

# EZTools 3.0

## User Manual

# Disclaimer and Safety Warnings

## Copyright Statement

©2011-2024 Zhejiang Uniview Technologies Co., Ltd. All rights reserved.

No part of this manual may be copied, reproduced, translated or distributed in any form or by any means without prior consent in writing from Zhejiang Uniview Technologies Co., Ltd (referred to as Uniview or us hereafter).

The product described in this manual may contain proprietary software owned by Uniview and its possible licensors. Unless permitted by Uniview and its licensors, no one is allowed to copy, distribute, modify, abstract, decompile, disassemble, decrypt, reverse engineer, rent, transfer, or sublicense the software in any form or by any means.

## Trademark Acknowledgements

 are trademarks or registered trademarks of Uniview.

All other trademarks, products, services and companies in this manual or the product described in this manual are the property of their respective owners.

## Export Compliance Statement

Uniview complies with applicable export control laws and regulations worldwide, including that of the People's Republic of China and the United States, and abides by relevant regulations relating to the export, re-export and transfer of hardware, software and technology. Regarding the product described in this manual, Uniview asks you to fully understand and strictly abide by the applicable export laws and regulations worldwide.

## Privacy Protection Reminder

Uniview complies with appropriate privacy protection laws and is committed to protecting user privacy. You may want to read our full privacy policy at our website and get to know the ways we process your personal information. Please be aware, using the product described in this manual may involve the collection of personal information such as face, fingerprint, license plate number, email, phone number, GPS. Please abide by your local laws and regulations while using the product.

## About This Manual

- This manual is intended for multiple product models, and the photos, illustrations, descriptions, etc, in this manual may be different from the actual appearances, functions, features, etc, of the product.
- This manual is intended for multiple software versions, and the illustrations and descriptions in this manual may be different from the actual GUI and functions of the software.
- Despite our best efforts, technical or typographical errors may exist in this manual. Uniview cannot be held responsible for any such errors and reserves the right to change the manual without prior notice.
- Users are fully responsible for the damages and losses that arise due to improper operation.
- Uniview reserves the right to change any information in this manual without any prior notice or indication. Due to such reasons as product version upgrade or regulatory requirement of relevant regions, this manual will be periodically updated.

# Contents

1 Introduction .....	1
2 Device Management .....	2
2.1 Add Device .....	2
2.1.1 Search Device .....	2
2.1.2 Add Device Manually .....	3
2.2 Basic Operations .....	3
2.2.1 Edit Device .....	3
2.2.2 View Device Details .....	4
2.2.3 Configure Cloud Service .....	4
2.2.4 Access Device's Web Interface .....	6
2.2.5 Delete Device .....	6
2.3 Upgrade .....	6
2.3.1 Upgrade Config .....	6
2.3.2 Upgrade Device .....	7
2.3.3 Upgrade Channel .....	10
2.3.4 Cancel Upgrade .....	10
2.3.5 Export Upgrade Report .....	10
2.4 Change Device Password .....	10
2.5 Modify Network Parameters .....	11
2.6 Configuration .....	12
2.6.1 Basic Configuration .....	12
2.6.2 Advanced Configuration .....	16
2.7 System Configuration .....	24
2.7.1 Restart Device .....	24
2.7.2 Restore Defaults .....	24
2.7.3 Restore Factory Defaults .....	24
2.7.4 Device Maintenance .....	24
2.8 Export Device List .....	25
2.9 More .....	25
2.9.1 Modify Device Names .....	25
2.9.2 Modify OSDs .....	26
2.9.3 Server Config .....	27
2.10 Other Operations .....	27
2.10.1 Reset Device Password .....	27

2.10.2 Select Multiple Devices .....	28
2.10.3 Refresh Device List .....	28
2.10.4 Filter Devices .....	28
2.10.5 Sort Devices .....	29
<b>3 NVR Channel Management</b> .....	<b>29</b>
3.1 Add NVR Channel .....	29
3.2 Delete NVR Channel .....	29
<b>4 Capacity Calculation</b> .....	<b>30</b>
4.1 Add Devices for Calculation .....	30
4.2 Calculate Retention Time .....	31
4.3 Calculate Disks Needed .....	33
4.4 Other Operations .....	35
<b>5 Client Configuration</b> .....	<b>36</b>
<b>6 Application Center</b> .....	<b>36</b>

# 1 Introduction

This tool is used to manage and configure IPCs, NVRs, and display control devices on local area network (LAN). Major functions are listed in the table below.



## NOTE!

Display control devices only support login, changing password, modification of network parameters, and local upgrade. EC encoders also support channel configuration.

Item	Function
Add Device	<ul style="list-style-type: none"><li>● Search Device: Searches for devices within a specified network segment.</li><li>● Add Device Manually: Searches for a device with a known IP address.</li></ul>
Basic Operations	Basic operations include: <ul style="list-style-type: none"><li>● Edit device settings</li><li>● View device details</li><li>● Configure the cloud service</li><li>● Access a device's web interface</li><li>● Export device list</li></ul>
Change Device Password	Change a device's login password.
Modify Network Parameters	Modify a device's network parameters.
Configuration	<ul style="list-style-type: none"><li>● Basic Configuration: Configure the device name, system time, network, DNS, port, SNMP and ONVIF for a device.</li><li>● Advanced Configuration: Configure image, encoding, OSD, audio, and motion detection for a channel.</li></ul>
System Configuration	System configuration include: <ul style="list-style-type: none"><li>● Restart device</li><li>● Restore defaults</li><li>● Restore factory defaults</li><li>● Perform device maintenance</li></ul>
Upgrade	<ul style="list-style-type: none"><li>● Template File: Use a file that specifies paths to upgrade packages on the computer to upgrade various types of devices.</li><li>● Online Upgrade: Obtain an upgrade package from the cloud to upgrade the connected devices.</li><li>● File Upgrade: Upload an upgrade file to upgrade devices of the same type.</li></ul>
NVR Channel Management	Adds or deletes cameras connected to an NVR (also referred to as NVR channels).
Capacity Calculation	Calculates the required hard disk space, number of hard disks, and recording time.

Note: Before you start, make sure your devices and the computer running this tool are connected by a network.

# 2 Device Management

## 2.1 Add Device

When you log in for the first time or when the device list is empty, the tool will automatically search for devices on the same network segment as the PC and then list the discovered devices.

This section describes how to add devices to the tool for management and configuration. You can search devices or add devices manually.

### 2.1.1 Search Device

1. Click **Search**. A page as shown below appears. The devices on the same network segment as the computer are listed.



#### NOTE!

The search page always appears when you log in for the first time or when no devices have been added.

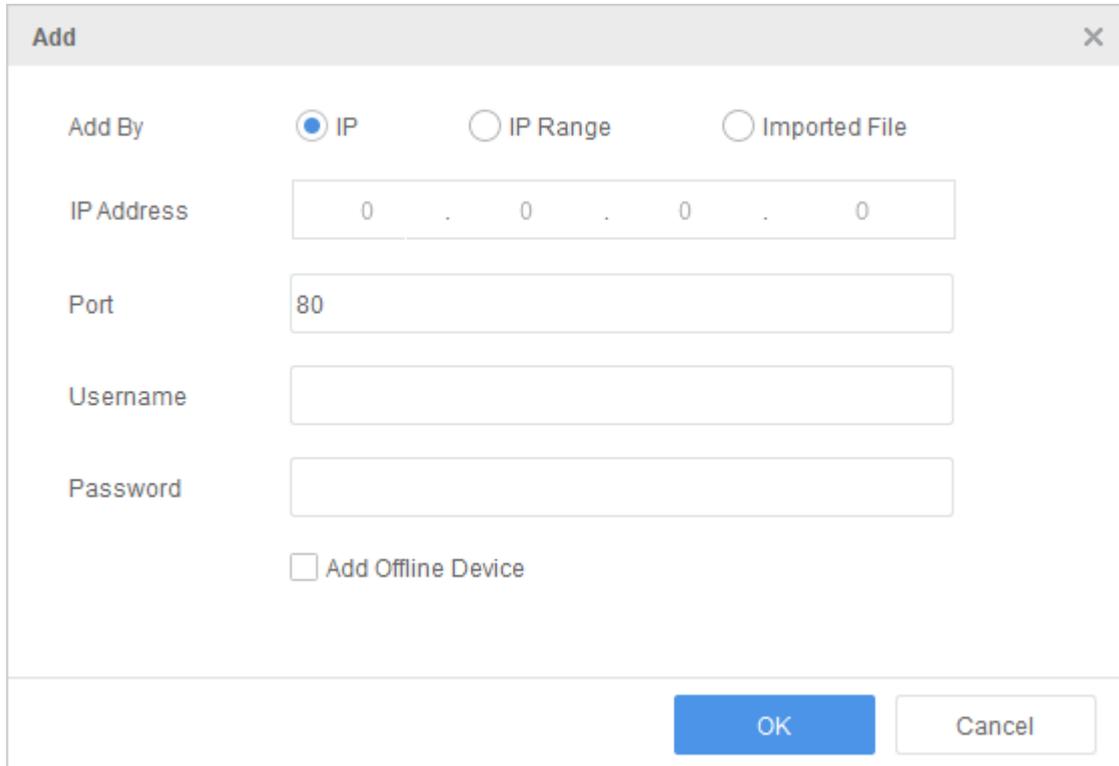
✓	Device Name	Model	IP	Port	Version	Serial No.	MAC	Status	Operation
<input type="checkbox"/>	210235C8FD322B000...	DSM3001-UH-X	192.163.1.157	80	B2102.10.0.230118			Not Added	+ ♻
<input type="checkbox"/>	NVR-S300-R24@128	NVR-S300-R24	192.163.2.89	80	NVR-B5201.37.35.230509			Not Added	+ ♻
<input type="checkbox"/>	HC161@GCN-16S	HC161	192.163.3.174	80	ITS_510108-B0028P03			Not Added	+ ♻
<input type="checkbox"/>	NVR501-16B	NVR501-16B	192.163.6.112	80	NVR-B3613.37.10.230117			Not Added	+ ♻
<input type="checkbox"/>	NVR-S300-R24@128	NVR-S300-R24	192.163.14.80	80	NVR-B5201.38.5.230613			Not Added	+ ♻
<input type="checkbox"/>	NVR516-128	NVR516-128	192.163.14.82	80	NVR-B5101.37.0.230302			Not Added	+ ♻
<input type="checkbox"/>	NVR-S300-R24@128	NVR-S300-R24	192.163.14....	80	NVR-B5201.37.25.230404			Not Added	+ ♻
<input type="checkbox"/>	NVR-S200-R16@128	NVR-S200-R16	192.163.16.12	80	NVR-B5101.36.18.221215			Not Added	+ ♻
<input type="checkbox"/>	NVR501-16B-DT	NVR501-16B-DT	192.163.16....	80	NVR-B3613.36.28.230112			Not Added	+ ♻
<input type="checkbox"/>	NVR501-16B-DT	NVR501-16B-DT	192.163.16....	80	NVR-B3613.36.28.230112			Not Added	+ ♻
<input type="checkbox"/>	UNVIEW	DC2004-FF	193.44.1.2	81				Not Added	+ ♻
<input type="checkbox"/>	UNVIEW	DC2004-FF	193.44.1.3	81				Not Added	+ ♻
<input type="checkbox"/>	UNVIEW	DC2004-FF	193.44.1.4	81				Not Added	+ ♻
<input type="checkbox"/>	UNVIEW	DC2004-FF	193.44.1.28	81				Not Added	+ ♻
<input type="checkbox"/>	UNVIEW	DC2004-FF	193.44.1.28	81				Not Added	+ ♻

2. (Optional) Set search conditions including network segment, device type, and status, and then click **Search**.
3. Choose a way to add devices.
  - Add devices in batches: Select devices you want to add, and then click **Batch Add**.
  - Add one device: Click the corresponding **+** in the **Operation** column.
4. Confirm the username and password and then click **OK**. The default username/password is admin/123456. If you changed the username/password of a device before successfully adding it to the tool, the tool will remember the new username/password, and will use them when you add the device again next time.

5. The tool displays a message after completing the adding. If a device failed to be added, click **View Failure Details** to see the cause of failure. You can modify settings in the list and then import again. See [Import File](#).

### 2.1.2 Add Device Manually

1. Click **Add**. A page as shown below appears.



The screenshot shows a dialog box titled "Add" with a close button (X) in the top right corner. The dialog contains the following elements:

- Add By:** Three radio buttons are present: "IP" (selected), "IP Range", and "Imported File".
- IP Address:** A text input field containing "0 . 0 . 0 . 0".
- Port:** A text input field containing "80".
- Username:** An empty text input field.
- Password:** An empty text input field.
- Add Offline Device:** A checkbox that is currently unchecked.
- Buttons:** "OK" and "Cancel" buttons are located at the bottom right of the dialog.

2. Choose a way to add devices.
  - By IP: Enter the device IP address, port number, username, and password to add a device.
  - By IP range: Enter the IP range, port number, username, and password to add all devices within the IP address range.
  - Import File: Click **Export** to export the template, then complete device information in the template, and import the template to add the devices specified in the file. A message appears when the import is completed. If a device failed to be added, you can click **View Failure Details** to see the cause of failure. You can modify settings and then import again.
3. (Optional) Check **Add Offline Device** to add offline devices to the device list. The device information will not be verified when they are added to the device list; it will be verified when you configure the devices.
4. Click **OK**.

## 2.2 Basic Operations

### 2.2.1 Edit Device

Edit the device username and password saved by the tool. The username and password will be used to access the device during subsequent configuration.

Choose a way to change the device username and password.

✓	Device Name	IP	Model	Version	MAC	Serial No.	Operation	Operation Status
<input type="checkbox"/>	IPC2124SR3-DP...	192.168.2.15	IPC2122SR3-F...	IPC_D1202-B0007P79D...	48-...	...	   	--
<input type="checkbox"/>	IPC2124SR3-DPF120	192.168.2.43	HIC5621E-L-U	QIPC-R1201.30.35.210517	48-...	...	   	--

- Edit devices in batches: Select the devices you want to edit, click **Edit**. A dialog box appears. Enter the new username and password, and then click **OK**.

- Edit one device: In the **Operation** column, click  for the device you want to edit. A dialog box appears. Enter the new username and password, and then click **OK**.

You do not automatically log in to the device after changing the username and password. To check whether the password is correct, select the device and then click **Refresh** to view the device status.

### 2.2.2 View Device Details

Click  in the **Operation** column to view device details, including device name, model, serial number, version information, and IP address.

**Details** ✕

Device Name: HIC5621@DH-FA

Device Model: HIC5621

Serial No.: : [redacted]

Version: IPC\_Q1203-B0006P30D1806

MAC: 48- [redacted]

Port: 80

IP: 192.168.2.64

Subnet Mask: 255.255.0.0

Gateway: 192.168.2.1

Close

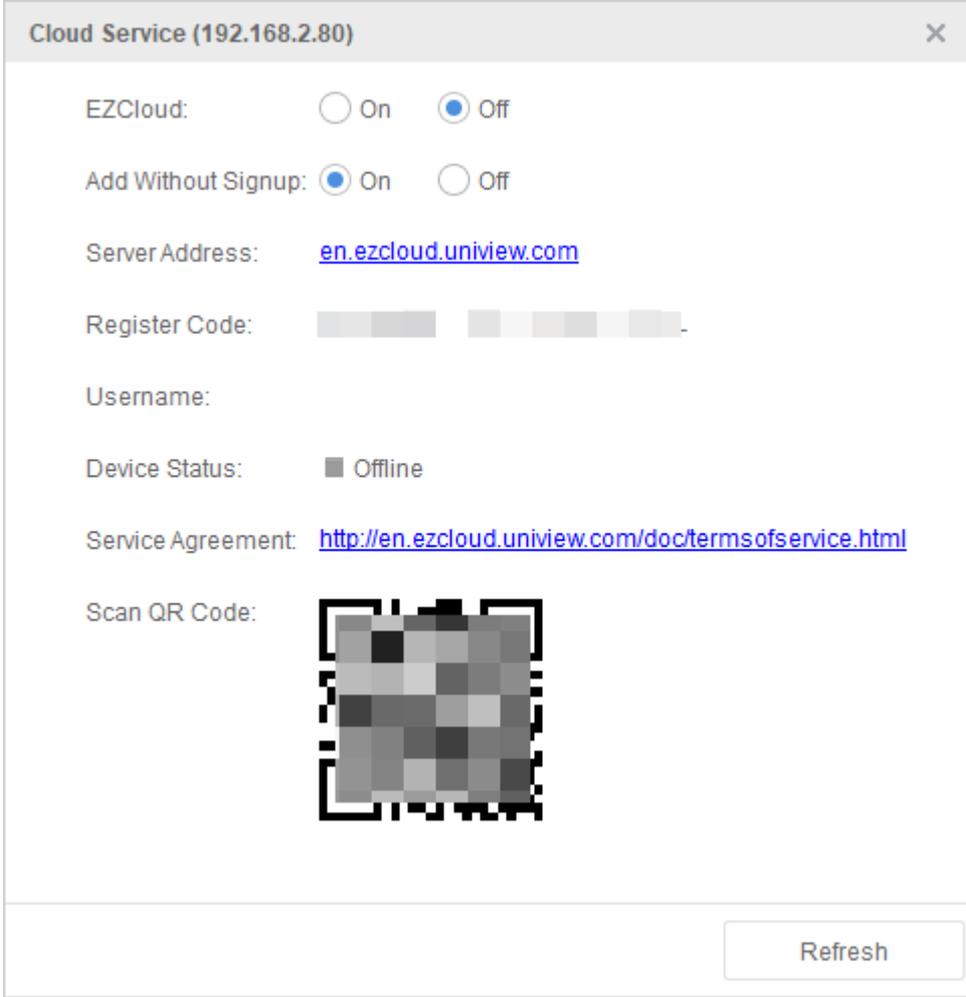
### 2.2.3 Configure Cloud Service

Enable/disable cloud service and the add without signup function.

- After enabling the cloud service, you can add the device to your cloud account. Then, you can use the device by logging in to your cloud account in other applications, without the need to repeatedly add the device.

- When the add without signup function is enabled, you can add and use a device using the corresponding app, without the need to sign up for a cloud account.

Click  in the **Operation** column. A page as shown below appears.



Cloud Service (192.168.2.80) ✕

EZCloud:  On  Off

Add Without Signup:  On  Off

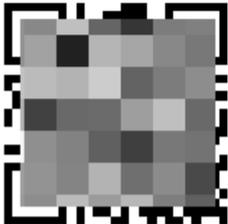
Server Address: [en.ezcloud.uniview.com](http://en.ezcloud.uniview.com)

Register Code:

Username:

Device Status:  Offline

Service Agreement: <http://en.ezcloud.uniview.com/doc/termssofservice.html>

Scan QR Code: 

- Enable or disable the cloud (EZCloud) service for the device.  
When the cloud service is enabled, you can log in to your cloud account in the app and use the app to scan the QR code to add the device. If the device status is displayed as “online”, it indicates the device is connected to the cloud server and can be added to your cloud account.



---

**NOTE!**

After enabling or disabling the cloud service, you need to click **Refresh** to update the device status.

---

- Enable or disable the add without signup function for the device.  
When enabled, you can use a corresponding app to scan the QR code below to add the device. This enables you to access the device remotely from a mobile phone without requiring you to sign up for a cloud account.



## NOTE!

The add without signup function requires that the device has enabled cloud service and set a strong password.

- Delete device: To remove a device from your cloud account, click **Delete**. This operation does not affect using the device in the tool.

### 2.2.4 Access Device's Web Interface

Click  in the **Operation** column to open the login page on the device's web interface.

✓	Device Name	IP	Model	Version	MAC	Serial No.	Operation	Operation Status
<input type="checkbox"/>	IPC2124SR3-DP...	192.168.2.15	IPC2122SR3-F...	IPC_D1202-B0007P79D...	[blurred]	[blurred]	    	--
<input type="checkbox"/>	SDHIC5621E-L-U	192.168.2.43	HIC5621E-L-U	QIPC-R1201.30.35.210517	[blurred]	[blurred]	    	--

### 2.2.5 Delete Device

Select the devices you want to delete, and then click **Delete** on the top to delete the devices from the device list.

✓	Device Name	IP	Model	Version	MAC	Serial No.	Operation	Operation Status
<input type="checkbox"/>	IPC2124SR3-DP...	192.168.2.15	IPC2122SR3-F...	IPC_D1202-B0007P79D...	[blurred]	[blurred]	    	--
<input type="checkbox"/>	SDHIC5621E-L-U	192.168.2.43	HIC5621E-L-U	QIPC-R1201.30.35.210517	[blurred]	[blurred]	    	--

## 2.3 Upgrade

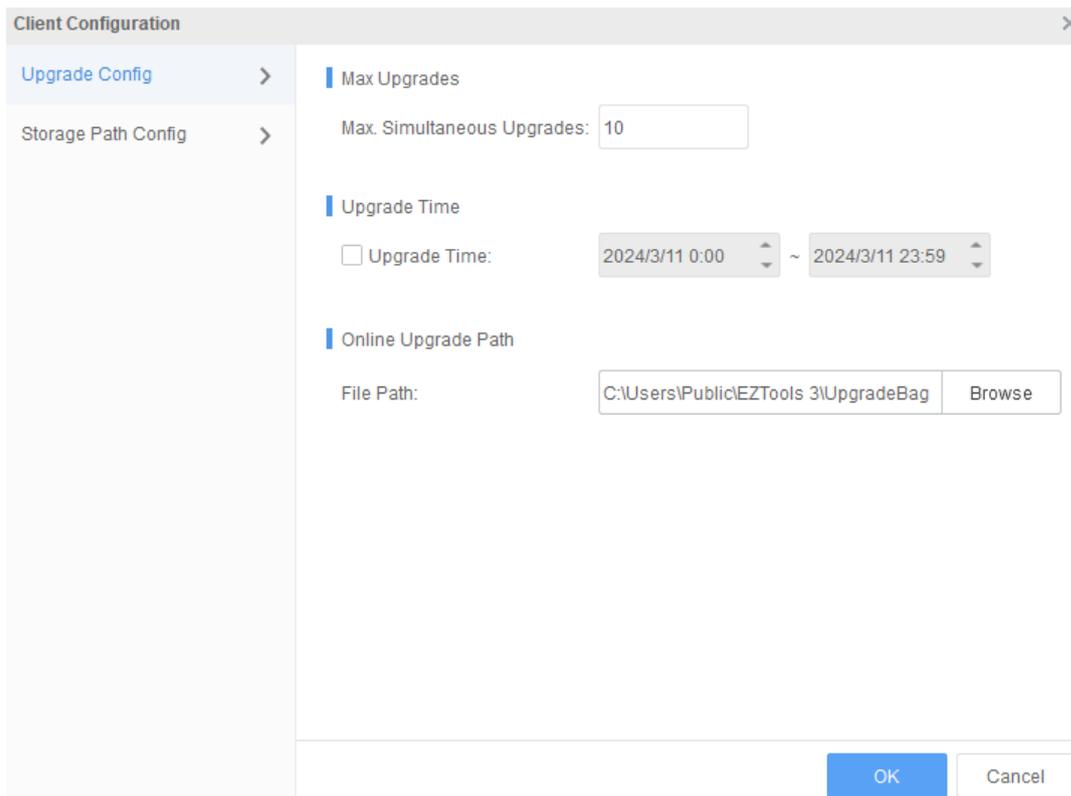
Upgrade the version of devices or channels by choosing an upgrade mode below:

- Template upgrade: Uses a template that specifies paths to upgrade packages on your computer and uses them to upgrade different types of devices.
- Online upgrade: Obtains upgrade packages from the cloud to upgrade various types of devices.
- File upgrade: Uploads upgrade files to upgrade devices of the same type.

### 2.3.1 Upgrade Config

Set the maximum number of devices that can be upgraded simultaneously and an upgrade period.

1. Click  in the top right corner. A page as shown below appears, select **Upgrade Config** tab.



2. Configure the following parameters.

- **Max. Simultaneous Upgrades:** Enter the number of devices that can be upgraded simultaneously. The greater the number, the higher the network requirements. The default is 10.
- **Upgrade time:** If selected, the upgrade will begin during the specified time period; otherwise, the upgrade will start immediately. If an upgrade period is specified, make sure the tool is running during that period, otherwise upgrade will fail.
- **Online Upgrade Path:** Click **Browse**, and then specify the download destination for the upgrade packages.

3. Click **OK**.

## 2.3.2 Upgrade Device

### 1. Template File

This mode uses a template file containing paths to the upgrade packages on your computer and uses these upgrade packages to upgrade devices of various types in batches.

1. Select the devices you want to upgrade, and then click **Device Upgrade**.
2. Choose **Template Upgrade**.

**Upgrade**
✕

Upgrade Mode:  Template File  Online Upgrade  File Upgrade

Export Template:

File Path:

Note: This mode uses a template that specifies paths to upgrade packages on your computer and uses them to upgrade different types of devices.

| Upgrade Config

Max Upgrades: 10

---

3. Click **Export** to export a template containing the basic information about the selected device. In the template file, enter paths to the upgrade packages on your computer.
4. Click **Browse** to locate the configured template file, and then click Open to import the template.
5. (Optional) Click . See [Upgrade Config](#).
6. Click **Upgrade**. The devices will be upgraded during the configured upgrade time.

## 2. Online Upgrade

This mode checks for updates for the connected devices and downloads upgrade packages (if updates are available) to your computer to upgrade devices of various types.

1. Select the devices you want to upgrade, and then click **Check for Updates**. The tool checks for updates for the selected devices. If updates are available, **Upgradable** will be displayed in the **Operation Status** column.
2. Select the upgradable devices, click **Device Upgrade**.

Upgrade✕

Upgrade Mode:  Template File  Online Upgrade  File Upgrade

Note: This mode obtains upgrade packages from the cloud to upgrade various types of devices.

**Upgrade Config**

Max Upgrades: 10

Online Upgrade Path: C:\Users\Public\EZTools 3\UpgradeBag

---

3. Choose **Online Upgrade**.
4. (Optional) Click . See [Upgrade Config](#).
5. Click **Upgrade**. The devices will be upgraded during the configured upgrade time.

### 3. File Upgrade

This mode allows upgrading devices of the same type by uploading upgrade files.

1. Select the devices you want to upgrade, and then click **Device Upgrade**.
2. Choose **File Upgrade**.

Upgrade✕

Upgrade Mode:  Template File  Online Upgrade  File Upgrade

File Path:

Note: This mode uploads upgrade files to upgrade devices of the same type.

**Upgrade Config**

Max Upgrades: 10

---

3. Click **Browse**, and then locate the upgrade packages on your computer.

- (Optional) Click . See [Upgrade Config](#).
- Click **Upgrade**. The devices will be upgraded during the configured upgrade time.

### 2.3.3 Upgrade Channel

Upgrade camera connected to an NVR (also known as NVR channels).

- Select the NVR, click **Channel Upgrade**.
- Select the channels you want to upgrade, and then click **OK**.
- The remaining operations for upgrading a channel are the same as upgrading a device. See Upgrade Device for details.

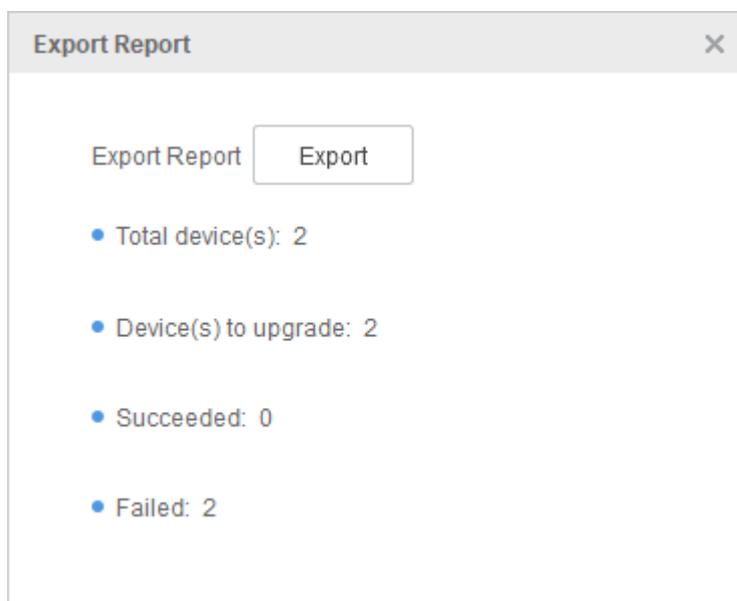
### 2.3.4 Cancel Upgrade

If an upgrade task is scheduled, the upgrade time will be displayed at the top, and you can click **Cancel** behind it to cancel the task.

Only one scheduled upgrade task can be configured.

### 2.3.5 Export Upgrade Report

- Select the desired devices, and then click **Export Upgrade Report**. The **Export Report** page as shown below appears
- View the total number of devices, the number of devices to be upgraded, and the number of successful or failed devices in the upgrade. To export the report, click **Export**.



## 2.4 Change Device Password

Change the login password for a device. After the password is changed, you need to use the new password to access the device's web interface.

- Select the target device, and then click **Change Password**.



## NOTE!

If you select multiple devices to change passwords, make sure that the usernames and original passwords of the selected devices are the same.

2. On the page as shown below, enter the device's username, old password and new password.

Manage Device Password (100.101.1.78) ×

\* Username

\* Old Password

\* New Password

Weak Medium Strong

\* Confirm

Phone Number

OK Cancel

3. (Optional) Enter an email address for the device. The entered email address can be used to receive a security code that is used to reset the device password in case you forget it. See [Reset Device Password](#).
4. Click **OK** to save the new password.

## 2.5 Modify Network Parameters

Modify the network parameters of a device manually or by using Dynamic Host Configuration Protocol (DHCP).

1. Choose a method to open the Modify IP page.
  - Select the device, and then click **Modify Network Parameters**.
  - Click **Search**. On the **Search to Add** page, select the device for which you want to modify IP, and then click **Modify Network Parameters**.
2. Choose **Static** or **DHCP** on the **Modify IP** page.

**Modify IP (2 device(s) selected)** X

Mode:  Static  DHCP

IP Range:  —

Subnet Mask:

Gateway:

IP(old)	IP(new)	Subnet Mask	Gateway	Username	Password	Device Status
192.168.2.64	192.168.2.64	255.255.255.0	192.168.2.1	admin	●●●●●●	Logged in
192.168.2.123	192.168.2.65	255.255.255.0	192.168.2.1	admin	●●●●●●	Logged in

- Static: Enter the IP (for multiple devices, enter an IP address range), subnet mask, and gateway.
  - DHCP: IP address will be assigned dynamically.
3. Click **OK**. Check the **Device Status** column to see whether the modification is successful.

## 2.6 Configuration

### 2.6.1 Basic Configuration

#### 1. Device Name

Change device name.



**NOTE!**

The device name appears only when one device is selected.

1. Enter the new name.

Device Name

2. Click **Save**.

#### 2. Time

Choose a way to change the device's time zone and system time.

- Change manually: Manually change the time zone and system time.

- Sync with computer time: Click **Sync with Computer Time** to sync the device's system time with the computer's system time.

Time Zone: (UTC+00:00)London, Dublin, Lisbon

System Time: 2023-6-21 02:04:54 Sync with Computer Time

Auto Update:  On  Off

- Enable **Auto Update**: Set the NTP server address, port, and update interval, and the device's system time will automatically synchronize with the NTP server time.

Time Zone: (UTC+00:00)London, Dublin, Lisbon

System Time: 2023-6-21 02:04:54 Sync with Computer Time

Auto Update:  On  Off

NTP Server Address: 0 . 0 . 0 . 0

NTP Port: 123

Update Interval: 10m

### 3. Network

Modify a device's network configuration.



**NOTE!**

The network configuration appears only when one device is selected.

1. Configure the IP obtainment mode, network type, IP address, operating mode, subnet mask, and gateway. An NVR also allows the selection of a network interface. The specific configuration options are subject to the actual user interface.

IP Obtain Mode: Static IP Address Port Type: Copper Port

IP Address: 192 . 168 . 2 . 64 Operating Mode:

Subnet Mask: 255 . 255 . 0 . 0

Gateway: 192 . 168 . 2 . 1

2. Click **Save**.

### 4. DNS

Configure the domain name server.

1. Modify the preferred DNS server address and alternate DNS server address.

The preferred DNS address is used when the preferred DNS is functioning properly. When the preferred DNS server is unavailable, the alternate DNS server address is activated automatically to ensure uninterrupted network operation.

Preferred DNS Server	<input type="text" value="8 . 8 . 8 . 8"/>
Alternate DNS Server	<input type="text" value="8 . 8 . 4 . 1"/>

2. Click **Save**.

## 5. Port

Configure device port.

1. Change the HTTPS port and the HTTP port.

HTTPS Port	<input type="text" value="443"/>
HTTP Port	<input type="text" value="80"/>

2. Click Save.

## 6. SNMP

SNMP is used to monitor device status and locate device faults.

1. Click **Enable** to enable SNMP.
2. Choose an SNMP type: SNMPv2 or SNMPv3.

SNMP	<input checked="" type="radio"/> On <input type="radio"/> Off
SNMP Type	<input type="text" value="SNMPv3"/>
Username	<input type="text" value="admin"/>
Authentication Mode	<input type="text" value="MD5"/>
Authentication Password	<input type="text"/>
Confirm Authentication Password	<input type="text"/>
Encryption Mode	<input type="text" value="DES"/>
Encryption Password	<input type="text"/>
Confirm Encryption Password	<input type="text"/>

- (Recommended) SNMPv3

When the network security level is low, SNMPv3 is recommended due to its high level of security. SNMPv3 uses username and password authentication and DES encryption to provide a higher level of security.

SNMP  On  Off

SNMP Type

Username

Authentication Mode

Authentication Password

Confirm Authentication Password

Encryption Mode

Encryption Password

Confirm Encryption Password

Parameter	Description
SNMP Type	The default is SNMPv3.
Authentication Password	Used to verify packets sent from the device.
Confirm Authentication Password	Re-enter the authentication password.
Encryption Password	Used to encrypt data sent from the device.
Confirm Encryption Password	Re-enter the encryption password.

➤ **SNMPv2**

SNMPv2 is allowed when the network security level is high. SNMPv2 uses community string authentication and thus is less secure than SNMPv3.

SNMP  On  Off

SNMP Type

Read Community

Parameter	Description
SNMP Type	Choose SNMPv2. A message appears to remind you of security risks. Click <b>OK</b> to proceed.

Read Community	Set SNMP read-only community name to enable the management end to verify messages from the device. After successful authentication, SNMP messages with that community name can be received.
----------------	---

## 7. ONVIF

Configure IPC authentication mode.

Authentication Mode       Standard       Compatible

- Standard: Uses the ONVIF-recommended authentication mode.
- Compatible: Uses the device's current authentication mode.

### 2.6.2 Advanced Configuration

Advanced configuration includes images, encoding format, OSD, audio, motion detection, and intelligent server parameters of IPCs and NVR channels. The parameters displayed may vary depending on the device model.



---

**NOTE!**

The EC encoder channel only supports the configuration of image, encoding, and OSD parameters.

---

#### 1. Image

Configure image parameters include display effects, image enhancement, scene, exposure, smart illumination, and white balance.

The screenshot displays a camera configuration interface. On the left, there is a live video feed showing a blurred scene. Below the feed is the 'Image Enhancement' section, which includes sliders for Brightness, Saturation, Contrast, Sharpness, 2D NR, and 3D NR, all set to 128. There is also a dropdown for 'Image Rotation' set to 'Normal'. On the right, the 'Scenes' section is checked and shows 'Mode' as 'Single Scene' and 'Select Scene' as 'Common'. The 'Exposure' section is also checked and includes settings for 'Exposure Mode' (Automatic), 'Shutter' (1/100), 'Gain(dB)' (0), 'Slow Shutter' (Off), 'Slowest Shutter' (1/12), 'Compensation' (0), 'Day&Night Mode' (Automatic), 'Day&Night Sensitivity' (Medium), 'Day&Night Switching(:' (3), and 'WDR' (Off). At the bottom right, there are two buttons: 'Get Configuration' and 'Restore Default'.

#### Operations:

- View display effects: You can view live video while adjusting image settings. The adjustments take effect immediately, allowing you to see the changes in real time. You can double-click the image to maximize it to full screen; double-click again to restore.
- Restore defaults: Click **Restore Default** to restore the default settings.
- Obtain configuration: Click **Get Configuration** to obtain the latest parameters from the device.
- To apply different scenes during different time periods, choose **Multiple Scenes** from the **Mode** drop-down list, set the scene type, schedule, illumination, and elevation for each scene, and then select **Enable Scene Schedule**. When the conditions set for the schedule, illumination, and elevation range are met at the same time, the selected scene will be applied. If the conditions are not met, the default scene will be used (with  displayed in the **Operation** column). Clicking  in the **Operation** column will set the current scene as the default scene.
- Copy to Channel: Copy image settings of a channel to other channels for quick configuration. Click **Copy To**, select parameters and channels, and then click **Save**.

Current Channel Channel 002

Channels (192.168.2.101)

Parameters **2**

All

Image Enhancement    Exposure    Smart Illumination    White Balance

Channel **3**

All

<input checked="" type="checkbox"/> Channel 2	<input type="checkbox"/> Channel 3	<input type="checkbox"/> Channel 4	<input type="checkbox"/> Channel 5
<input type="checkbox"/> Channel 6	<input type="checkbox"/> Channel 7	<input type="checkbox"/> Channel 9	<input type="checkbox"/> Channel 10
<input type="checkbox"/> Channel 12	<input type="checkbox"/> Channel 13	<input type="checkbox"/> Channel 14	<input type="checkbox"/> Channel 15
<input type="checkbox"/> Channel 16	<input type="checkbox"/> Channel 17	<input type="checkbox"/> Channel 18	<input type="checkbox"/> Channel 19
<input type="checkbox"/> Channel 20	<input type="checkbox"/> Channel 23	<input type="checkbox"/> Channel 24	<input type="checkbox"/> Channel 26
<input type="checkbox"/> Channel 29	<input type="checkbox"/> Channel 30	<input type="checkbox"/> Channel 34	<input type="checkbox"/> Channel 35
<input type="checkbox"/> Channel 36	<input type="checkbox"/> Channel 37	<input type="checkbox"/> Channel 39	<input type="checkbox"/> Channel 40

Save **4**

Copy To **1**

Get Configuration   Restore Default



**NOTE!**

The copy function only applies to channels that are connected via the private protocol.

**2. Encoding**

Configure encoding parameters, including capture mode, main/sub/third stream.

Current Channel: Channel 001

Capture Mode: 2688×1520@60

---

**Main**

Compression: H.265

Resolution: 1920×1080(1080P)

Frame Rate(fps): 60

Bit Rate(Kbps): 1536 [128 ~ 16384]

Bit Rate Type: VBR

Image Quality: Bit Rate Quality  9

U-Code: Advanced Mode

**Enable Third**

Compression: H.265

Resolution: 352×288(CIF)

Frame Rate(fps): 25

---

**Enable Sub**

Compression: H.265

Resolution: 720×576(D1)

Frame Rate(fps): 25

Bit Rate(Kbps): 512 [128 ~ 16384]

Bit Rate Type: CBR

Image Quality: Bit Rate Quality  5

I Frame Interval: 50 [5 ~ 250]

GOP: IP

Smoothing: Clear  Smooth

U-Code: Off

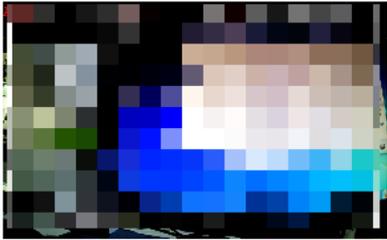
#### Operations:

- To apply the changes, click **Save**.
- To copy configuration to a channel: Copy the encoding configuration of a channel to other channels. See Copy to Channel.

### 3. OSD

Configure OSD parameters. OSD refers to contents (such as text) overlaid on video images. OSD configuration includes display effects, channel name, content style, OSD content, and display area.

Current Channel Channel 001



Display Style

Effect Background

Font Size Medium

Font Color #ffffff

Min.Margin Double

Date Format dd/MM/yyyy

Time Format hh:mm:ss tt

Copy To

√	No.	Position	Overlay OSD Content
<input checked="" type="checkbox"/>	1	Area2	222
<input checked="" type="checkbox"/>	2	Area3	222
<input checked="" type="checkbox"/>	3	Area4	222
<input checked="" type="checkbox"/>	4	Area5	222
<input checked="" type="checkbox"/>	5	Area5	2222
<input type="checkbox"/>	6	Area6	
<input type="checkbox"/>	7	Area7	
<input type="checkbox"/>	8	Area8	

Overlay Area2

X 50 Y 0 Aligning Left



**NOTE!**

For EC encoder channels, the Channel Name option is not available in the OSD content list.

Operations:

- View display effects: You can view live video while adjusting image settings. The adjustments take effect immediately, allowing you to see the changes in real time. You can double-click the image to maximize it to full screen; double-click again to restore.
- Add or delete OSD: Adjust the OSD style on the left, and enter the OSD content in the box on the right. The checkbox is automatically selected for the OSD content. To delete an OSD, clear the checkbox or clear the OSD content.
- Adjust OSD position: The position of each OSD is adjustable. Click a row on the right side, the coordinates of the OSD are displayed. Adjust the position as needed to avoid overlap.
- Use the copy function to copy the OSD configuration of an NVR channel to other channels of the NVR. See Copy to Channel.

**4. Audio**

Configure audio parameters, including audio input, audio input gain, encoding format, and sampling rate.



**NOTE!**

NVR channels do not support audio configuration.

Audio Input  On  Off

Audio Input Gain  [0 ~ 255]

Encoding Format

Sampling Rate(KHz)

## 5. Motion Detection

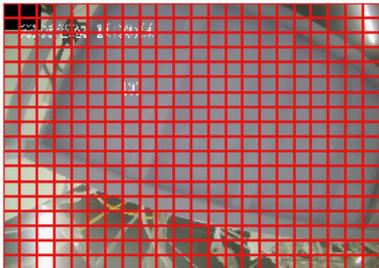
Configure motion detection parameters. Motion detection is used to detect motion within the detection area during a specified time period. Motion detection configuration includes:

- Enable or disable motion detection
- Draw detection area
- Configure arming schedule
- Configure alarm linkage (alarm-triggered actions)

Current Channel

Motion Detection  On  Off

[Detection Area](#) [Arming Schedule](#) [Trigger Actions](#)



Sensitivity 
High
Low

 Draw Area

 Clear All

Some parameters are described below.

Item	Description
Detection Area	You can specify detection areas by drawing on the image. The red grid indicates the detection area. Click <b>Draw Area</b> to start drawing, and click <b>Finish Drawing</b> when you have finished.
Sensitivity	The higher the sensitivity, the smaller the detectable pixels, and it is easier to trigger detection rules, but the false alarm rate will also increase accordingly. The specific value should be determined according to the actual scene or test.



### Intelligent Server

Server IP

Server Port

Platform Communication Type

Device ID

Username

Platform Access Code

### Video&Image Database Settings

Coordinate Mode

Connection Mode

Report Data Type  Motor Vehicle  Non-Motor Vehicle  Person  Face

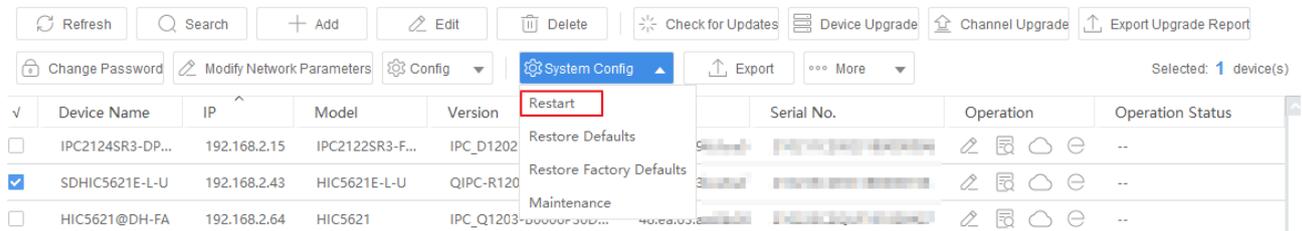
### GAT 1400 Parameter Description

Item	Description
Device ID	Enter a protocol-compliant number, where, digits 11-13 must be 119.
Username	Username that the device uses to access the upper-level platform.
Platform Access Code	Password that the device uses to access the upper-level platform.
Coordinate Mode	<p>Indicate coordinates of the detection object. The percentage mode is recommended.</p> <ul style="list-style-type: none"> <li>● (Recommended) Percentage mode: It specifies the range of 0-10000 for the x and y axes and uses it as a coordinate system to determine the detection object's position in the image.</li> <li>● Pixel mode: It reports the coordinates of the horizontal and vertical pixels of the detection object in the image to determine the detection object's position in the image.</li> <li>● Normalized mode: It specifies a range of 0-1 for x and y axes and uses it as a coordinate system to determine the detection object's position in the image.</li> </ul>
Connection Mode	<ul style="list-style-type: none"> <li>● Short Connection: Implemented by the standard HTTP protocol, and the connection mode used between devices and the upper-level platform is determined by the upper-level platform.</li> <li>● Standard: Used only when the device is connected to a Uniview server.</li> </ul>
Report Data Type	Select the types of data to be reported: motor vehicle, non-motor vehicle, person, and face.

## 2.7 System Configuration

### 2.7.1 Restart Device

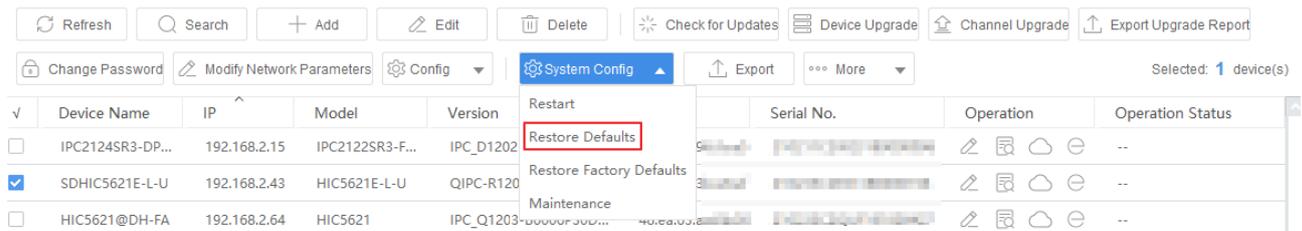
Select the devices you want to restart, click **System Configuration > Restart Device**, and then confirm.



### 2.7.2 Restore Defaults

Restoring defaults means to restore all the parameters of a device to factory defaults except network, user, and time parameters.

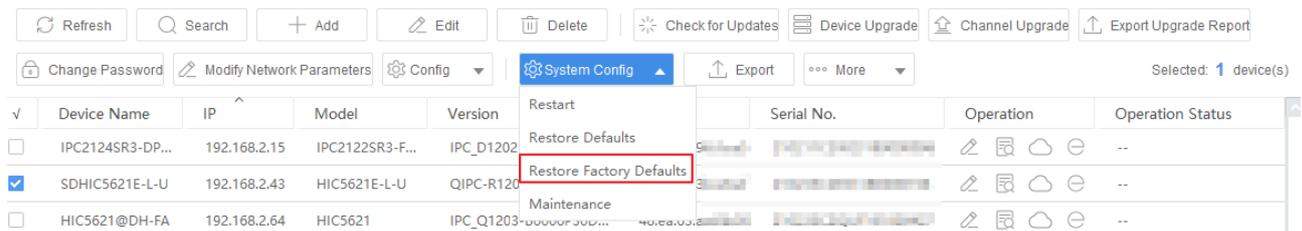
Select the target devices, click **System Configuration > Restore Defaults**, and then confirm.



### 2.7.3 Restore Factory Defaults

Restoring defaults means to restore all the parameters of a device to factory defaults.

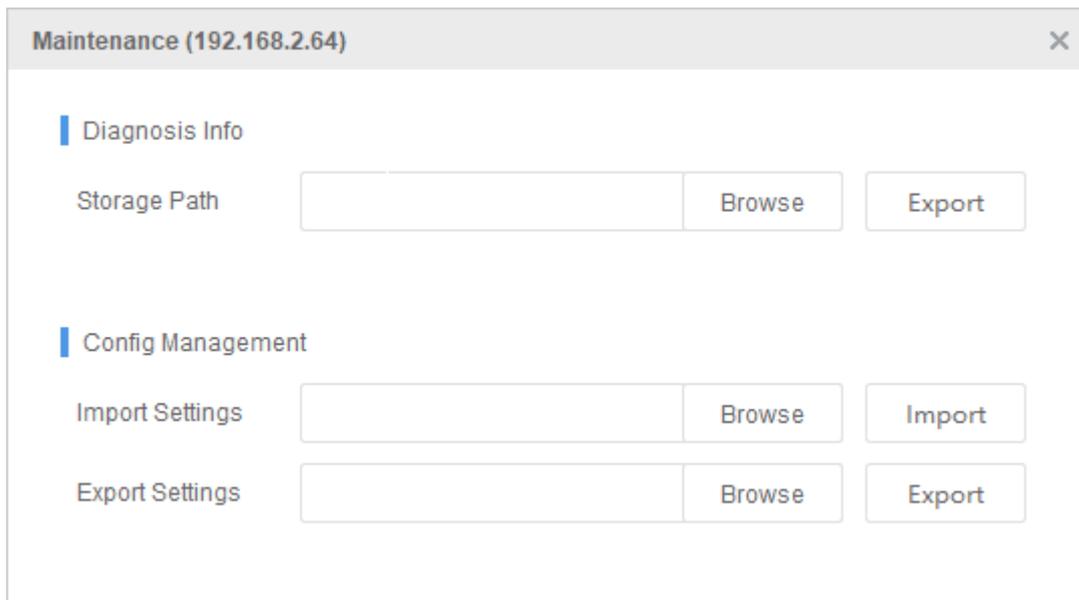
Select the target devices, click **System Configuration > Restore Factory Defaults**, and then confirm.



### 2.7.4 Device Maintenance

Device maintenance allows you to import device configurations, export diagnostic information and configurations.

1. Select devices, click **System Configuration > Maintenance**.



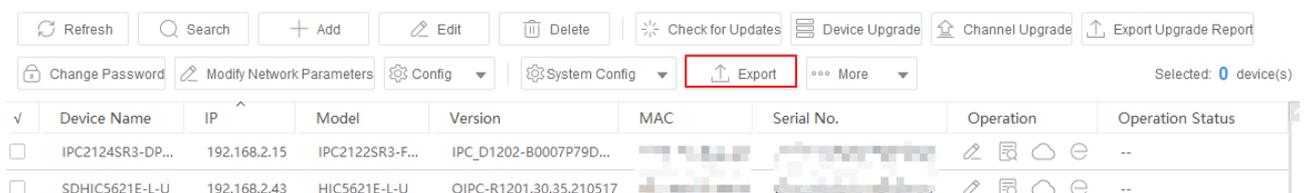
2. Perform the following operations as needed:

- Export diagnostic information, including log information and system configuration information. Click **Browse**, specify the destination, and then click **Export**. The diagnostic information will be saved as a .csv file to the specified location on your computer.
- Import configuration: Import a local configuration file into a device to replace the existing configuration file and change the device's configuration. Click **Browse**, locate the configuration file, and then click **Import**.
- Export configuration: Export the system configuration file of a device to a local folder for backup. Click **Browse**, specify the destination, and then click **Export**.

## 2.8 Export Device List

Export device information including device name, IP address, model, version information, MAC address, and serial number to a .csv file.

Select the devices from the list, click **Export**, choose the destination, and then click **Save** to export information of the selected devices.



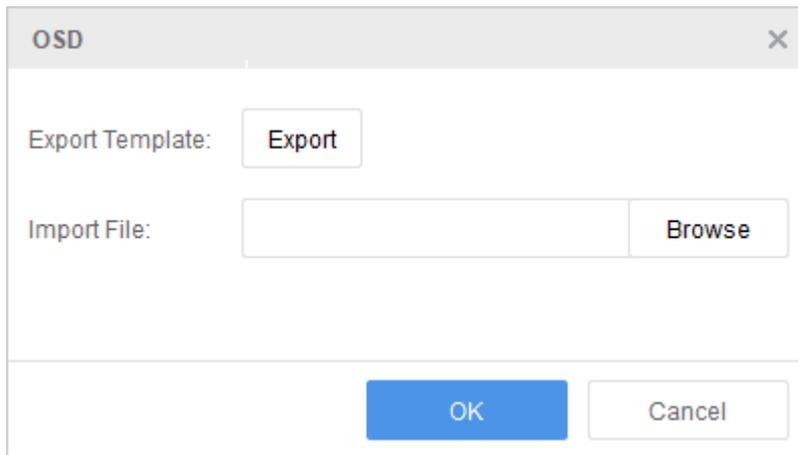
## 2.9 More

### 2.9.1 Modify Device Names

Change device names in batches by importing a .csv file containing the modified device names. You need to export a file containing the current device names first.

1. Select the target devices, click **More > Modify Device Name**. A page as shown below appears.

2. Click **Export** to export a template file containing information of the selected devices, including IP, serial number, device type, and device name.



3. Modify the device names in the file, and then save the changes.
4. Click **Browse** to select the file.
5. Click **OK**. The current device names will be replaced by the device names contained in the imported .csv file.

## 2.9.2 Modify OSDs

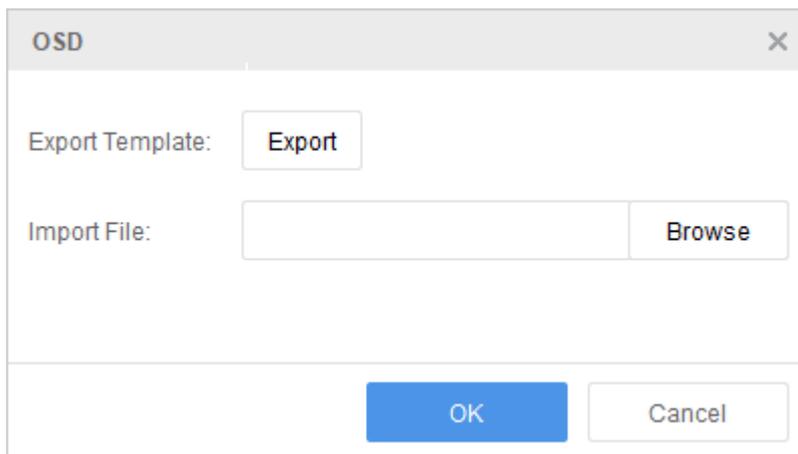
Change device OSDs in batches by importing a .csv file containing the modified OSD configuration. You need to export the current OSD configuration first.



### NOTE!

Only IPCs and EC encoders support changing OSDs in batches.

1. Select the target devices, click **More > Modify OSD**. A page as shown below appears.
2. Click **Export** to export a template file containing the current OSD configuration of the selected devices.

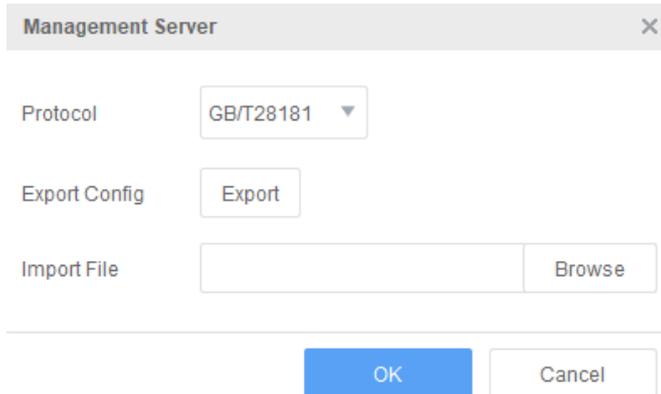


3. Modify the OSD configuration in the file, and then save the changes.
4. Click **Browse** to select the file.
5. Click **OK**. The current OSDs will be modified based on the OSD configuration contained in the imported file.

### 2.9.3 Server Config

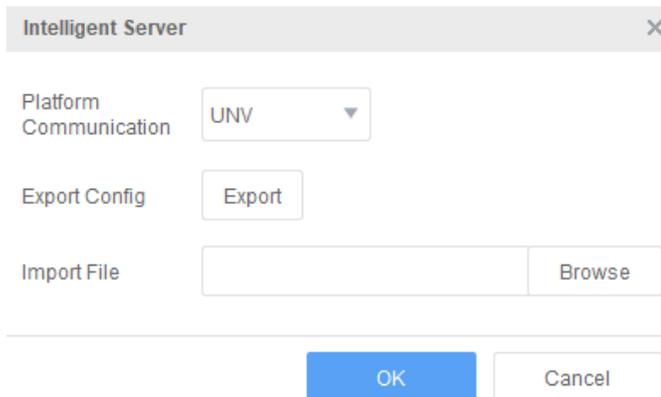
Change the server configuration for IPC(s) by importing a .csv file containing the modified server configuration. You need to export the current server configuration first.

1. Select the IPC(s) for which you want to modify the server configuration, click **More > Server Config**, and then select **Management Server** or **Intelligent Server**.
2. Export the current device configuration information into a .csv file.
  - **Management Server:** Select the management protocol, and click **Export**.



The screenshot shows a dialog box titled "Management Server" with a close button (X) in the top right corner. It contains three main sections: "Protocol" with a dropdown menu set to "GB/T28181", "Export Config" with an "Export" button, and "Import File" with a text input field and a "Browse" button. At the bottom, there are two buttons: "OK" (highlighted in blue) and "Cancel".

- **Intelligent Server:** Select the platform communication type, and click **Export**.



The screenshot shows a dialog box titled "Intelligent Server" with a close button (X) in the top right corner. It contains three main sections: "Platform Communication" with a dropdown menu set to "UNV", "Export Config" with an "Export" button, and "Import File" with a text input field and a "Browse" button. At the bottom, there are two buttons: "OK" (highlighted in blue) and "Cancel".

3. After modifying the file locally, click **Browse** to select the modified file.
4. Click **OK**. After importing successfully, the server configuration of the device will be modified based on the server configuration contained in the imported file.

## 2.10 Other Operations

### 2.10.1 Reset Device Password

You can reset the device's login password if you forget it.

1. Click **Search**. A page as shown below appears.

Search to Add

IP Address: 0 . 0 . 0 . 0 - 0 . 0 . 0 . 0    Device Type: IPC X NVR X Display C X    Status: All    Search    Reset

+ Batch Add    Modify Network Parameters

✓	Device Name	Model	IP	Port	Version	Serial No.	MAC	Status	Operation
<input type="checkbox"/>	210235C6FD322B000...	DSM3001-UH-X	192.163.1.157	80	B2102.10.0.230118			Not Added	+ ?
<input type="checkbox"/>	NVR-S300-R24@128	NVR-S300-R24	192.163.2.89	80	NVR-B5201.37.35.230509			Not Added	+ ?
<input type="checkbox"/>	HC161@GCN-16S	HC161	192.163.3.174	80	ITS_510108-B0028P03			Not Added	+ ?
<input type="checkbox"/>	HIC6622I-HX30IR@A...	HIC6622I-HX30IR	192.163.3.230	80	ITS_6102-B0013P01			Not Added	+ ?
<input type="checkbox"/>	HIC5621-L-U	HIC5621-L-U	192.163.6.18	80	IPC_Q1201-B5026P20D...			Not Added	+ ?
<input type="checkbox"/>	HIC5421HI-L-US	HIC5421HI-L-US	192.163.6.20	80	IPC_HCMN2105-B0011...			Not Added	+ ?
<input type="checkbox"/>	NVR501-16B	NVR501-16B	192.163.6.112	80	NVR-B3613.37.10.230117			Not Added	+ ?
<input type="checkbox"/>	NVR-S300-R24@128	NVR-S300-R24	192.163.14.80	80	NVR-B5201.38.5.230613			Not Added	+ ?
<input type="checkbox"/>	NVR516-128	NVR516-128	192.163.14.82	80	NVR-B5101.37.0.230302			Not Added	+ ?
<input type="checkbox"/>	NVR-S300-R24@128	NVR-S300-R24	192.163.14....	80	NVR-B5201.37.25.230404			Not Added	+ ?
<input type="checkbox"/>	NVR-S200-R16@128	NVR-S200-R16	192.163.16.12	80	NVR-B5101.36.18.221215			Not Added	+ ?
<input type="checkbox"/>	NVR501-16B-DT	NVR501-16B-DT	192.163.16....	80	NVR-B3613.36.28.230112			Not Added	+ ?
<input type="checkbox"/>	NVR501-16B-DT	NVR501-16B-DT	192.163.16....	80	NVR-B3613.36.28.230112			Not Added	+ ?

- Click  in the **Operation** column for the target device. A reset password page appears.
- Follow the on-screen instructions to scan the QR code. A security code will be sent to the email address you have submitted for the device. Enter the security code and then click **Next** to reset the password.

## 2.10.2 Select Multiple Devices

Select devices one by one or select multiple devices by click-and-drag. The total number of devices and the number of devices selected will be displayed on top of the device list.

## 2.10.3 Refresh Device List

To update the device information displayed on the current page, click **Refresh**. Alternatively, select devices and click **Refresh** to update information of the selected devices.

## 2.10.4 Filter Devices

Select device types or enter keywords to filter the device list by device name, IP, device model, version information, serial number, and operation status. To clear the keywords you have input,

click .

Total **31** device(s)    English    ?    -    □    ×

Device Type: IPC X NVR X Display C X    Keyword: Please enter keywords

Refresh    Search    + Add    Edit    Delete    Check for Updates    Device Upgrade    Channel Upgrade    Export Upgrade Report

Change Password    Modify Network Parameters    Config    System Config    Export    ... More    Selected: 1 device(s)

✓	Device Name	IP	Model	Version	MAC	Serial No.	Operation	Operation Status
<input type="checkbox"/>	IPC2124SR3-DP...	192.168.2.15	IPC2122SR3-F...	IPC_D1202-B0007P79D...				--
<input checked="" type="checkbox"/>	SDHIC5621E-L-U	192.168.2.43	HIC5621E-L-U	QIPC-R1201.30.35.210517				--
<input type="checkbox"/>	HIC5621@DH-FA	192.168.2.64	HIC5621	IPC_Q1203-B0006P30D...				--

## 2.10.5 Sort Devices

Sort column contents in the device list in ascending or descending order by clicking a header: Device Name, IP, Device Model, Version Information, MAC, Serial Number, Operation, and Operation Status.

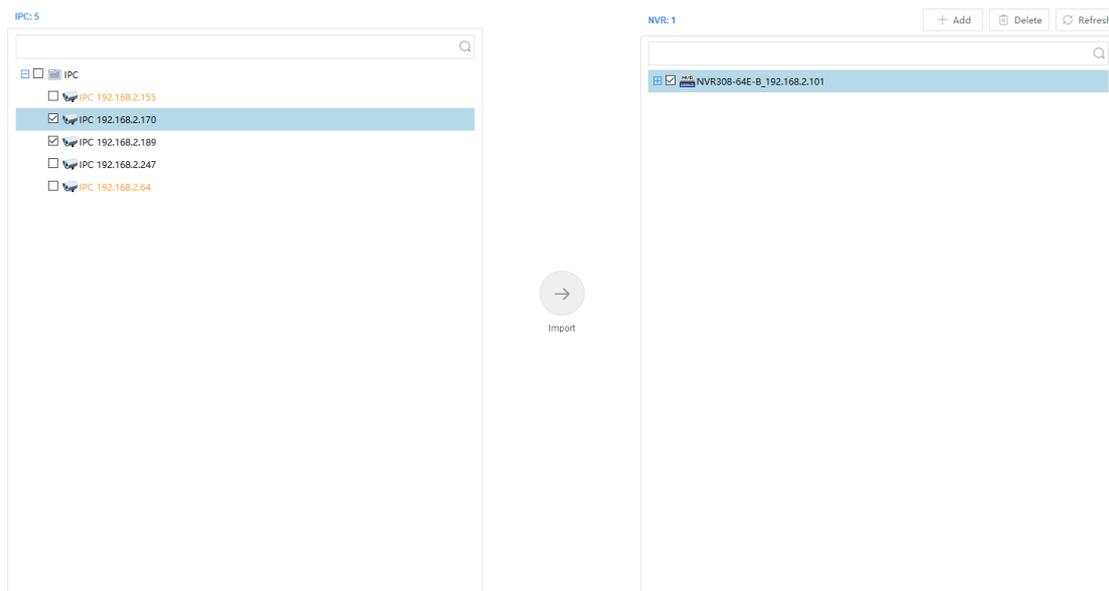
# 3 NVR Channel Management

---

Add or delete NVR channels.

## 3.1 Add NVR Channel

1. Click the NVR Channel Management tab on the main page.
2. Choose a way to add NVR channels:
  - **Select and add:** Select the target IPCs in the IPC list, select the target NVR in the NVR list, and then click **Import**. The selected IPCs will be added as channels to the specified NVR.



- **Add manually:** Select the target NVR, click **Add**. On the pop-up page, complete information for the IPC you want to add, and then click **OK**. The IPC will be added as a channel to the NVR.



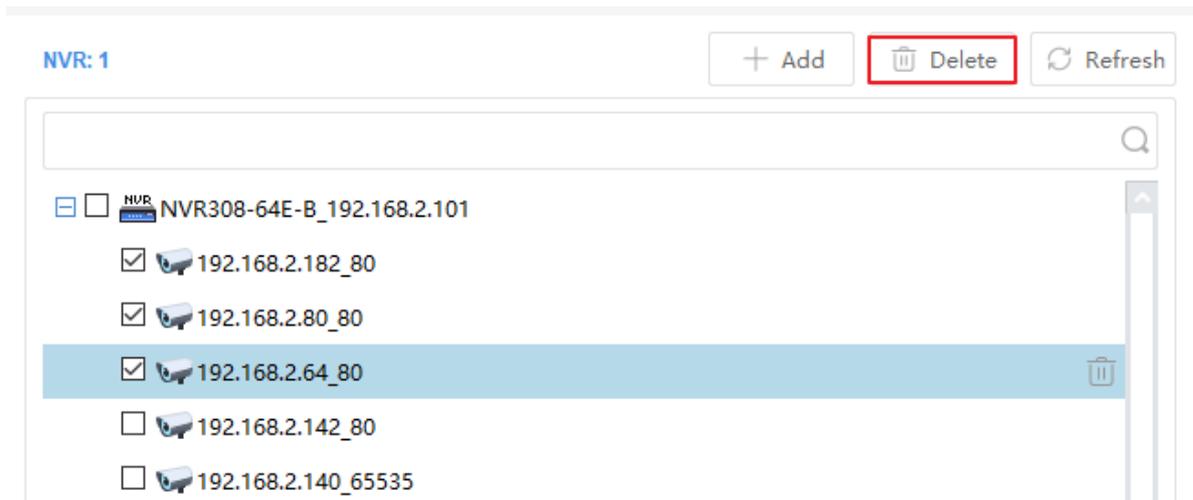
### NOTE!

- In the IPC list, orange indicates IPCs that have been added to the NVR.
  - In the NVR list, blue indicates the newly added channels.
- 

## 3.2 Delete NVR Channel

Delete NVR Channel

- Delete channels in batches: Select multiple channels under an NVR, and then click **Delete**. The selected channels will be deleted.



- Delete one channel: Hover over the channel you want to delete, and then click  to delete it.



## 4 Capacity Calculation

Calculate the allowed recording time or required hard disk space to facilitate capacity configuration.

### 4.1 Add Devices for Calculation

1. Click the **Calculation** tab.
2. Choose a way to add devices for calculation:
  - Click **Add**. On the page as shown below, configure the parameters as needed, and then click **OK**. The tool will calculate based on the settings you provided.

Add
✕

Channel Number

Compression

Resolution

Frame Rate

U-Code

Environmental Complexity

Bit Rate(Kbps)

Best Bit Rate(Kbps)
4096

- Click **Search**, and then select the devices for which you want to calculate. The tool will calculate based on the actual configuration of the selected devices.

3. Repeat the above steps to add all the devices you need.

+ Add
✎ Edit
🗑 Delete
🔍 Search to Add

✓	Compression	Channels	Resolution	Frame Rate(fps)	Bit Rate(Kbps)	Total Bandwidth(Kbps)
☑	H.264	1	1920×1080(10...	25	4096	4096

## 4.2 Calculate Retention Time

Select the devices from the list, and then click the **Calculate Retention Time** tab on the right. Choose **Disk Mode** or **RAID Mode**. The tool will calculate retention time for the selected mode.

- Disk mode: Set the daily recording time and disk capacity. The number of days allowed for recording will be displayed below.

Calculate Days

Calculate Disks

Daily Recording Time:

24 Hour(s)

Space Needed: 42.2 GB

Disk Mode

RAID Mode

Disk Capacity:

2  TB  GB

Usable Space: 1862.6 GB

Recording Time:



- RAID mode: Set the daily recording time, RAID type (0/1/5/6), RAID disk capacity and quantity. The number of days allowed for recording will be displayed below.

**Calculate Days**      Calculate Disks

---

Daily Recording Time:  
 24 Hour(s)  
Space Needed: 42.2 GB

---

Disk Mode       RAID Mode

Disk Capacity:  
       TB     GB

RAID Type:

RAID Disks:

Usable Space: 1862.6 GB

---

Recording Time:



### 4.3 Calculate Disks Needed

Select devices from the list, and then click the **Calculate Needed Disks** tab on the right. Choose **Disk Mode** or **RAID Mode**. The tool will calculate the required number of disks for the selected mode.

- Disk mode: Set the retention days, daily recording time, disk capacity. The required number of disks will be displayed below.

Calculate Days

Calculate Disks

Retention Time:

1 Day(s)

Daily Recording Time:

24 Hour(s)

Space Needed: 42.2 GB

Disk Mode

RAID Mode

Disk Capacity:

2  TB  GB

Disks Needed:

Usable Space: 1862.6 GB



- RAID mode: Set the daily recording time, retention days, RAID disk capacity, and RAID type. The required number of RAID disks will be displayed below.

Calculate Days Calculate Disks

---

Retention Time:  
 Day(s)

Daily Recording Time:  
 24 Hour(s)

Space Needed: 42.2 GB

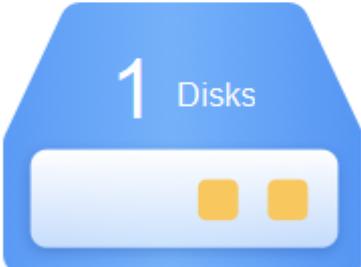
---

Disk Mode  RAID Mode

Disk Capacity:  
  TB  GB

RAID Type:

RAID Disks:      Usable Space: 1862.6 GB



## 4.4 Other Operations

Edit or delete the devices that have been added for calculation.

### Edit

1. Select the devices you want to edit, and then click Edit.

<input type="button" value="+ Add"/> <span style="border: 1px solid red; padding: 2px;"><input type="button" value="Edit"/></span> <input type="button" value="Delete"/> <input type="text" value="Search to Add"/>						
✓	Compression	Channels	Resolution	Frame Rate(fps)	Bit Rate(Kbps)	Total Bandwidth(Kbps)
<input checked="" type="checkbox"/>	H.264	1	1920×1080(10...	25	4096	4096

2. Modify the parameters as needed.
3. Click **OK**.

## Delete

Select the devices you want to delete, and then click **Delete**.

# 5 Client Configuration

---

Click  in the top right corner, go to **Client Configuration** page.

Item	Description
Upgrade Config	See <a href="#">Upgrade Config</a> .
Storage Path Config	<p>During the tool's operation, some files recording exceptions will be generated. Click <b>Browse</b> to select the storage path for these files, and click <b>OK</b> to save.</p> <p> Exception File Storage Path</p> <p>File Path: <input type="text" value="ers\Public\EZTools 3\AbnormalFilePath"/> <input type="button" value="Browse"/></p>

# 6 Application Center

---

The application center provides a portal through which users can conveniently download, install, and upgrade other applications of our company.