Black and white. Select this option to set image to be black and white.
Profile Management	Includes the following three options: <ul style="list-style-type: none"> ● Normal: the system monitors according to the normal config. ● Full Time: Select Day or Night in Always Enable drop-down list, the system monitors according to the config of Always Enable. ● Schedule: Set some period as day and another period as night, for example, if it sets 0:00~12:00 as day, 12:00~24:00 as night, then the system will monitor by the corresponding config in different periods.

Table 3-11

Step 3 Save the template.

1. Click **Save as**.

The **Save as** dialog box is displayed. See Figure 3-67.

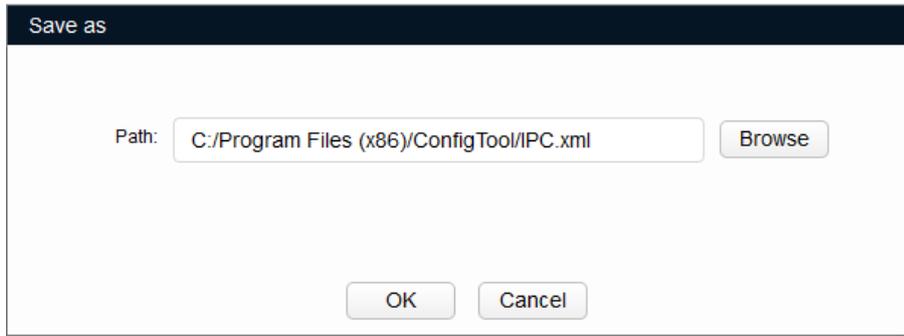


Figure 3-67

2. Click **Browse** to select the save path for the template.
3. Click **OK** to save the template.

3.9.1.2 Exporting the Device Template

You can export the template of the existing device and save it for further use.

Step 1 Click .

The **Template Setup** screen is displayed.

Step 2 Export the template.

1. Click .

The **Notice** dialog box is displayed. Click **OK**.

The **Export** screen is displayed. See Figure 3-68.

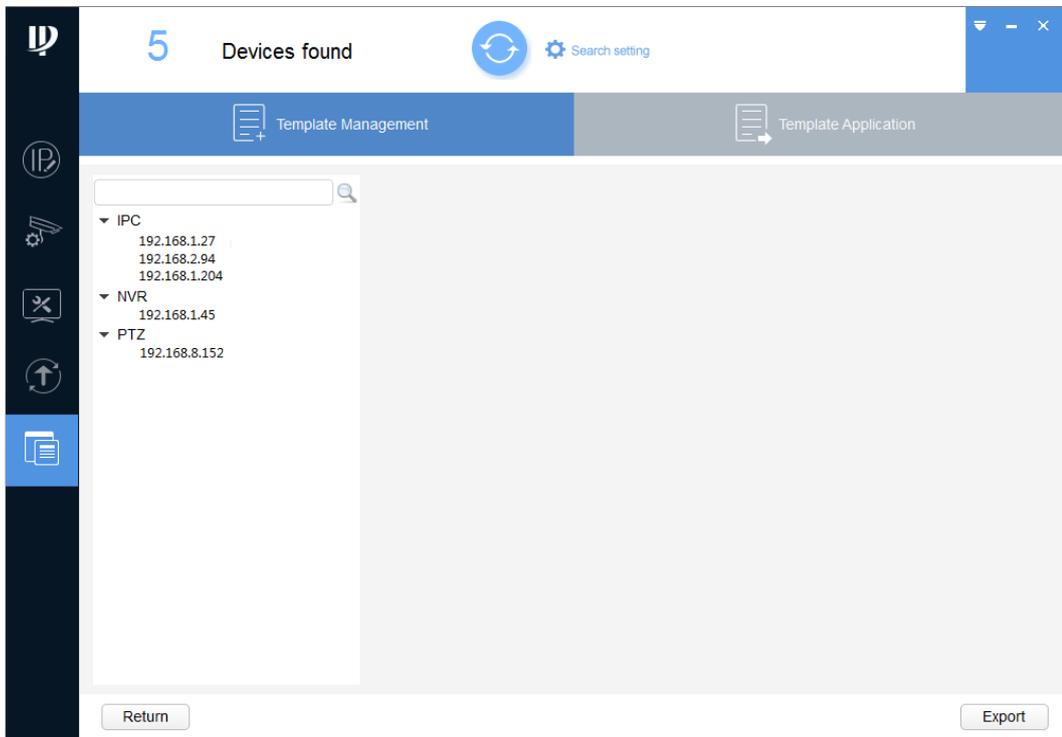


Figure 3-68

2. Select the device and click **Export**.
The **Export** dialog box is displayed. Click **OK** to start exporting.
After exporting is completed, the **Template Management** screen is displayed. See Figure 3-69.

 NOTE

If the device is not in the device list, perform researching again. For the details about how to search devices, see "3.2 Adding Devices."

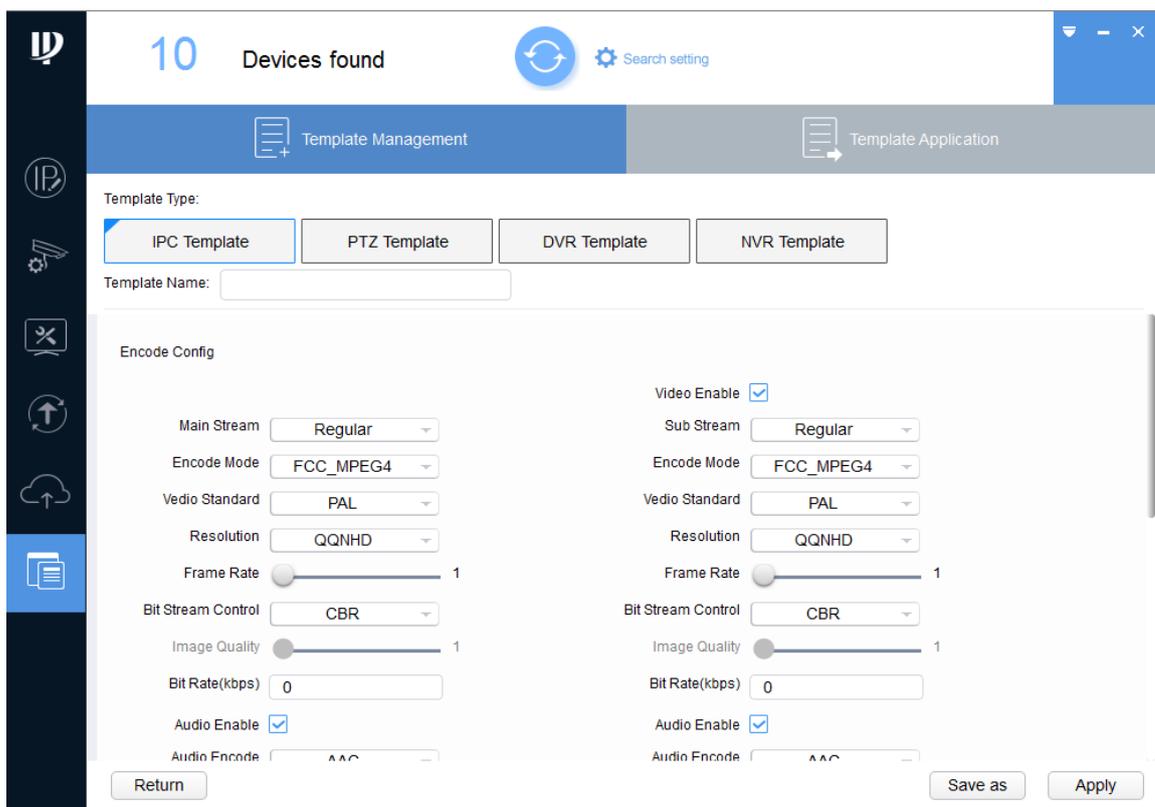


Figure 3-69

3. Select the template type, type the template name, and then set the parameters accordingly.

 NOTE

After the template configuration is completed, click **Apply** to apply the template to the device. For the details about applying the template, see "3.9.2 Applying the Template."

Step 3 Save the template.

1. Click **Save as**.

The **Save as** dialog box is displayed. See Figure 3-70.

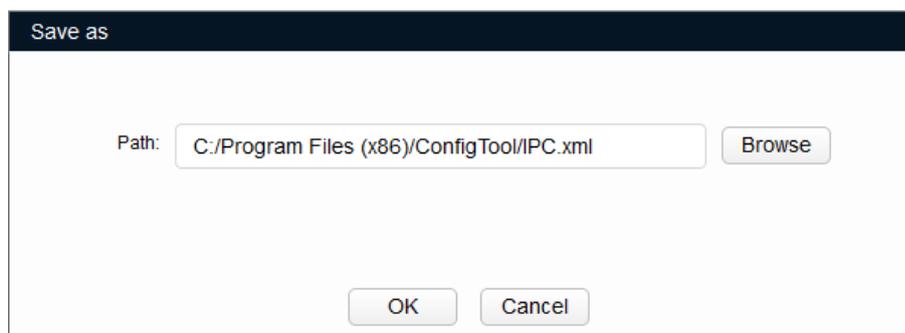


Figure 3-70

2. Click **Browse** to select the save path for the template.
3. Click **OK** to save the template.

3.9.2 Applying the Template

You can load the template to restore or batch configuring the video parameters and encoding parameters for the device.

Step 1 Click .

The **Template Setup** screen is displayed. See Figure 3-71.

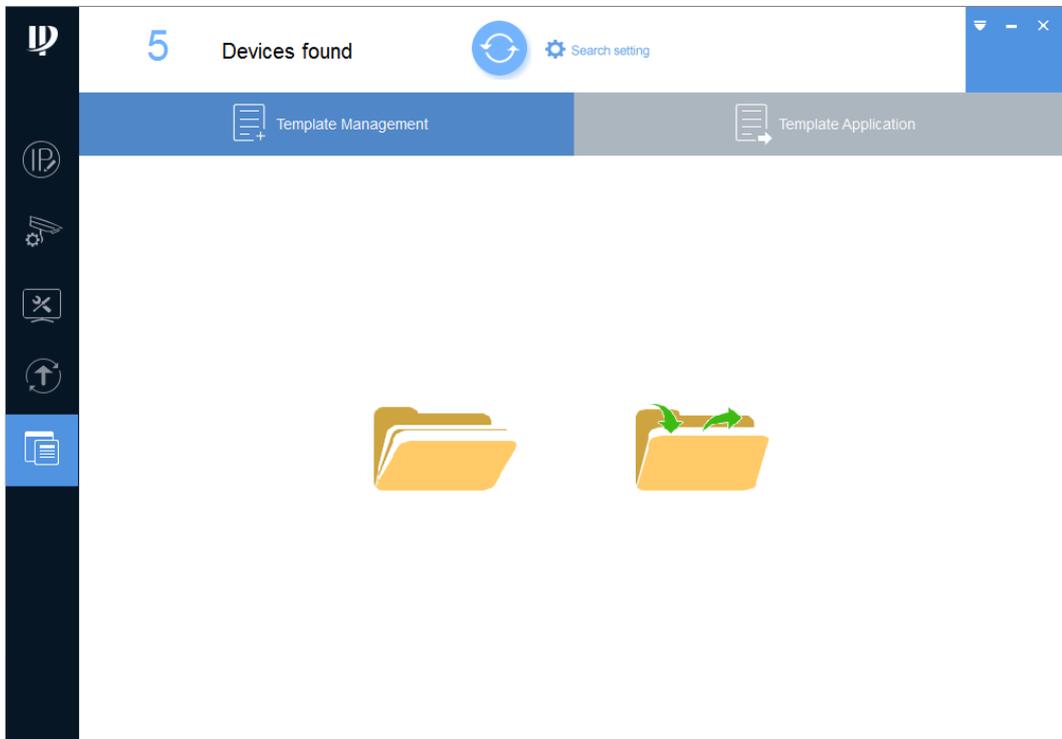


Figure 3-71

Step 2 Load the template.

1. Click .

The **Load Template** dialog box is displayed. See Figure 3-72.

 **NOTE**

Make sure the template is already existing, if not, for the details about how to create a template, see "3.9.1 Creating a Template."

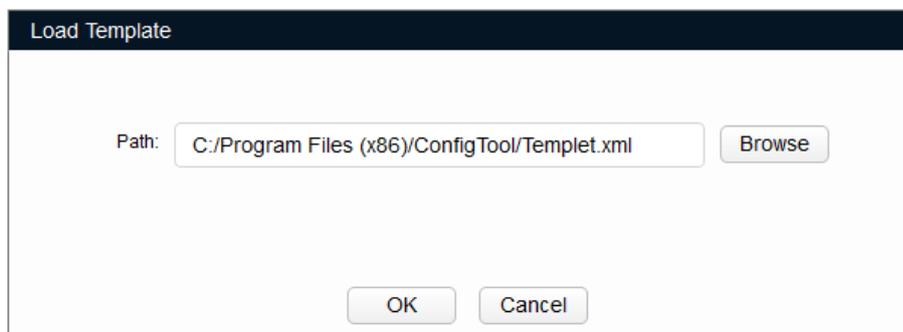


Figure 3-72

2. Click **Browse** to select the template.
3. Click **OK**.

The **Template Management** screen is displayed. See Figure 3-73.

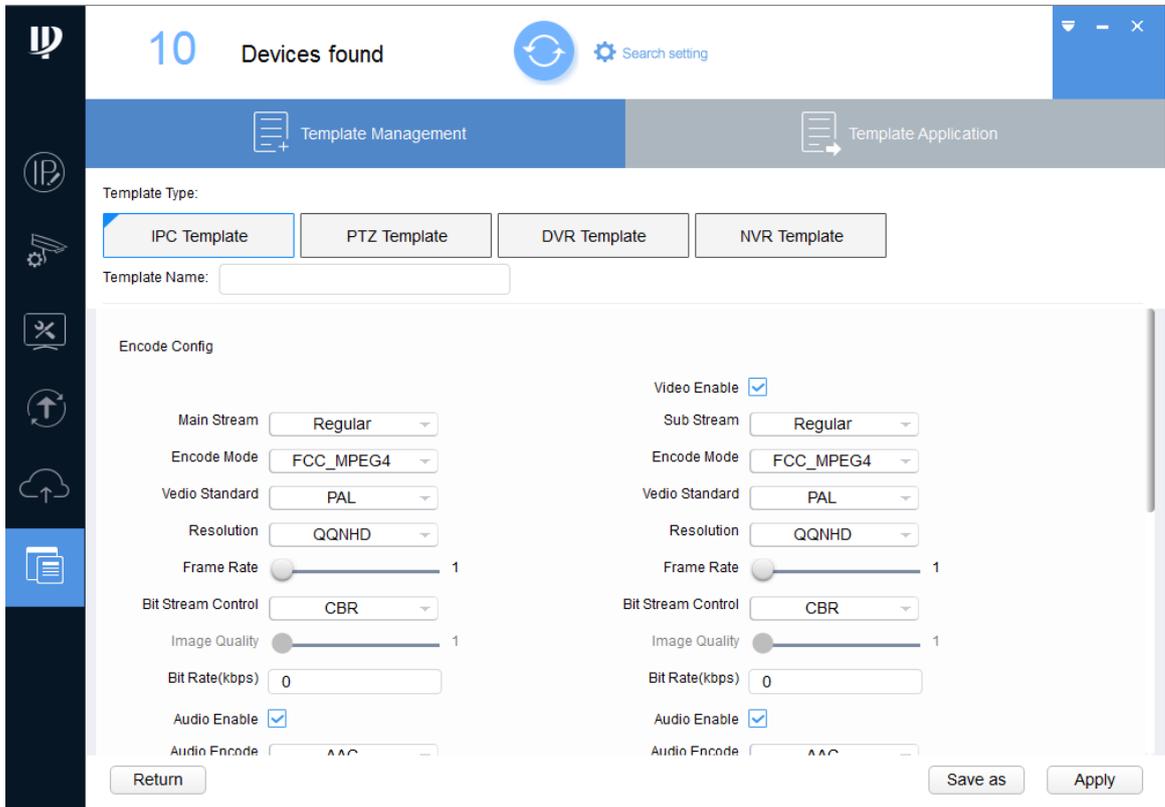


Figure 3-73

Step 3 Apply the template.

1. Click the **Template Application** tab.

The **Template Application** screen is displayed. See Figure 3-74.

NOTE

- Click **Other Template** to switch template.
- If the device is not in the device list, perform researching again. For the details about how to search devices, see "3.2 Adding Devices."

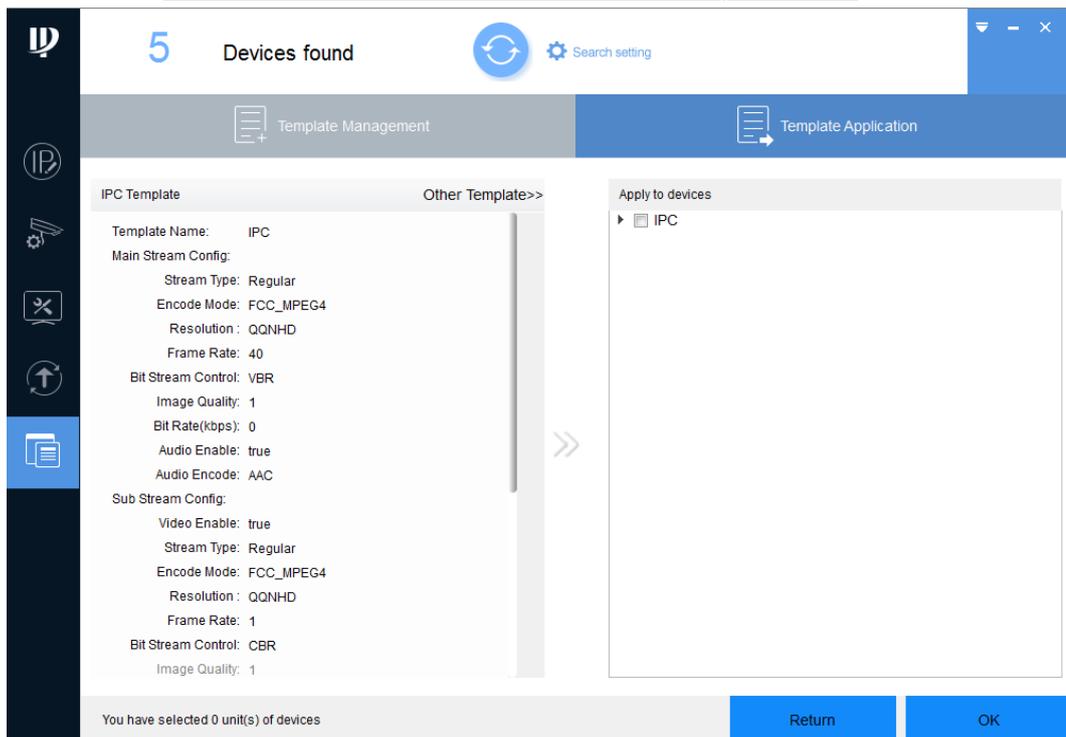


Figure 3-74

2. Select the one or multiple devices and click **OK**.

The **Application Template** dialog box is displayed. Click **OK** to start applying the template.

The result is displayed next to the device after applying is completed. See Figure 3-75.

Click the success icon (✓) or click the failure icon (⚠) for the details.

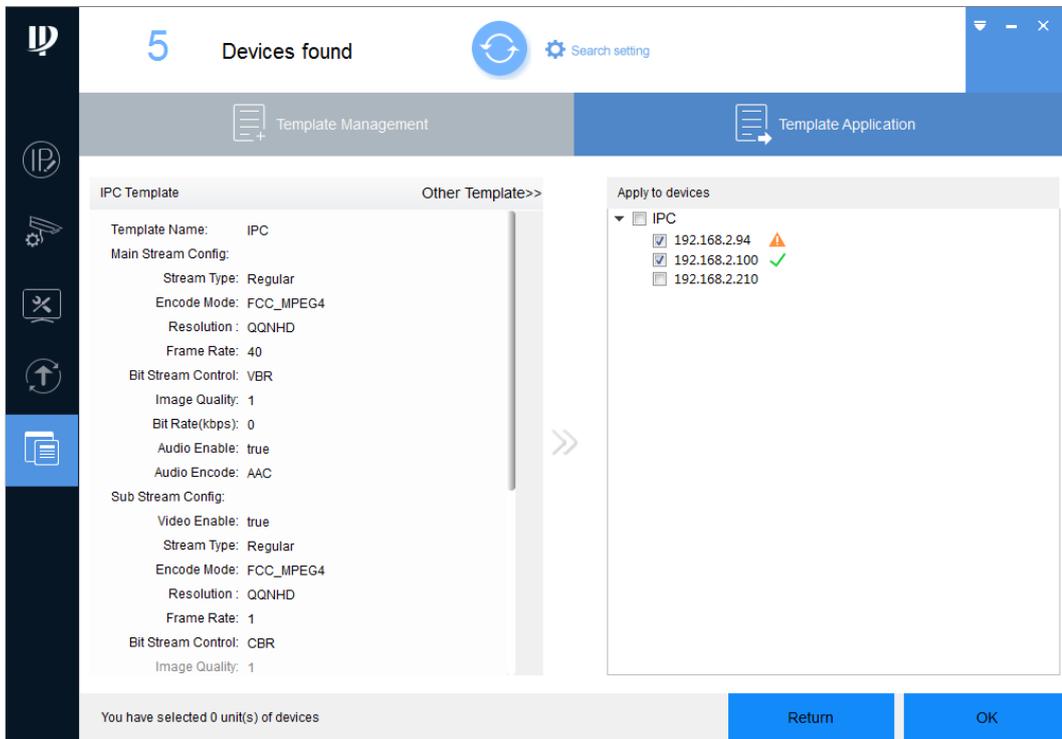


Figure 3-75