About This Document

Purpose

This document describes how to use the web management system, including network access, network configuration, and troubleshooting.

Intended Audience

This document is intended for:
Technical support engineers
Maintenance engineers
IP camera operators

Symbol Conventions

The symbols that may be found in this document are defined as follows.

<table>
<thead>
<tr>
<th>Symbol</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><img src="image" alt="DANGER" /></td>
<td>Indicates an imminently hazardous situation which, if not avoided, will result in death or serious injury.</td>
</tr>
<tr>
<td><img src="image" alt="WARNING" /></td>
<td>Indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.</td>
</tr>
<tr>
<td><img src="image" alt="CAUTION" /></td>
<td>Indicates a potentially hazardous situation which, if not avoided, may result in minor or moderate injury.</td>
</tr>
<tr>
<td><img src="image" alt="NOTICE" /></td>
<td>Indicates a potentially hazardous situation which, if not avoided, could result in equipment damage, data loss, performance deterioration, or unanticipated results. NOTICE is used to address practices not related to personal injury.</td>
</tr>
<tr>
<td><img src="image" alt="NOTE" /></td>
<td>Calls attention to important information, best practices and tips. NOTE is used to address information not related to personal injury, equipment damage, and environment deterioration.</td>
</tr>
</tbody>
</table>

Important Statement

This manual is only for reference and does not ensure that the information is totally consistent with the actual product. For consistency, see the actual product.
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1 Quick Start

1.1 Login and Logout

You can use IE, Edge, Firefox 52, Chrome 57 or higher version to access the web management system; otherwise, some functions may be unavailable.

Figure 1-1 Running environment

- **Browser Support**
  - Browser version: Edge browser, Chrome version not lower than 57, Firefox version not lower than 52, Opera not lower than version 44;

- **About the intercom function:**
  - Description: Configure only Chrome browser in the HTTP environment, compatible with all browsers in HTTPS environments

  HTTP Environment Chrome Opens the intercom step:
  1. Chrome Enter ‘Chrome://Flags/# unsafely-treat-INSecure-Origin-As-Secure’ in the address bar
  2. Set ‘INSECURE Origins Treated as Secure’ to ‘Enabled’
  3. Fill in the device domain name in the input box, multiple devices named ‘;’ separation; example ‘http://192.168.0.123; http://192.168.0.123: 8045’

**Login**

Step 1 Open Internet Explorer, enter the IP address of the IP camera (default value: 192.168.0.123) in the address box, and press Enter.

The login page is displayed, as shown in Figure 1-2.
Step 2 Enter the user name and password.

**NOTE**
- The default user name and password are `admin`. Change the password for the first time logging to ensure system security.

Figure 1-3 Modify default password

- You can change the system display language on the login page.

Step 3 Click →.

The main page is displayed.
1.2 Changing the Password

Description

Step 1 The change password page will be displayed as shown in Figure 1-4, when you login the system for the first time.

![Figure 1-4 Change the default password page](image)

Or change the password for login the system, as show in Figure 1-5.

![Figure 1-5 Change the password page](image)

Step 2 Enter the old password, new password, and confirmation password.

Step 3 Click OK.
If the message "Change password success" is displayed, the password is successfully changed. If the password fails to be changed, the cause is displayed. (For example, the new password length couldn’t be less than eight.)

Step 4 Click **Apply**.

The login page is displayed.

--- End

### 1.3 Main Page Layout

On the main page, you can view real-time videos, receive alarm and fault notifications, set parameters, change the password, and log out of the system. Figure 1-6 shows the main page layout. Table 1-1 describes the elements on the main page.

**Figure 1-6 Main page layout**

![Main page layout](image)

**Table 1-1 Elements on the main page**

<table>
<thead>
<tr>
<th>No.</th>
<th>Element</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Main stream/ Sub stream</td>
<td>Switch the main stream or sub stream.</td>
</tr>
<tr>
<td>2</td>
<td>Live view</td>
<td>Play the live video.</td>
</tr>
<tr>
<td>3</td>
<td>Playback</td>
<td>Play the recording of SD card.</td>
</tr>
<tr>
<td>4</td>
<td>Setting</td>
<td>To set System, Network, Video, Image, Alarm and Local, and so on.</td>
</tr>
<tr>
<td>5</td>
<td>Logout</td>
<td>Click icon to return to the login page.</td>
</tr>
<tr>
<td>6</td>
<td>Backup</td>
<td>View the status of download backup</td>
</tr>
<tr>
<td>7</td>
<td>Help</td>
<td>View the help description of running environment. The plugin is only used for IE browser.</td>
</tr>
<tr>
<td>No.</td>
<td>Element</td>
<td>Description</td>
</tr>
<tr>
<td>-----</td>
<td>---------------</td>
<td>--------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>8</td>
<td>Showing screen</td>
<td>Choose the mode of showing live video. Double click mouse left button to exit full screen.</td>
</tr>
<tr>
<td></td>
<td>Operation</td>
<td><img src="image" alt="Snapshot icon" /> : Snapshot, click to snapshot the current full image&lt;br&gt; <img src="image" alt="Record icon" /> : Record, click to record the current video to local folder, click again to end recording. &lt;br&gt; <img src="image" alt="Image setting icon" /> : Image setting, click to jump to image setting page. The paths of snapshot and record are set at Local &gt; Download config interface, more details please refer to chapter 9.&lt;br&gt; <img src="image" alt="Audio icon" /> : Audio,&lt;br&gt; <img src="image" alt="Talk back icon" /> : Talk back, if the camera has mic, use can talk to live view.</td>
</tr>
</tbody>
</table>

When the device generates an alarm, the alarm icon [Alarm icon](image) is displayed on live video page. You can enter the log interface view the alarm log to learn details information.

**NOTE**

When the device accepts an alarm signal, the alarm icon will display within 10s in the web management system.

--- End
2 Browsing Videos

2.1 Browsing Real-Time Videos

You can browse real-time videos in the web management system.

Description

To browse real-time videos, click Live View. The Live View page is displayed, as shown in Figure 2-1.

Figure 2-1 Live view page

2.2 Playback (Only for Some Models)

When the camera supports SD card, user can view the playback interface as shown in Figure 2-2.
There are two recording modes, schedule record and alarm record, and the alarm recording is in red on timeline.

User can choose main stream or sub stream to play video.

- : Reverse
- : Pause
- : Triple speed -, the slowest speed is 1/4 of normal speed.
- : Triple speed+, the quickest speed is 16 times of normal speed.
- : Snapshot, snapshot the record of playing.
- : Recording, record the video.
- : Audio.
- : Backup, click the icon to start back up the video, drag the time bar to copy the video quickly, click the icon again to end backup. Click to view the status of backup.
3 Configuring the System

3.1 Configuring the Device Information

Description

The device information includes:

- Device ID, name, type, manufacturer name, and firmware version.

**NOTE**
- When the device is upgraded, the device information is updated automatically.
- The device name can be modified at OSD page.

Procedure

Step 1 Click **Setting > System > Information**.

The **Device Information** page is displayed, as shown in Figure 3-1.

![Figure 3-1 Device Information page](image)

Step 2 View the device information.
Table 3-1 Device parameters description

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Device ID</td>
<td>Unique device identifier used by the platform to distinguish the devices.</td>
<td>[Setting method] These parameters cannot be modified at this page.</td>
</tr>
<tr>
<td>Device Name</td>
<td>Name of the device, it can be set at OSD page.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>NOTE</td>
<td>The device name cannot exceed 32 bytes or 10 simplified characters; otherwise, the modification fails.</td>
</tr>
<tr>
<td>Device Type</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>Manufacturer Name</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Model</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Hardware number</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Firmware version</td>
<td></td>
<td></td>
</tr>
<tr>
<td>U-boot version</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Kernel version</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Software sub version</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Intelligent analysis</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

---End

3.2 Configuring the Time

Description

On the **Time** page, you can modify the date and time Parameters that can be set include:

- Network Time Protocol (NTP) server.
- Manual set format of Date and time
- Set time zone
- Enable and set DST (daylight saving time)

Procedure

Step 1 Choose **Setting > System > Date and Time (Time Zone/ DST)**.

The **Date and Time** page is displayed, as shown in Figure 3-2. Table 3-2 describes the parameters.
Figure 3-2 Date and Time page

![Date and Time page]

Figure 3-3 Time Zone page

![Time Zone page]

Figure 3-4 DST

![DST page]

Table 3-2 Time parameters description

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>NTP Server</td>
<td>Enable NTP Service, IP address or domain name of the NTP server.</td>
<td>[Setting method][Setting method] Click the button on to enable NTP and enter a value manually.</td>
</tr>
<tr>
<td>NTP Port</td>
<td>Port number of the NTP server.</td>
<td>[Setting method][Setting method] Enter a value manually.</td>
</tr>
</tbody>
</table>

[Setting method]
### Parameter | Description | Setting
---|---|---
**Frequency of checks** *(Minimum 10s)* | The time interval that the camera synchronizes the NTP server. | [Setting method] Enter a value manually. [Default value] **86400**

**Time** | Enable manual set, you can set the time manual to choose detail time, or tick the sync PC. | [Setting method] Synchronize the time from the PC. Enter a value manually.

**Manually Set** | Enables you to manually set the date format and time format. | [Setting method] Click **Manually Set** and set the date and time in the format

**Time Zone** | N/A | [Setting method] Select a value from the drop-down list box. [Default value] **Greenwich mean time**

**Daylight Savings Time** | When the DST start time arrives, the device time automatically goes forward one hour. When the DST end time arrives, the device time automatically goes backward one hour. **NOTE** DST is the practice of advancing clocks so that evenings have more daylight and mornings have less. Currently, about 110 countries in the world use DST. Different countries have different DST provisions. Since March 27, 2011, Russia has started to use permanent DST. | [Setting method] Click the button on to enable **Daylight savings Time**, set the start time, end time and offset time.

---

**Step 2 Configure the NTP.**

1. Click the button on to enable **NTP**.
2. Enter the IP address or domain name of the NTP server and the port number.
3. Enter the time interval.
4. Click “Apply”, the message "Apply success!" is displayed.

**Step 3 Modify the device time.**

**Synchronizing time from the PC**

Tick sync pc, the message "Apply success!" is displayed.

**Manually setting the device time**

1. Click Set Manually.
2. A time setting control is displayed.
3. Set the date and time.
4. Click “Apply”, the message "Apply success!" is displayed.

   Step 4 Select a time zone from the Time Zone drop-down list box.

   Step 5 Click the button on to enable Daylight saving changes and specify the DST start time and end time, click “Apply”, the message "Apply success!" is displayed.

---End

3.3 Configuring User

Description
You can add, modify, and delete a user in privilege manager page.

Procedure
Step 1 Choose Setting > System > User.

The User page is displayed, as shown in Figure 3-5. Table 3-3 describes the parameters.

![User page]

Step 2 Click “Add” to add a new user, as shown in Figure 3-6.
Table 3-3 User parameters description

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>User Name</strong></td>
<td>User name for logging in to the camera.</td>
<td>[Setting method] Input the name</td>
</tr>
<tr>
<td><strong>Groups</strong></td>
<td>Permission group where a user belongs. The default permission groups are <strong>Super Admin</strong>, <strong>Administrators</strong>, <strong>Operator</strong>, and <strong>Media user</strong>. Their permissions are described as follows: Super Admin: Includes all privileges. Administrators: Remote live, Device Management, Video Management, System Management, Alarm, and Network. Operator: Remote live, Video Management, System Management and Network. Media user: Remote live, Video Management.</td>
<td>[Setting method] Click <strong>Add</strong>, then select a value from the dropdown list box.</td>
</tr>
<tr>
<td><strong>Privilege</strong></td>
<td>To tick the privilege of users. <strong>NOTE</strong>: Super Admin can be viewed only.</td>
<td>[Setting method] Tick the functions required.</td>
</tr>
</tbody>
</table>

Step 3 Add, modify, or delete a user as required. Table 3-4 describes the operations.
Table 3-4 Operation description

<table>
<thead>
<tr>
<th>Function</th>
<th>Procedure</th>
<th>Description</th>
</tr>
</thead>
</table>
| Add      | 1. Click **Add**.  
The **Add User** page is displayed, as shown in Figure 3-7.  
2. Enter a user name, password, confirm password.  
3. Select a group from the drop-down list box.  
4. Check the privilege.  
5. Click **OK**.  
The user is added successfully. | Add an administrator or a common user as shown in Figure 3-7. |
| Modify   | Click ![Modify](image)  
The **Modify User** page is displayed.  
1. Modify the user’s name, password, group, or privilege.  
2. Click **OK**.  
The user is modified successfully. The **User** page is displayed. | Modify the user name, password, group or privilege. |
| Delete   | Select the user from the User list. Click ![Delete](image), the message “Are you sure to delete?” pops up, click **OK**, then the user is deleted successfully. | Delete a user. |
3.4 Modifying Password

Description

You can modify the password at this page.

Procedure

Step 1 Choose Setting > System > Password.

The Password page is displayed, as shown in Figure 3-8.
Figure 3-8 Password page

<table>
<thead>
<tr>
<th>Password</th>
</tr>
</thead>
<tbody>
<tr>
<td>Old Password</td>
</tr>
<tr>
<td>New Password</td>
</tr>
<tr>
<td>Confirm Password</td>
</tr>
</tbody>
</table>

Step 2 Input the old password

Step 3 Input new password and confirm the password.

Step 4 Click “Apply” to save the setting.

**NOTE**

Password requirements:

1. Valid password range 6-32 characters.
2. At least 2 kinds of numbers, lowercase, uppercase or special character contained.
3. Only these special characters are supported: !@#$*+–-

It is advised to restart the device three minutes later after modifying password.

----End

3.5 **Querying Logs**

**Description**

Operation logs record user operations and scheduled task commands during the running of the device.

**Procedure**

Step 1 Choose Setting > System > Log.

The Log page is displayed, as shown in Figure 3-9.
Step 2 Set the search criteria.

1. Click the **Begin Time** and **End Time** text boxes respectively.
2. Select the type of operation logs to be queried from the **Log type** drop-down list box.

A time setting control is displayed.

Step 3 Click **Search**.

The operation logs related to the specified user are displayed.

Step 4 Export the operation logs.

1. Set the start time, end time and log type.
2. Click **Export** on the right of the page.

3. The message, click “OK” save the logs.

----End

### 3.6 Maintenance

**Description**

You can reboot, update, and reset at maintenance page.

**Procedure**

Step 1 Choose **Setting > System > Maintenance**.

The **Camera Maintenance** page is displayed, as shown in Figure 3-10.
Step 2 Click “Reboot”.

1. The message is displayed
2. Click OK to restart.
3. The device is restarted successfully five minutes later.

Step 3 Click “Update”.

1. The browser folder is displayed
2. Click to select the upgrade file.
3. Click Update.

If the message “Upgrade success! The device is rebooting, please login late!” pops up, the program updates successfully and the device is rebooted.

If other information is displayed, select the upgrade package correctly.

Step 4 Click “Reset”.

1. The message is displayed
2. Click OK to reset the device, the device is restored to the factory settings.
3. return to login page.

---End

3.7 Configuring Auto Restart

Description

You can auto restart the device at the fixed time.
Procedure

Step 1 Choose Setting > System > Auto Restart.

The Auto Restart page is displayed, as shown in Figure 3-11.

Figure 3-11 Auto restart

[Image of Auto Restart page with options to enable auto restart and set restart time]

Step 2 Enable the auto restart, as shown in Figure 3-12.

Figure 3-12 Auto restart page

[Image of Auto Restart page with options to enable auto restart and set restart time]

Step 3 Choose the restart time (per day, per week, per month).

Step 4 Click “Apply” to save the setting.

----End
4 Configuring Network

4.1 Setting Network

4.1.1 Setting IP

Step 1 Click Setting > Network > Network. The Network page is displayed, as shown in Figure 4-1.

![Network page](image)

Step 2 Set the parameters according to Table 4-1.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>DHCP</td>
<td>Enable DHCP</td>
<td>---</td>
</tr>
<tr>
<td>IP Address</td>
<td>Device IP address that can be set as required.</td>
<td>[Setting method] Enter a value manually. [Default value] 192.168.0.123</td>
</tr>
<tr>
<td>Subnet Mask</td>
<td>Subnet mask of the network adapter.</td>
<td>[Setting method] Enter a value manually. [Default value] 255.255.255.0</td>
</tr>
<tr>
<td>Gateway</td>
<td>This parameter must be set if the client accesses the device through a gateway.</td>
<td>[Setting method] Enter a value manually. [Default value] 192.168.0.1</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Setting</td>
</tr>
<tr>
<td>---------------------------------</td>
<td>-----------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Obtain DNS automatically</td>
<td>Enable the function, the device can obtain the DNS1 and DNS2 automatically.</td>
<td>---</td>
</tr>
<tr>
<td>DNS 1</td>
<td>IP address of a DNS server.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Default value] 192.168.0.1</td>
</tr>
<tr>
<td>DNS 2</td>
<td>IP address of a domain server.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td></td>
<td>If the preferred DNS server is faulty, the device uses the alternate DNS server to resolve domain names.</td>
<td>[Default value] 192.168.0.2</td>
</tr>
<tr>
<td>MTU (800-1500)</td>
<td>Set the maximum value of network transmission data packets.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOTE</td>
</tr>
<tr>
<td></td>
<td></td>
<td>The MTU value is range from 800 to 1500, the default value is 1500, Please do not change it arbitrarily.</td>
</tr>
</tbody>
</table>

Step 3 Click **Apply**.

If the message "Apply success!" is displayed, click **Confirm**. The system saves the settings. The message "Set network parameter success, please login system again" is displayed. Use the new IP address to log in to the web management system.

If the message "Invalid IP Address", "Invalid Subnet Mask", "Invalid default gateway", "Invalid primary DNS", or "Invalid space DNS" is displayed, set the parameters correctly.

----End

### 4.1.2 Setting Ports

**Description**

You must configure the HTTP port, Data port, Client port for device route mapping in a LAN.

**Procedure**

Step 1 Choose **Setting > Network > Network > Port**. The **Device Port page** is displayed, as shown in Figure 4-2.
Step 2 Set the parameters according to Table 4-2.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>HTTP Port</td>
<td>Port used in web access.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Default value] 80</td>
</tr>
<tr>
<td>HTTPS port</td>
<td>Web mode port.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Default value] 443</td>
</tr>
<tr>
<td>Data Port</td>
<td>RTSP protocol port.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Default value] 554</td>
</tr>
<tr>
<td>Client Port</td>
<td>Port used for audio and video transfer and signaling interaction.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Default value] 30001</td>
</tr>
</tbody>
</table>

**NOTE**

It’s not recommended to modify the control port, for details about the value ranges of the HTTP port, data port, and client port, see the communication matrix.

Step 3 Click **Apply**.

If the “This operation will lead to the device to restart, continue?” dialog box is displayed, click **Confirm**. The system automatically restarts and saves the settings.

If the message "Invalid Control Port, please input an integer between 1025 and 65535" is displayed, enter correct port numbers.

End
4.2 Setting DDNS Parameters

**Preparation**

Connect the specified camera to the Internet, and obtain the user’s name and password for logging into the Dynamic Domain Name System (DDNS) server.

**Procedure**

Step 1 Choose **Setting > Network > DDNS**.

The **DDNS** page is displayed, as shown in Figure 4-3.

![Figure 4-3 DDNS page](image)

Step 2 Set the parameters according to Table 4-3.

**Table 4-3 DDNS parameters description**

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>DDNS</td>
<td>Indicates whether to enable the DDNS service.</td>
<td>[Setting method] Click the button on to enable DDNS. [Default value] OFF</td>
</tr>
<tr>
<td>Protocol</td>
<td>DDNS service protocol. Currently, only 3322 and no_ip are supported.</td>
<td>[Setting method] Select a value from the drop-down list box. [Default value] 3322 NOTE Set this parameter based on the site requirements.</td>
</tr>
<tr>
<td>Domain name</td>
<td>Host name customized by a user.</td>
<td>[Setting method] Enter a value manually. [Default value] Blank</td>
</tr>
</tbody>
</table>
### Parameter | Description | Setting
--- | --- | ---
User | User name for logging in to the DDNS server. | [Setting method] Enter a value manually. [Default value] Blank
Password | Password for logging in to the DDNS server. | [Setting method] Enter a value manually. [Default value] Blank

Step 3 Click **Apply**.

If the message "Apply success!" is displayed, click **Confirm**. The system saves the settings.

If other information is displayed, set the parameters correctly.

--- End

### 4.3 Setting E-mail

**Description**

Set the Simple Mail Transfer Protocol (SMTP) function to send E-mail, the device automatically sends alarm information to specified email addresses when an alarm is generated.

**Procedure**

Step 1 Choose **Setting > Network > E-mail**.

The **E-mail** page is displayed, as shown in Figure 4-4.

![Figure 4-4 E-mail page](image)
Step 2 Set the parameters according to Table 4-4.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>SMTP Server Address</td>
<td>IP address of the SMTP server.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td>SMTP Server Port</td>
<td>Port number of the SMTP server.</td>
<td>[Setting method] Enter a value manually. [Default value] 25</td>
</tr>
<tr>
<td>User Name</td>
<td>User name of the mailbox for sending emails.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td>Password</td>
<td>Password of the mailbox for sending emails.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td>E-mail Sender</td>
<td>Mailbox for sending emails.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td>Alarm Receiver 1</td>
<td>(Mandatory) Email address of recipient 1.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td>Alarm Receiver 2</td>
<td>(Optional) Email address of recipient 2.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td>Alarm Receiver 3</td>
<td>(Optional) Email address of recipient 3.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td>SSL Encryption</td>
<td>Email encryption mode. Set this parameter based on the encryption modes supported by the SMTP server. There are three type to be chosen.</td>
<td>[Setting method] Select a value from the drop-down list box. [Default value] OFF</td>
</tr>
</tbody>
</table>

Step 3 Click Apply.

If the message "Apply success!" is displayed, and the system will save the settings.
If other information is displayed, set the parameters correctly.

----End

4.4 Configuring UPnP

Description

UPnP (Universal Plug and Play), by establishing a mapping relationship between the internal network and the external network, the device of external network can directly access the internal network equipment through the external network IP address.
Procedure

Step 1 Choose Setting > Network > UPnP.

The UPnP page is displayed, as shown in Figure 4-5.

Figure 4-5 UPnP page

Step 2 Enable UPnP, Choose the mode (manual and auto).

1. If you choose manual, user should depend on router’s parameter to set the HTTP port, data port and client port.
2. If user chooses the auto type, the device will set the port automatically.

Step 3 Click Apply to save the settings.

----End

4.5 Configuring SNMP

Description

SNMP (simple network management protocol), user can set SNMPV1, SNMPV2 and SNMPV3.

Procedure

Step 1 Choose Setting > Network > SNMP.

The SNMP page is displayed, as shown in Figure 4-6.
Table 4-5 SNMP parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>SNMPv1</strong></td>
<td>Version of SNMP. SNMPv1 and SNMPv2c use communities to establish trust between managers and agents. Agents support three community names, write community, read community and trap.</td>
<td></td>
</tr>
<tr>
<td><strong>SNMPv2c</strong></td>
<td>Version of SNMP. SNMPv1 and SNMPv2c use communities to establish trust between managers and agents. Agents support three community names, write community, read community and trap.</td>
<td></td>
</tr>
<tr>
<td><strong>Write Community</strong></td>
<td>Name of write community. The write community only can modify data.</td>
<td>[Setting method] Click the button on. [Default value] OFF</td>
</tr>
<tr>
<td><strong>Read Community</strong></td>
<td>Name of read community. The write community only can read data.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td><strong>Trap Address</strong></td>
<td>Name of read community. The write community only can read data.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td>Parameter</td>
<td>Description</td>
<td>Setting</td>
</tr>
<tr>
<td>-----------------</td>
<td>---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
<td>----------------------------------------------</td>
</tr>
<tr>
<td>Trap Port</td>
<td>Management port of accepting message from trap.</td>
<td></td>
</tr>
<tr>
<td>Trap Community</td>
<td>Community string of trap. The trap community string allows the manager to receive asynchronous information from the agent.</td>
<td></td>
</tr>
<tr>
<td>SNMPv3</td>
<td>Version of SNMP. SNMPv3 uses community strings, but allows for secure authentication and communication between SNMP manager and agent.</td>
<td>[Setting method] Click the button on. [Default value] OFF</td>
</tr>
<tr>
<td>Write Security Name</td>
<td>Name of write security.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td>Security Level</td>
<td>Security Level between SNMP manager and agent, includes three levels: Noauth: No authentication and no encryption Auth: Authentication but no encryption Priv: Authentication and encryption</td>
<td>[Setting method] Select a value from the drop-down list box. [Default value] Blank</td>
</tr>
<tr>
<td>Auth Algorithm</td>
<td>Authentication Algorithm, includes MD5 and SHA.</td>
<td>[Setting method] Select a value from the drop-down list box. [Default value] Blank</td>
</tr>
<tr>
<td>Auth Password</td>
<td>Authentication password.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td>Encry Algorithm</td>
<td>Encryption Algorithm, includes DES.</td>
<td>[Setting method] Select a value from the drop-down list box. [Default value] Blank</td>
</tr>
<tr>
<td>Encry Password</td>
<td>Encryption password.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
</tbody>
</table>

Step 2 Click **Apply**.

If the message "Apply success!" is displayed, and the system saves the settings.

----End
4.6 Web Mode

**Description**

Enable web mode, you can access the web interface through https port. User can input ‘https://IP address:https port’ (for example: https://192.168.0.123:1089, 1089 is the https port that is input manually) to enter the web mode.

![Web mode page](image)

4.7 Configuring P2P (Only for Some Models)

**Description**

The camera is online, enable P2P, user can use Inview Pro 4 to scan UUID on page to add to App, so that the camera can be managed by App (Inview Pro 4, the App can be loaded on Apple Store and Google Play).

![P2P page](image)
4.8 Configuring IP Filter

Description
Set the IP address in specified network segment to allow access or prohibit access.

Procedure
Step 1 Choose Setting > Network > IP Filter.
The IP Filter page is displayed, as shown in Figure 4-9.

Figure 4-9 IP Filter page

Step 2 Click the button on to enable IP Filter.
Set the parameters according to Table 4-6

Table 4-6 IP Filter parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>IP Filter</td>
<td>Indicates whether to enable the IP Filter.</td>
<td>[Setting method]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Click the button on.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Default value] OFF</td>
</tr>
<tr>
<td>Rule Type</td>
<td>IP filter type, includes black list and white list.</td>
<td>[Setting method]</td>
</tr>
<tr>
<td></td>
<td></td>
<td>Select a value from the drop-down list box.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>[Default value] Black List</td>
</tr>
</tbody>
</table>
### 4.9 Configuring 802.1X

#### Preparation

802.1x authentication must be configured on the access port, which controls access network resources for the connected user devices on the port.

#### Procedure

Step 1 Choose **Setting > Network > 802.1x**.
The **802.1x** page is displayed, as shown in Figure 4-11.

![Figure 4-11 802.1x page](image)

- Step 2 Click the button on to enable 802.1x.
- Step 3 Enter the account name.
- Step 4 Enter the password and confirm password.
- Step 5 Click Apply.

The message "Apply success!" is displayed, and the system saves the settings.

----End

### 4.10 Configuring **PPPoE**

**Description**

If a PPPoE connection is used, you need to input the user name and password on the **PPPoE** page. After restarting the device, the PPPoE settings take effect and the device obtains a public IP address.

**Procedure**

Step 1 **Choose Setting > Network > PPPoE**.

The **PPPoE** page is displayed, as shown in Figure 4-12.

![Figure 4-12 PPPoE page](image)

- Step 2 Click the button on to enable **PPPoE**.
- Step 3 Set the parameters according to Table 4-7.
Table 4-7 PPPoE parameters

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>PPPoE</td>
<td>Indicates whether to enable the PPPoE service.</td>
<td>[Setting method] Click the button on. [Default value] OFF</td>
</tr>
<tr>
<td>Accounts</td>
<td>User name of PPPoE provided by the network carrier.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
<tr>
<td>Password</td>
<td>Password of PPPoE provided by the network carrier.</td>
<td>[Setting method] Enter a value manually.</td>
</tr>
</tbody>
</table>

Step 4 Click Apply.
If the message "Apply success!" is displayed, and the system saves the settings.
If other information is displayed, set the parameters correctly.

---End

4.11 Configuring CMS

Description
You can view the existing protocol name and version number of the current device on the Setting > Network > CMS Configuration page, as shown in Figure 4-13. Table 4-8 describes the protocol-related parameters.

Figure 4-13 CMS Configuration page
4.12 Platform Access

**Description**

If the device and platform system are not at the same local network, you can connect device and platform system to the external server. You should build a server for platform in advance, platform’s remote IP/Port and IP camera are mapping port to external network.

**Procedure**

Step 1 Choose **Configuration > Network Service > Platform Access**.

The **Platform Access** page is displayed, as shown in Figure 4-14

![Platform Access page](image)

Step 2 Input the parameters. The host name and port are same as the platform, as shown in figure. It is the IP or domain of external network server. The user name and password are same as platform login.
Step 3 Add the IPC to platform, you should input the following information

1: IP/ID/Domain name is device ID of IPC.

2: The connection mode should be chosen **Device active registration.**

Step 4 If you want to encrypt the access, you can enable the Encrypt.

Step 5 Click **Apply.**

The message "Apply success!" is displayed, and the system saves the settings.

----End
5 Configuring the Video/Audio

5.1 Setting Encode Parameters

Procedure

Step 1 Click Setting > Video > Encode. The Encode page is displayed, as shown in Figure 5-1.

![Figure 5-1 Encode page]

Step 2 Set the parameters according to Table 5-1.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Name</td>
<td>Main stream / Sub stream</td>
<td>--</td>
</tr>
</tbody>
</table>
## Parameter | Description | Setting
--- | --- | ---
Encode Type | The video codec determines the image quality and network bandwidth required by a video. Currently, the following code standards are supported: H264, H265 and MJPEG.  
- MJPEG  
  MJPEG is a standard intra-frame compression codec. The compressed image quality is good. No mosaic is displayed on motion images.  
- H264  
  H.264 consists of H.264 Base Profile, H.264 Main Profile, and H.264 High Profile. The performance of H.264 High Profile is higher than that of H.264 Main Profile, and the performance of H.264 Main Profile is higher than that of H.264 Base Profile. If a hardware decoding device is used, select the appropriate codec based on the decoding performance of the device.  
  H.264 High Profile has the highest requirements on the hardware performance, and H.264 Base Profile has the lowest requirements on the hardware performance.  
- H265  
  H.265 is the advanced video encoding standard. It's the improvement standard from H.264. H.265 improves the streams, encoding quality and algorithm complexity to make configuration as optimization. | [Setting method]  
Select a value from the drop-down list box.  
[Default value]  
H.265

Video Encode Type | H.264 is corresponding to three types (low, medium, high).  
H.265 is corresponding to medium | [Setting method]  
Select a value from the drop-down list box.  

Resolution | A higher resolution means better image quality.  
NOTE  
IP cameras support the different resolutions based on the model. | [Setting method]  
Select a value from the drop-down list box.  

Frame Rate (fps) | The frame rate is used to measure displayed frames. A higher frame rate means smoother videos. A video whose frame rate is higher than 22.5 f/s is considered as smooth by human eyes.  
Frame rates for different frequencies are as follows:  
- 50 Hz: 1–25 f/s  
- 60 Hz: 1–30 f/s | [Setting method]  
Select a value from the drop-down list box.  

I Frame Interval (unit: frame) | I frame do not require other frames to decode. A smaller I frame interval means better video quality but higher bandwidth. | [Setting method]  
Select a value from the drop-down list box.
### 5.2 Setting Camera

**Procedure**

Step 1 Choose Setting > Video > Camera.

The Camera page is displayed, as shown in Figure 5-2. Table 5-2 describes the parameters.

#### Figure 5-2 Camera page

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bit Control</td>
<td>The bit rate is the number of bits transmitted per unit of time.</td>
<td>[Setting method]</td>
</tr>
<tr>
<td></td>
<td>The following bit rate types are supported:</td>
<td>Select a value from the drop-down list box.</td>
</tr>
<tr>
<td></td>
<td>Constant bit rate (CBR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The compression speed is fast; however, improper bit rate may cause vague motion images.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Variable bit rate (VBR)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The bit rate changes according to the image complexity.</td>
<td></td>
</tr>
<tr>
<td></td>
<td>The encoding efficiency is high and the definition of motion images can be ensured.</td>
<td></td>
</tr>
<tr>
<td>Bitrate (512-4096)/(128/1536)</td>
<td>Indicates the maximum value of the bit rate.</td>
<td>[Setting method]</td>
</tr>
<tr>
<td></td>
<td>[Setting method]</td>
<td>Enter a value manually.</td>
</tr>
</tbody>
</table>

Step 3 Click **Apply**.

If the message "Apply success!" is displayed, click **Confirm**. The system saves the settings.

If the message "Apply failed!" is displayed, you must apply for the Parameter Configure permission from an administrator.

If a message indicating that the bit rate is out of range is displayed, enter a new bit rate value.

---End
### Table 5-2 Camera parameters description

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Video System</td>
<td>The options are as follows:</td>
<td>[Setting method]</td>
</tr>
<tr>
<td></td>
<td>PAL system used in Europe and China mainland.</td>
<td>Select a value from the drop-down list box.</td>
</tr>
<tr>
<td></td>
<td>NTSC system used in USA and Japan. User can choose the type depending on</td>
<td>[Default value]</td>
</tr>
<tr>
<td></td>
<td>local rules.</td>
<td>50 Hz</td>
</tr>
<tr>
<td></td>
<td></td>
<td>NOTE: Whether the video system can be changed depends on the device</td>
</tr>
<tr>
<td></td>
<td></td>
<td>model.</td>
</tr>
<tr>
<td>Video Refresh Frequency</td>
<td>The options are as follows:</td>
<td>[Setting method]</td>
</tr>
<tr>
<td></td>
<td>50 Hz: corresponds to the PAL system.</td>
<td>Corresponds to the video system.</td>
</tr>
<tr>
<td></td>
<td>60 Hz: corresponds to NTSC system.</td>
<td></td>
</tr>
</tbody>
</table>

Step 2 Click “Apply”. The message ”Apply success!” is displayed. The system saves the settings.

**NOTE**

If the video system is modified, the settings take effect after the device restarts.

----End

### 5.3 Video Decoding (Only for Some Models)

There are two modes to decode video, hardware decoding and software decoding. The default is hardware decoding, the usage of CPU is lower. The software decoding will provide the superior image quality.

This function can only be used in IE browser.

![Video decoding](image)

**Figure 5-3 Video decoding**

### 5.4 Volume Control (Only for Some Models)

The volume control is used for the cameras which have built-in microphone and speaker.

**Procedure**

Step 1 Choose Setting > Video > Volume Control.

The volume control page is displayed, as shown in Figure 5-4.
Figure 5-4 Volume control page

Step 2 Adjust the volume of microphone and speaker.

---End
6 Configuring Image

6.1 Setting Image Parameters

Description
At image page, user can set Setup Color Parameters, Image Adjustment, White Balance, Scene, Exposure, Daynight, Noise Reduction, and Enhance Image.

Procedure
Step 1 Choose Setting > Image > Image.

The Image page is displayed, as shown in Figure 6-1.

Figure 6-1 Image page

Step 2 Choose color parameter, auto or timing switching.
1. Select time switching
2. Set the start time and end time.
Step 3 Set image adjustment, as shown in Figure 6-2.

Figure 6-2  Image adjustment

Table 6-1 Image adjustment

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Configuration Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Brightness</strong></td>
<td>It indicates the total brightness of an image. As the value increases, the image becomes brighter.</td>
<td>[Setting method] Drag the slider. [Default value] 50</td>
</tr>
<tr>
<td><strong>Saturation</strong></td>
<td>It indicates the color saturation of an image. As the value increases, the image becomes more colorful.</td>
<td>[Setting method] Drag the slider. [Default value] 50</td>
</tr>
<tr>
<td><strong>Sharpness</strong></td>
<td>It indicates the definition of an image. As the value increases, the image becomes more clearer.</td>
<td>[Setting method] Drag the slider. [Default value] 50</td>
</tr>
<tr>
<td><strong>Contrast</strong></td>
<td>It indicates the contrast between the bright part and the dark part of an image. As the value increases, the contrast increases.</td>
<td>[Setting method] Drag the slider. [Default value] 50</td>
</tr>
</tbody>
</table>

Step 4 Set the white balance, as shown in Figure 6-3.
### White Balance

<table>
<thead>
<tr>
<th>Mode</th>
<th>Meaning</th>
<th>Configuration Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Mode</strong></td>
<td>It is adjusted based on application scenarios to improve the fidelity of the image color. The WB modes include:</td>
<td>[Setting method] Select a value from the drop-down list. [Default value] <strong>Auto</strong></td>
</tr>
<tr>
<td><strong>Red Gain</strong></td>
<td>It indicates the gain applied to red channels. As the value increases, the color temperature becomes lower.</td>
<td>[Setting method] Drag the slider. [Default value] <strong>50</strong></td>
</tr>
<tr>
<td><strong>Blue Gain</strong></td>
<td>It indicates the gain applied to blue channels. As the value increases, the color temperature becomes higher.</td>
<td>[Setting method] Drag the slider. [Default value] <strong>50</strong></td>
</tr>
</tbody>
</table>

Step 5 Set Scene, as shown in Figure 6-4.

### Scene

<table>
<thead>
<tr>
<th>Scene</th>
<th>Meaning</th>
<th>Configuration Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scene</strong></td>
<td></td>
<td>[Setting method] Drag the slider. [Default value] <strong>Outdoor</strong></td>
</tr>
<tr>
<td><strong>Mirror</strong></td>
<td></td>
<td>[Setting method] Drag the slider. [Default value] <strong>Normal</strong></td>
</tr>
</tbody>
</table>
### Scene
- **Description**: It indicates the working mode of a camera.
  - Outdoor: It applies to outdoor scenarios.
  - Indoor: It applies to indoor scenarios.

### Mirror
- **Description**: It is used to select the pixel location of an image.
  - Normal: The image does not flip.
  - Horizontal: The image flips left and right.
  - Vertical: The image flips up and down.
  - Horizontal and vertical: The image rotates at 180 degrees.

---

**Step 6** Set exposure as shown in Figure 6-5.

![Exposure page](image)

**Parameter** | **Meaning** | **Configuration Method**
--- | --- | ---
**Exposure Mode** | The exposure modes include:
  - **Auto**: The system performs auto exposure based on the monitoring environment.
  - **Manual**: You can adjust the brightness of an image by setting the exposure time.
 | [Setting method] Select a value from the drop-down list.
 | [Default value] **Auto**

**Exposure Time** | The device automatically adjusts the shutter time based on the ambient brightness. The shutter time is less than or equal to the value of this parameter.
 | [Setting method] Select a value from the drop-down list.
 | [Default value] **1/30**

---

**Step 7** Set daynight, as shown in Figure 6-6.

![DayNight page](image)
### Parameter Table

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Meaning</th>
<th>Configuration Method</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Day Night Setting</strong></td>
<td>It can be set to <strong>Auto, Day, Night or Timing</strong>.</td>
<td>[Setting method]</td>
</tr>
<tr>
<td></td>
<td><strong>Auto mode</strong></td>
<td>Select a value from</td>
</tr>
<tr>
<td></td>
<td>The image color and filter status are automatically switched based on</td>
<td>the drop-down list.</td>
</tr>
<tr>
<td></td>
<td>the ambient brightness. The filter prevents infrared light from</td>
<td>[Default value]</td>
</tr>
<tr>
<td></td>
<td>entering the sensor in the day state and allows all types of light to</td>
<td><em>Auto</em></td>
</tr>
<tr>
<td></td>
<td>enter the sensor in the night state.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Day mode</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The image is colored, and the filter is in the day state, preventing</td>
<td></td>
</tr>
<tr>
<td></td>
<td>infrared light from entering the sensor.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Night mode</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>The image is black and white, and the filter is in the night state,</td>
<td></td>
</tr>
<tr>
<td></td>
<td>allowing infrared light to enter the sensor.</td>
<td></td>
</tr>
<tr>
<td></td>
<td><strong>Timing</strong></td>
<td></td>
</tr>
<tr>
<td></td>
<td>Set day to night time and night to day time to switch the daynight</td>
<td></td>
</tr>
<tr>
<td></td>
<td>mode.</td>
<td></td>
</tr>
<tr>
<td><strong>Sensitivity</strong></td>
<td>It determines the day-to-night switching in auto mode. When the system</td>
<td>[Setting method]</td>
</tr>
<tr>
<td></td>
<td>gain is greater than the value of this parameter, the system enters</td>
<td>Drag the slider.</td>
</tr>
<tr>
<td></td>
<td>the night mode.</td>
<td>[Default value]</td>
</tr>
<tr>
<td></td>
<td><strong>NOTE</strong></td>
<td><em>50</em></td>
</tr>
<tr>
<td></td>
<td>This parameter is valid in auto mode. The sensitivity of day and night</td>
<td></td>
</tr>
<tr>
<td></td>
<td>switching, the higher the sensitivity, the more sensitive the light</td>
<td></td>
</tr>
<tr>
<td></td>
<td>intensity is, and it may switch to day mode under low light.</td>
<td></td>
</tr>
</tbody>
</table>

**Infrared lamp & warm light mode:**

**Auto:** The image will be colored when the light strength is strong; the image would be white-black when the light strength is low, the infrared lamp will be open. It will turn on the white light when capturing the human body, if the human is disappearing, the white light will be lasting 30s, the white light is be closed, infrared lamp will be open.

**Day Mode:** The image always be colored, it will open the white light when the light strength is low.

**Night Mode:** The image will be colored when the light strength is strong; the image would be white-black when the light strength is low, the infrared lamp will be open.

**Infrared lamp mode:**

**Auto:** The image will be colored when the light strength is strong; the image would be white-black when the light strength is low, the infrared lamp will be open.

**Day Mode:** Never open the infrared lamp, the image is colored.

**Night Mode:** Open the infrared lamp, the image is white and black.

**Timing:** It will switch to night or day mode when the set time is reached.
Step 8 Set noise reduction, as shown in Figure 6-7.

Figure 6-7 Noise reduction page

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Meaning</th>
<th>Configuration Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>2D NR</td>
<td>Reduce noise of image. Valid for static noise, the larger the value, the effect the better</td>
<td>[Configuration method] Tick the 2D NR, and drag the slider [Default value] 50</td>
</tr>
<tr>
<td>3D NR</td>
<td>Reduce noise of image. It is effective for moving noise. The larger the value, the stronger the noise reduction intensity, but it will cause smearing of moving objects.</td>
<td>[Configuration method] Tick the 3D NR, and drag the slider [Default value] 50</td>
</tr>
</tbody>
</table>

Step 9 Set enhance image, as shown in Figure 6-8.

Figure 6-8 Enhance image page
### 6.2 Setting OSD Parameters

**Description**

The on-screen display (OSD) function allows you to display the device name, and time, device name can be set at this page. You can drag the OSD frames to anywhere you want to put.

The OSD supports simplified Chinese, English, numbers and some special character.

**Procedure**

Step 1 Choose **Setting > Image > OSD**.

The **OSD** page is displayed, as shown in Figure 6-9. Table 6-2 describes the parameters.

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Meaning</th>
<th>Configuration Method</th>
</tr>
</thead>
<tbody>
<tr>
<td>WDR</td>
<td>It can work on the dark and bright areas on the image and create a balance to improve the overall image quality to avoid overexposure or loss of details</td>
<td>[Setting method] Tick the WDR mode and drag the slider. [Default value] 50</td>
</tr>
<tr>
<td>HLC</td>
<td>It provides a clearer view of an image in the high light environment. When HLC is enabled, the total brightness of an image is reduced, allowing you to view objects in front of the high light.</td>
<td>[Setting method] Tick the HLC mode and drag the slider. [Default value] Close</td>
</tr>
<tr>
<td>BLC</td>
<td>It provides a clearer view of an image in the backlight environment. When BLC is enabled, the total brightness of an image increases, allowing you to view objects in front of the backlight. Meanwhile, the objects behind the backlight are exposed excessively.</td>
<td>[Setting method] Tick the HLC mode and drag the slider. [Default value] Close</td>
</tr>
<tr>
<td>DeFog</td>
<td>It provides a clearer view of an image in the fogged environment when Defog is enabled. As the value increases, the image becomes clearer.</td>
<td>[Setting method] Tick the Defog mode and drag the slider. [Default value] Close</td>
</tr>
</tbody>
</table>

Step 10 Click **Apply** to save the settings.

Click “Factory Setting”, the image setting will restore the factory settings.

---End
Table 6-2 OSD parameters description

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Description</th>
<th>Setting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Time</td>
<td>Indicates whether to display the time.</td>
<td>[Setting method] Enable</td>
</tr>
<tr>
<td>Device name</td>
<td>Indicates whether to display the device name</td>
<td>[Setting method] Enable, input the device name, the default value is Device.</td>
</tr>
<tr>
<td>Custom character</td>
<td>Input the chars, it supports adding up to 6 groups, you can also add picture to overlay</td>
<td>--</td>
</tr>
</tbody>
</table>

Step 2 Click “Apply”. The message "Apply success" is displayed.

End

6.3 Configuring the Privacy Zone

Procedure

Step 1 Choose Setting > Image > Privacy Zone.

The Privacy Zone page is displayed, as shown in Figure 6-10.
Step 2 Press and hold the left mouse button, and drag on the preview image to cover the part to be masked.

- **NOTE**
  - The maximum percentage of an image that can be masked depends on the device model. Read the tip displayed on the page. A maximum of four areas can be masked.
  - Choose the privacy zone, and double click left mouse button to delete the privacy zone.

Step 3 Click “Apply” to save settings.

The message ” Apply success!” is displayed, the system saves the settings.

---End
7 Configuring Record (Only for Some Models)

7.1 Record Schedule

Install the SD card at first, enable “Record Enable”, enable “Record Audio”, set the schedule to record, as shown in Figure 7-1.

Click “Apply” to save the settings.

-----End

7.2 SD Card

At SD Card interface, user can format the SD card, set the recording overwrite.

Click “Apply” to save the settings.

-----End
8 Configuring AI/Event

8.1 Setting Motion Detection

**Description**

On the Motion Alarm page, you can perform the following operations:

- Enable the motion alarm function.
- Set the motion detection area.
- Set the sensitivity of motion alarm.

When the alarm output function is enabled and the camera detects that an object moves into the motion detection area within the schedule time, the camera generates an alarm.

**Procedure**

Step 1 Choose Setting > Alarm > Motion Alarm.

The Motion Alarm page is displayed, as shown in Figure 8-1.

![Motion Alarm page](image)

Step 2 Enable the event actions, push message and send E-mail.

Step 3 Set alarm areas, drag and release mouse to select area (the default value is whole picture). Choose the sensitivity.
Figure 8-2  Motion Area Setting page

**NOTE**
Double click left mouse button to delete all detection areas.

Step 4 Press and hold the left mouse button, and drag in the video area to draw a detection area, as shown in Figure 8-2.

Step 5 Configure the schedule time setting.

**Method 1:** Click left mouse button to select any time point within 0:00-24:00 from Monday to Sunday as shown in Figure 8-3.

**Method 2:** Hold down the left mouse button, drag and release mouse to select the schedule within 0:00-24:00 from Monday to Sunday.
When you select time by dragging the cursor, the cursor cannot be moved out of the time area. Otherwise, no time can be selected.

**Method 3:** Click 📅 in the schedule page to select the whole day or whole week.

Deleting deployment time: Click 🗑️ again or inverse selection to delete the selected schedule. Configure the detection area.

Step 6 Click “Apply”.

The message "Apply success" is displayed. The system saves the settings.

---

**8.2 Set Intelligent Analysis**

**8.2.1 Intrusion**

At **Setting > AI/Event > Intrusion** interface, enable the function, if human enter the deployment area of intrusion, it will generate the alarm, as shown in Figure 8-4.

![Figure 8-4 Intrusion – Event actions](image)

User can choose alarm record (The SD card is installed in the camera in advance.) and sent E-mail (set at “**Setting > Network > E-mail**” interface) to show the alarm information.

Click the “Area” at the page to set the area to deploy, as shown in Figure 8-5.
Move the cursor to the drawing interface and click to generate a point, move the cursor to draw a line, and then click to generate another point. This is how a line is generated. In this way, continue to draw lines to form any shape, and right-click to finish line drawing.

**NOTE**
- A drawn line cannot cross another one, or the line drawing fails.
- Any shape with 8 sides at most can be drawn.
- The quantity of deployment areas is not limited yet and will be described in future when a limit is applied.

Set the schedule to deploy, the default setting as shown in Figure 8-6. User can modify it manually following as 8.1 Step 5.

Click “Apply”.

The message "Apply success" is displayed, the system saves the settings.

---End
8.2.2 Line Crossing

At Setting > AI/Event > Line Crossing interface, line crossing is a line that is set at a concerned position within the monitored field of view and specifies the forbidden travel direction, an alarm is generated when the people cross this line.

Enable line crossing, choose the event actions, as shown in Figure 8-7.

**Drawing a line**: move the cursor to the drawing interface, hold down the left mouse button, and move the cursor to draw a line. When you release the left mouse button, a line crossing is generated.

**Setting a line crossing**: click a line (and the trip line turns red) to select the single virtual fence and set its direction as positive, reverse or bidirectional, or delete the selected line. You can also press and hold left mouse button at the endpoint of a line crossing and move the mouse to modify the position and length of line. You can right-click to delete the line. It supports up to 4 lines be drawn.
It sounds an alarm when people cross the line in the direction of the arrow.

**Figure 8-9 Line Crossing – Schedule**

Set the schedule, click “**Apply**” to save the settings.

----End

**8.2.3 Advance**

The white light can be opened only the settings are meeting the following: the day-night mode is auto, the ambient brightness is not enough, the camera detects the human.

**Figure 8-10 Advanced**

The value of sensitivity is 1 or 2, the static object will not be detected as human. If the value is 3/4/5, the camera will detect the static objects and it maybe detect some special objects as human body.

Enable the white light, someone triggers the intrusion or line crossing alarm, the white will be open, the light will open for the setting duration.

If the white light is disable, the white light is opened when the camera detects the human body.

----End
9 Local Configuration

Description
You can save the snapshots and records to local. The local configuration can only be shown in IE Browser. For other browsers, the snapshots will be saved to the default folder.

Procedure
Step 1 Choose Local > Download Config.

The Download Config page is displayed, as shown in Figure 9-1.

Figure 9-1 Local Config page

Step 2 Set image download path (save the snapshot).
Step 3 Set video download path (save the record).
Step 4 The message "Apply success!" is displayed, and the system saves the settings.

---End
Table 10-1 describes the common problems and solutions.

<table>
<thead>
<tr>
<th>Common Problems</th>
<th>Possible Cause</th>
<th>Solution</th>
</tr>
</thead>
<tbody>
<tr>
<td>When you enter the device IP address in the address box of Internet Explorer and press Enter, the message &quot;There is a problem with this website's security certificate.&quot; is displayed.</td>
<td>The certificate is not installed.</td>
<td>Click <strong>Continue to this website (not recommended)</strong>.</td>
</tr>
</tbody>
</table>
| The web management system cannot be accessed.                                   | The network is disconnected.                                                   | ● Connect the PC directly to the camera, and verify that the web management system can be accessed.  
                                                                                                      |                                  | ● Run the **ping** command to verify that the camera is reachable.                     |
|                                                                                  | The IP address is used by another device.                                      | Connect the PC directly to the camera and configure the IP address of the camera. |
|                                                                                  | The IP addresses of the PC and IP camera are on different networks.           | Check the IP address, subnet mask, and gateway settings on the IP camera, and change the settings as required. |
| After the IP camera is upgraded, the web management system cannot be accessed. | The browser cache is not deleted.                                              | To delete the browser cache, proceed as follows: (Microsoft Edge is used as an example.)  
                                                                                                      |                                  | 1. Open Internet Explorer.  
                                                                                                      |                                  | 2. Choose **Tools > Internet Options**.  
                                                                                                      |                                  | 3. Click **Delete**.  
                                                                                                      |                                  | 4. The **Delete Browsing History** dialog box is displayed.  
                                                                                                      |                                  | 5. Select all check boxes.  
                                                                                                      |                                  | 6. Click **Delete**.  
                                                                                                      |                                  | 7. Log in to the web management system again. |
| The IP camera cannot be upgraded.                                               | The network is disconnected.                                                   | Make sure that the upgrade network is connected. Check the network settings are correct or not. |
|                                                                                  | The network settings are incorrect.                                            |                                                                          |
|                                                                                  | The upgrade package is incorrect.                                              | Obtain the correct upgrade package and upgrade the IP camera again.        |
# Acronyms and Abbreviations

<table>
<thead>
<tr>
<th></th>
<th>Acronym</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>ADSL</td>
<td>Asymmetric Digital Subscriber Line</td>
</tr>
<tr>
<td>C</td>
<td>CBR</td>
<td>Constant Bit Rate</td>
</tr>
<tr>
<td>D</td>
<td>DHCP</td>
<td>Dynamic Host Configuration Protocol</td>
</tr>
<tr>
<td></td>
<td>DNS</td>
<td>Domain Name Server</td>
</tr>
<tr>
<td></td>
<td>DDNS</td>
<td>Dynamic Domain Name Server</td>
</tr>
<tr>
<td>G</td>
<td>GAMA</td>
<td>Graphics Assisted Management Application</td>
</tr>
<tr>
<td>H</td>
<td>HTTP</td>
<td>Hyper Text Transfer Protocol</td>
</tr>
<tr>
<td></td>
<td>HTTPS</td>
<td>Hyper Text Transfer Protocol over Secure Socket Layer</td>
</tr>
<tr>
<td>I</td>
<td>ISO</td>
<td>International Standard Organized</td>
</tr>
<tr>
<td></td>
<td>IP</td>
<td>Internet Protocol</td>
</tr>
<tr>
<td></td>
<td>ID</td>
<td>Identity</td>
</tr>
<tr>
<td></td>
<td>IPC</td>
<td>Internet Protocol Camera</td>
</tr>
<tr>
<td>L</td>
<td>LPS</td>
<td>Limited Power Source</td>
</tr>
<tr>
<td>M</td>
<td>MJPEG</td>
<td>Motion Joint Photographic Experts Group</td>
</tr>
<tr>
<td></td>
<td>MAC</td>
<td>Media Access Control</td>
</tr>
<tr>
<td>N</td>
<td>NTP</td>
<td>Network Time Protocol</td>
</tr>
<tr>
<td></td>
<td>NTSC</td>
<td>National Television Standards Committee</td>
</tr>
<tr>
<td>O</td>
<td>OSD</td>
<td>On Screen Display</td>
</tr>
<tr>
<td>P</td>
<td>PoE</td>
<td>Power over Ethernet</td>
</tr>
<tr>
<td>---------</td>
<td>--------------</td>
<td>---------------------</td>
</tr>
<tr>
<td>PPPoE</td>
<td>Point-to-Point Protocol over Ethernet</td>
<td></td>
</tr>
<tr>
<td>PTZ</td>
<td>Pan/Tilt/Zoom</td>
<td></td>
</tr>
<tr>
<td>S</td>
<td>SMTP</td>
<td>Simple Mail Transfer Protocol</td>
</tr>
<tr>
<td>U</td>
<td>UUID</td>
<td>Universally Unique Identifier</td>
</tr>
<tr>
<td>V</td>
<td>VBR</td>
<td>Variable Bit Rate</td>
</tr>
</tbody>
</table>