IP Camera Setting Manual

Thanks for purchasing our product. Before operating the unit, please read the instructions carefully and keep this manual for future reference.

Safety Warning

⚠ **1. Read this manual carefully before installing the unit**

Please read this manual first for correct installation and operation.

⚠ **2. Never install the camera on a ceiling that cannot hold its weight**

The product may fall down and cause damages.

⚠ **3. Never install the camera near electric or magnetic fields**

Install the camera away from TV, radio transmitter, magnet, electric motor, transformer, audio speakers since the magnetic fields generate from above devices would distort the video image.

⚠ **4. Never install or use the camera in areas exposed to water, oil or gas**

The water, oil or gas may result in operation failure, electric shock or fire. Do not use this unit near water-for example, near a bath tub, wash bowl, kitchen sink, or laundry tub, in a wet basement, near a swimming pool, in an unprotected outdoor installation, or any area which is classified as a wet location.

⚠ **5. Never face the camera toward the sun**

Direct sunlight or severe ray may cause fatal damage to sensor and internal circuit.

⚠ **6. Power Cord Protection**

Touching the wet power cord with hands or touching the power cord with wet hands may result in electric shock. Power supply cords should be routed so that they are not likely to be walked on or pinched by items placed upon or against them, playing particular attention to cords and plugs, convenience receptacles, and the point where they exit from the appliance.

⚠ **7. Attachments**

Do not use attachment not recommended by the product manufacturer as they may cause hazards.

⚠ **8. Object and Liquid Entry**

Never push objects of any kind into this product through openings as they may touch dangerous voltage points or short-out parts that could result in a fire or electric shock. Never spill liquid of any kind onto the product.

⚠ **9. Do not operate the camera in environments where the temperature, humidity or power source is beyond the specified ones**

Use the camera in suitable environments where the temperature is within -10°C~50°C and humidity below 80%. Use the input power source as this instruction indicated.

⚠ **10. Cleaning**

Unplug the unit from the outlet before cleaning. Do not use liquid cleaners or aerosol cleaners. Use a damp cloth for cleaning.

⚠ **11. Never disassemble the camera nor put impurities in it**

Disassembly or impurities may result in trouble or fire.

⚠ **12. Stop using when the product emits smoke or abnormal heat**

⚠ **13. Servicing**

Do not attempt to repair this unit yourself as opening or removing covers may expose you to dangerous voltage or other hazards. Refer all servicing to qualified service personnel.

⚠ **14. Retain Instructions**

THE SAFETY AND OPERATING INSTRUCTIONS SHOULD BE RETAINED FOR FUTURE REFERENCE.

NOTE:
The information in this manual was current when published. The manufacturer reserves the right to revise and improve its products. All specifications are therefore subject to change without notice.
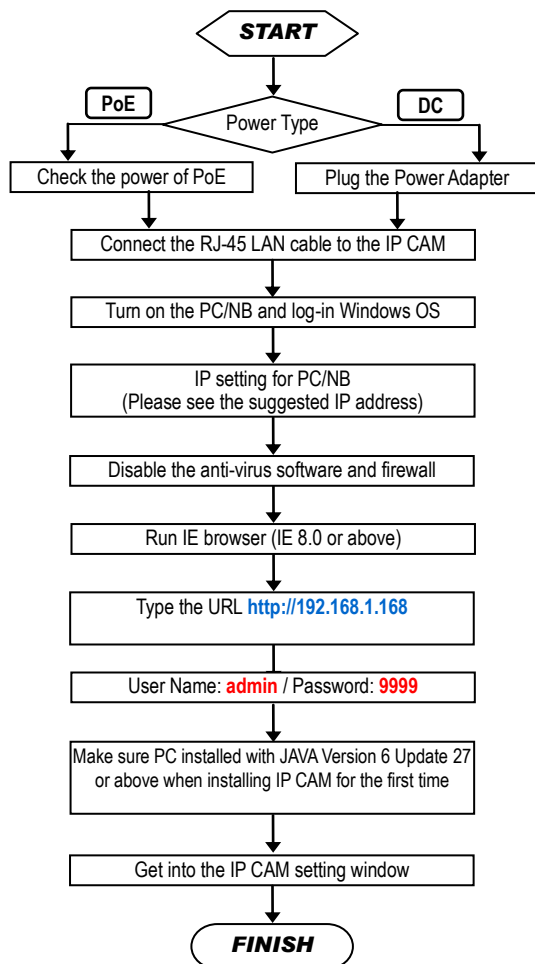
Table of Contents

1. Installation

1.1 Installation

Installation Flow Chart

```
                    ┌──────────────┐
                    │    START     │
                    └──────┬───────┘
                           │
         ┌─────┐        ◇  ▼  ◇        ┌─────┐
         │ PoE │◄─────◇ Power Type ◇─────►│ DC  │
         └──┬──┘        ◇     ◇        └──┬──┘
            │                              │
   ┌────────▼─────────┐        ┌───────────▼────────┐
   │Check the power of PoE│      │ Plug the Power Adapter │
   └────────┬─────────┘        └───────────┬────────┘
            │                              │
   ┌────────▼──────────────────────────────▼────────┐
   │  Connect the RJ-45 LAN cable to the IP CAM      │
   └────────────────────┬────────────────────────────┘
                        │
   ┌────────────────────▼────────────────────────────┐
   │  Turn on the PC/NB and log-in Windows OS         │
   └────────────────────┬────────────────────────────┘
                        │
   ┌────────────────────▼────────────────────────────┐
   │  IP setting for PC/NB                            │
   │  (Please see the suggested IP address)           │
   └────────────────────┬────────────────────────────┘
                        │
   ┌────────────────────▼────────────────────────────┐
   │  Disable the anti-virus software and firewall    │
   └────────────────────┬────────────────────────────┘
                        │
   ┌────────────────────▼────────────────────────────┐
   │  Run IE browser (IE 8.0 or above)                │
   └────────────────────┬────────────────────────────┘
                        │
   ┌────────────────────▼────────────────────────────┐
   │  Type the URL http://192.168.1.168               │
   └────────────────────┬────────────────────────────┘
                        │
   ┌────────────────────▼────────────────────────────┐
   │  User Name: admin / Password: 9999               │
   └────────────────────┬────────────────────────────┘
                        │
   ┌────────────────────▼────────────────────────────┐
   │Make sure PC installed with JAVA Version 6 Update 27│
   │ or above when installing IP CAM for the first time │
   └────────────────────┬────────────────────────────┘
                        │
   ┌────────────────────▼────────────────────────────┐
   │  Get into the IP CAM setting window              │
   └────────────────────┬────────────────────────────┘
                        │
                 ┌──────▼───────┐
                 │   FINISH     │
                 └──────────────┘
```

- ■ **Default Settings of IP CAM**
  IP Address : **192.168.1.168**
  User Name : **admin**
  Password   : **9999**

- ■ **Suggested IP Address for PC/NB**
  IP Address   : **192.168.1.200**
 Subnet Mask   : **255.255.255.0**
  Gateway   : **192.168.1.1**

1.2 Direct Link

Make sure PC installed with JAVA Version 6 Update 30 or above
(1) Plug the power adapter to IP CAM.
(2) Run the IE browser with **http://192.168.1.168**
(3) When the log-in window pop-up, please input the **User Name** and **Password**.
(4) Whenever the connection is ready, the main page (setting window) of IP CAM will show on.

Adapter
DC12V

Cat-5 LAN cable
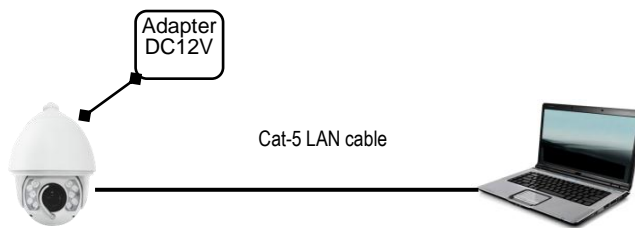
1.3 Link via Hub / PoE Hub
(Applied only to models with PoE function)

Make sure PC installed with JAVA Version 6 Update 30 or above
(1) Run the IE browser with http://192.168.1.168
(2) When the log-in window pop-up, please input the User Name and Password.
(3) Whenever the connection is ready, the main page (setting window) of IP CAM will show on.

Cat-5 LAN cable   PoE / Hub   Cat-5 LAN cable
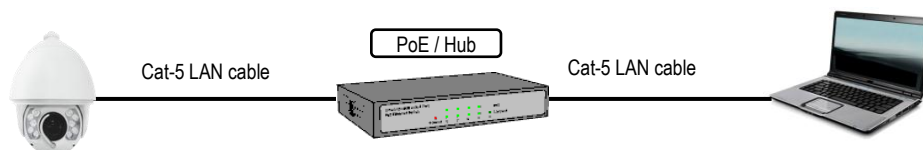
2. USER INTERFACE

2.1 Login

1. Start the browser, and input *http://192.168.1.168/* in the address field, then press *Enter*.

> **NOTE:**
>
> It is strongly suggested that the user browse with Internet Explorer. Browsers other than Internet Explorer are NOT fully supported when the manual published, hence, the manufacturer WILL NOT BE LIABLE FOR ANY LOSS OR DAMAGE CAUSED.

2. Enter *User Name* and *Password* In the prompt window, and click **OK**.

The default User Name and Password is *admin* and *9999*. You will need to enter the account and password every time whenever you restart the application or reconnect.

2.2 Interface Overview

After login to the system, the screen will be displayed as below:
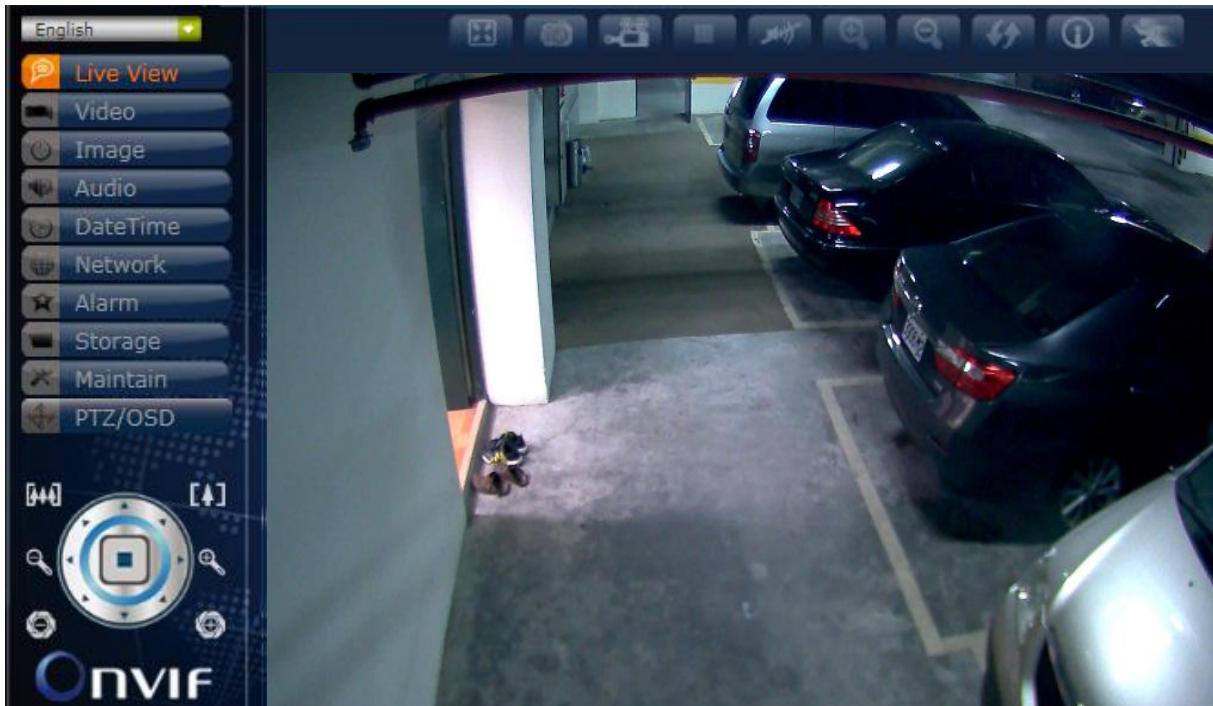
On the left side are the buttons of the function pages. The functions each page performs are listed in the table below. More information will be given in the following sections. Whenever the adjustment completed, click **Submit** to save the settings.

Note: The content of the function pages may vary by model.

Live View	Live View
Video	Video
Image	Image
Audio	Audio
DateTime	DateTime
Network	Network
Alarm	Alarm
Storage	Storage
Maintain	Maintain
PTZ/OSD	PTZ/OSD

1. Live View
Main page. Display the image captured by the camera.

	Language:
English ▼	English / 日本语 / 繁中 / 简体中文 / Россия / Magyar / Deutsch / ايرانى / España / Polska / Nederlands / Portuguese / Francais / Italian
	(Language options may vary by region)

Icon	Function	Icon	Function	Icon	Function
	Full Screen		Zoom in		Upload File (Function enabled when SD card is inserted)
	Snapshot		Zoom out		
	Start Record		Default Size		
	Stop Record		Alarm Status		
	Disable Audio Enable Audio		Motion Status		

PTZ Control *(Applied only to models with PTZ function)***:**

Icon	Function	Icon	Function
	Stop (center button) / 8-direction Keys (outer buttons)		
	Zoom Out		Zoom In
	Focus Far		Focus Near
	Iris close		Iris open

2. Video

Modify the settings of IP video settings, including Stream, OSD, and Privacy Mask.
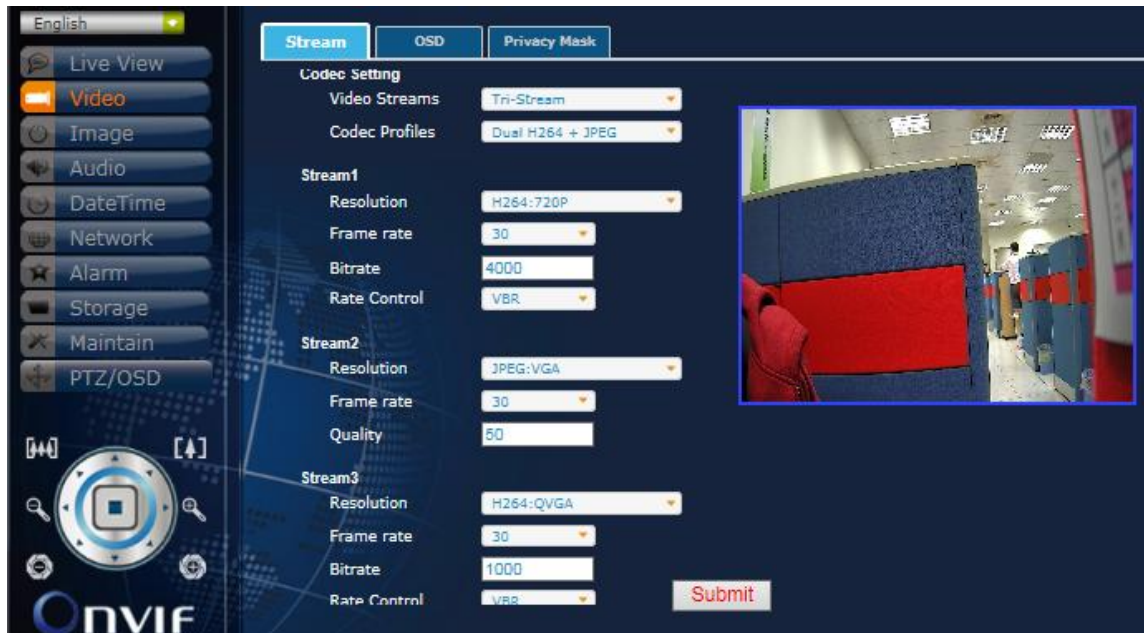
Stream
Codec Setting

Video Streams	Single, Dual, Tri-Stream
Codec Profiles	H.264 MPEG4 MJPEG (Auto change by Video Streams selection)

Stream1 (Video Streams: Single)

Resolution	H264: D1, 720P, SXGA, 1080P; MPEG4: D1, 720P, SXGA, 1080P; MJPEG: 1080P (Suggested)
Frame rate	30, 25, 20, 15, 10, 5, 3, 1 (NTSC); 25, 20, 15, 12, 10, 5, 3, 1 (PAL)
Bitrate	4000 (Default, adjustable)
Rate Control	VBR, CBR, OFF

Stream2 (Video Streams: Dual)

Resolution	H264: QVGA, VGA, D1; MPEG4: QVGA, VGA, D1; MJPEG: VGA, D1 (Suggested)
Frame rate	30, 25, 20, 15, 10, 5, 3, 1 (NTSC); 25, 20, 15, 12, 10, 5, 3, 1 (PAL)
Quality	50 (Default, adjustable)

Stream3 (Video Streams: Tri-Stream)

Resolution	H264: QVGA; MPEG4: QVGA (Suggested)
Frame rate	30, 25, 20, 15, 10, 5, 3, 1 (NTSC); 25, 20, 15, 12, 10, 5, 3, 1 (PAL)
Bitrate	1000 (Default, adjustable)
Rate Control	VBR, CBR, OFF
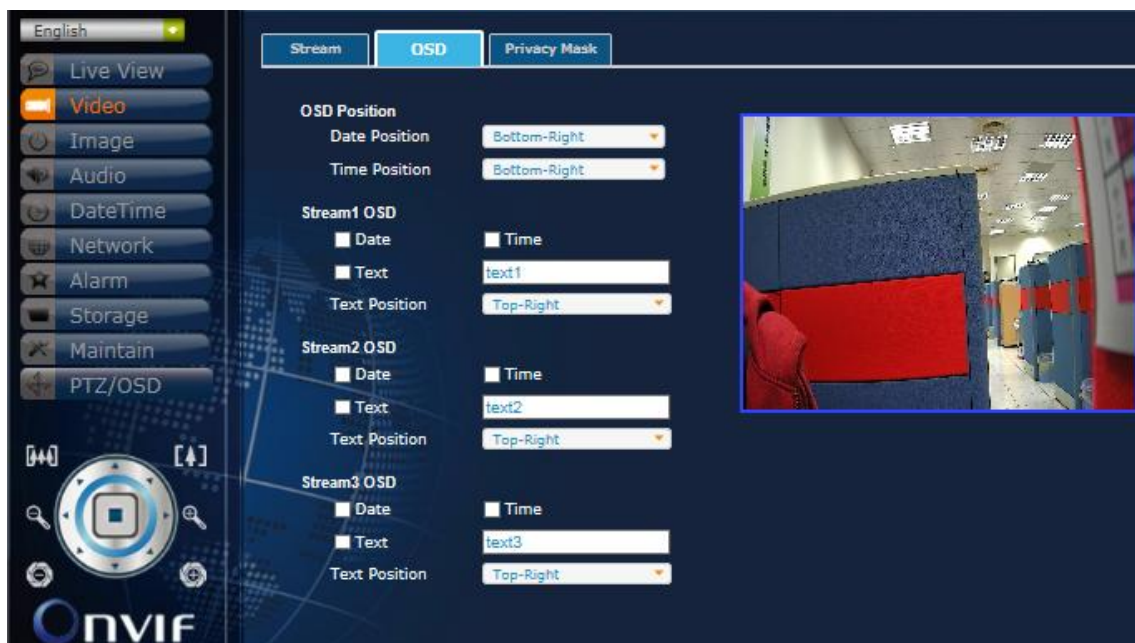
OSD
OSD Position

Date Position	Bottom-Right, Bottom-Left, Top-Left, Top-Right
Time Position	Bottom-Right, Bottom-Left, Top-Left, Top-Right

Stream1 OSD

Date / Time	Check the box to enable Date / Time display
Text	Check the box to enable Text display and enter the desired texts accordingly
Text Position	Top-Left, Top-Right

Stream2 OSD

Date / Time	Check the box to enable Date / Time display
Text	Check the box to enable Text display and enter the desired texts accordingly
Text Position	Top-Left, Top-Right

Stream3 OSD

Date / Time	Check the box to enable Date / Time display
Text	Check the box to enable Text display and enter the desired texts accordingly
Text Position	Top-Left, Top-Right
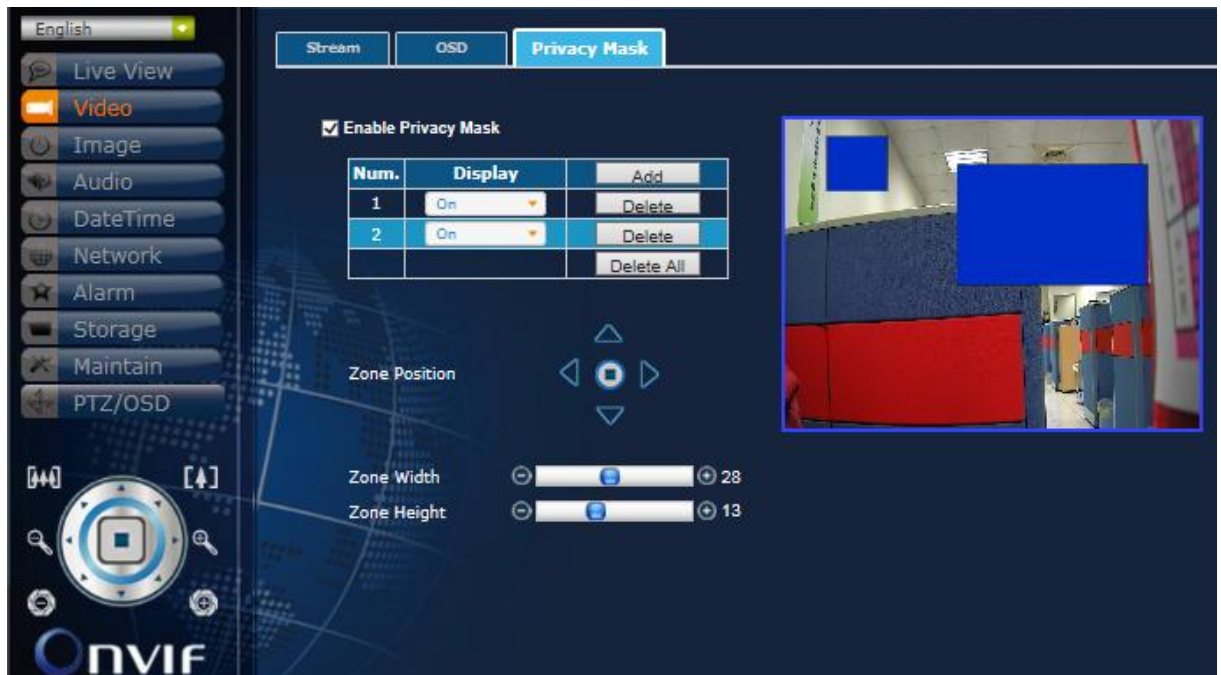
Privacy Mask
1. Check the box on the top of the setting page to enable Privacy Mask;
2. Press Add button to add the blue rectangle; (max 16) and enable the display accordingly;
3. Adjust the Zone Position of the selected Mask by using the direction keys;
4. Adjust the Zone Width and Height of the selected Mask;

3. Image

Modify the settings of image, including Basic, Back Light Lens, Exposure, Day/Night, ROI and Advanced settings.
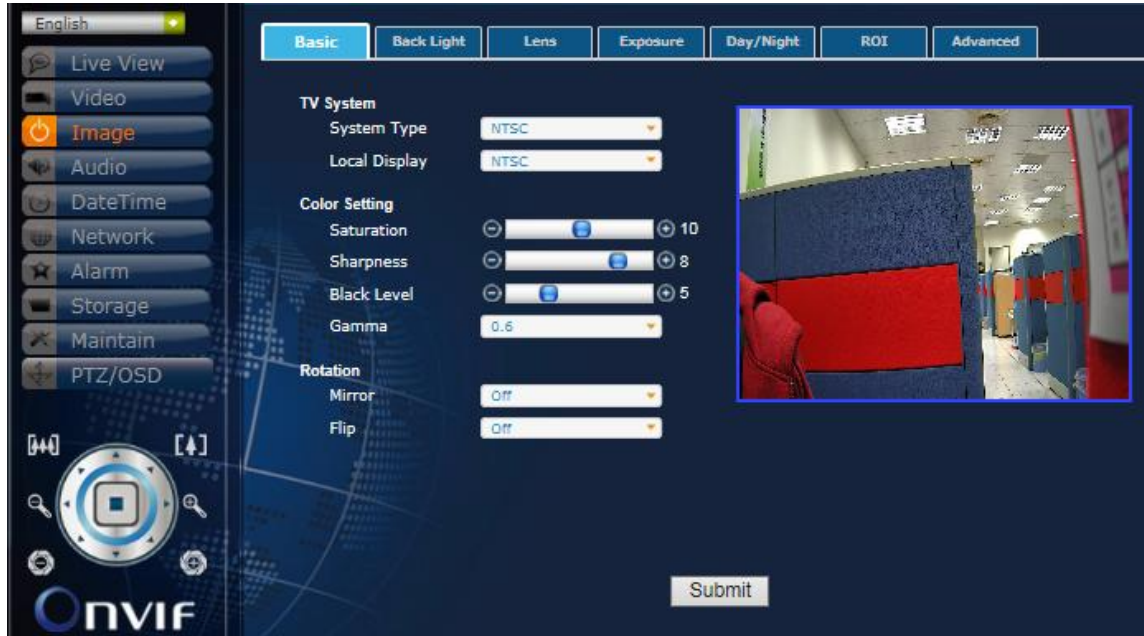
Basic
TV System

System Type	NTSC, PAL
Local Display	NTSC, PAL, Off

Color Setting

Saturation	0~20
Sharpness	0~10
Black Level	0~20
Gamma	0.45, 0.5, 0.55, 0.6, 0.65

Rotation

Mirror	On, Off
Flip	On, Off
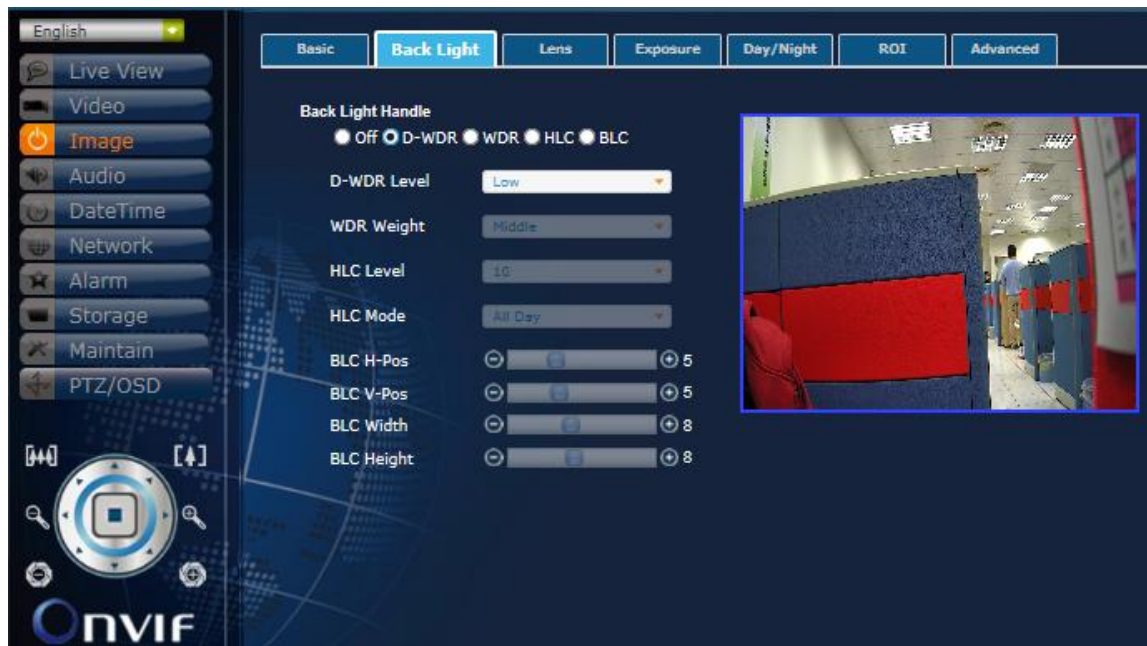
Back Light
Select the Back Light mode first on the top and then adjust the settings from the drop down list accordingly.

Off

Disable Back Light Handle function

D-WDR

D-WDR Level	Off, Low, Middle, High

WDR

WDR Weight	Low, Middle, High

HLC

HLC Level	0~20
HLC Mode	All Day, Night Only

BLC

BLC H-Pos	0~17
BLC V-Pos	0~16
BLC Width	1~18
BLC Height	1~17
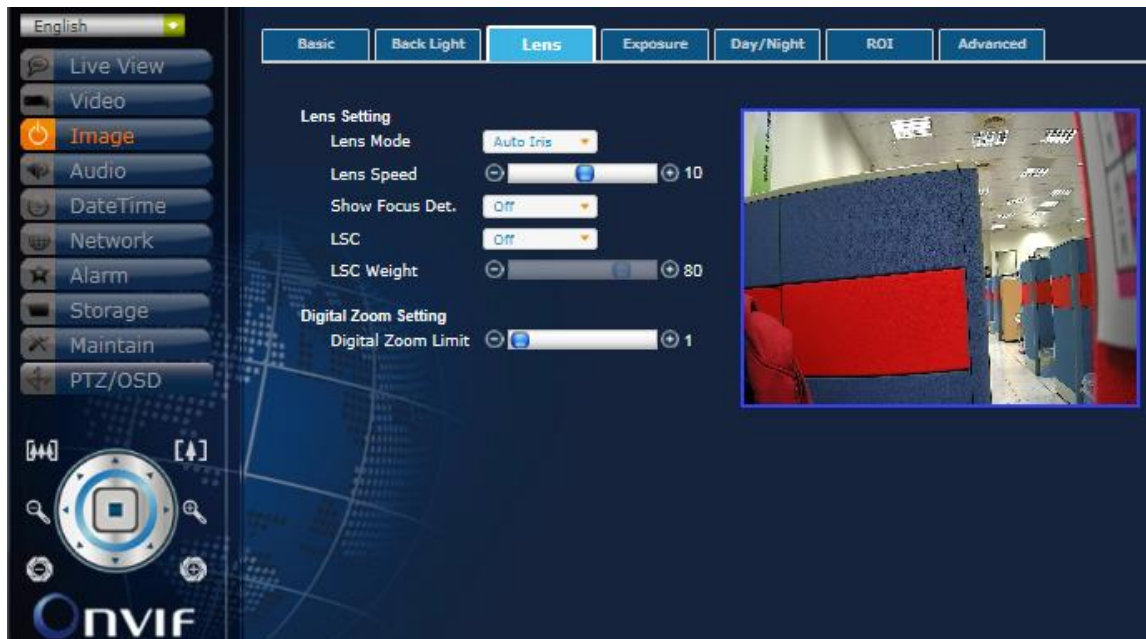
Lens
Lens Setting

Lens Mode	Auto Iris, Manual
Lens Speed	0~20 (Auto Iris Lens Mode)
Show Focus Det.	On, Off
LSC	On, Off
LSC Weight	0~100 (LSC On)

Digital Zoom Setting

Digital Zoom	1~8X
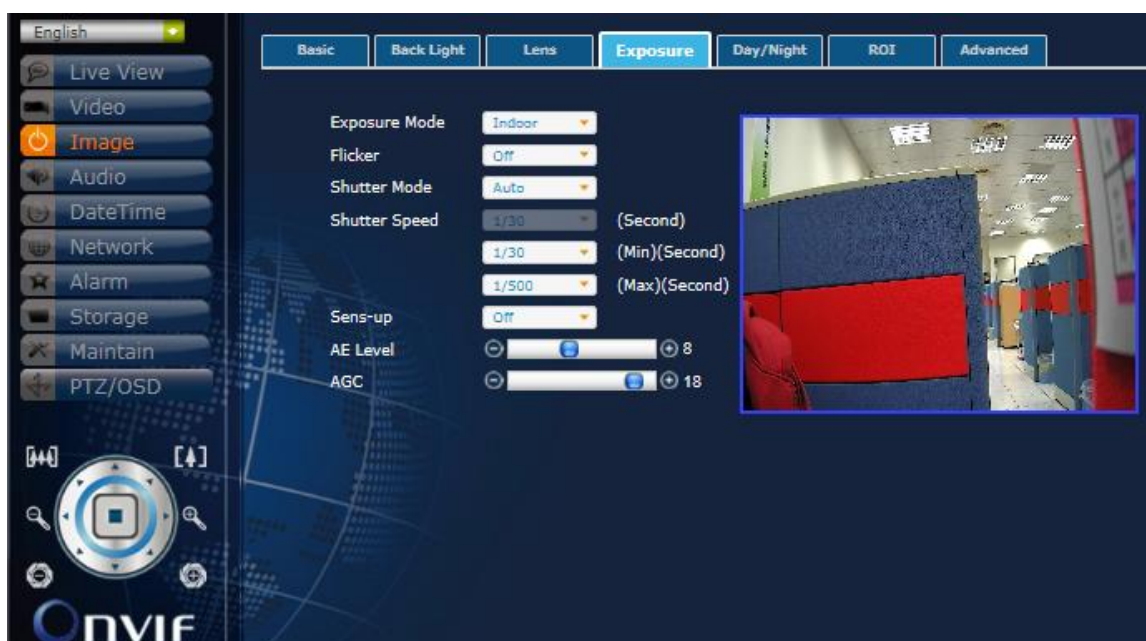
Exposure

Exposure Mode	Indoor, Outdoor
Flicker	On, Off
Shutter Mode	Auto, Manual
Shutter Speed	Manual Shutter: 1/30, 1/60, 1/120, 1/240, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000, 1/30000 (Second) (NTSC); 1/25, 1/50, 1/100, 1/240, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000, 1/30000 (Second) (PAL)
	Auto Shutter (Min): 1/30, 1/60, 1/120, 1/240, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000 (Second) (NTSC); 1/25, 1/50, 1/100, 1/240, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000, 1/30000 (Second) (PAL)
	Auto Shutter (Max): 1/60, 1/120, 1/240, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000, 1/30000 (Second) (NTSC); 1/50, 1/100, 1/240, 1/500, 1/1000, 1/2000, 1/4000, 1/8000, 1/16000, 1/30000 (Second) (PAL)
Sens-up	Off, x2, x4, x8, x16, x32
AE Level	0~20
AGC	0~20
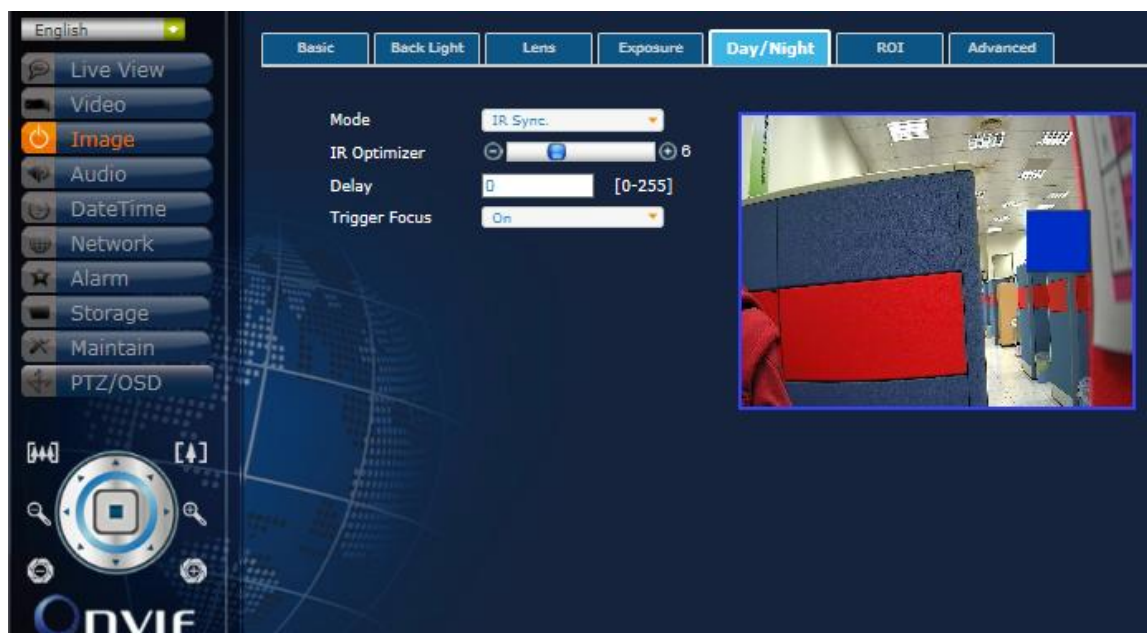
Day/Night (Models w/ IR)

Mode	IR Sync., Color, Black/White
IR Optimizer	0~20 (Disabled under Color Mode)
Delay	0~255 (Disabled under Color & Black/White Mode)
Trigger Focus	On, Off

Day/Night (Models w/o IR)

Mode	Color, Black/White, Auto, External
IR Optimizer	0~20
AGC Thres	0~20 (Auto Mode)
AGC Margin	0~20 (Auto Mode)
Night Output	Low, High
Delay	Low, Middle, High
Night Input	Low, High (External Mode)
Trigger Focus	On, Off
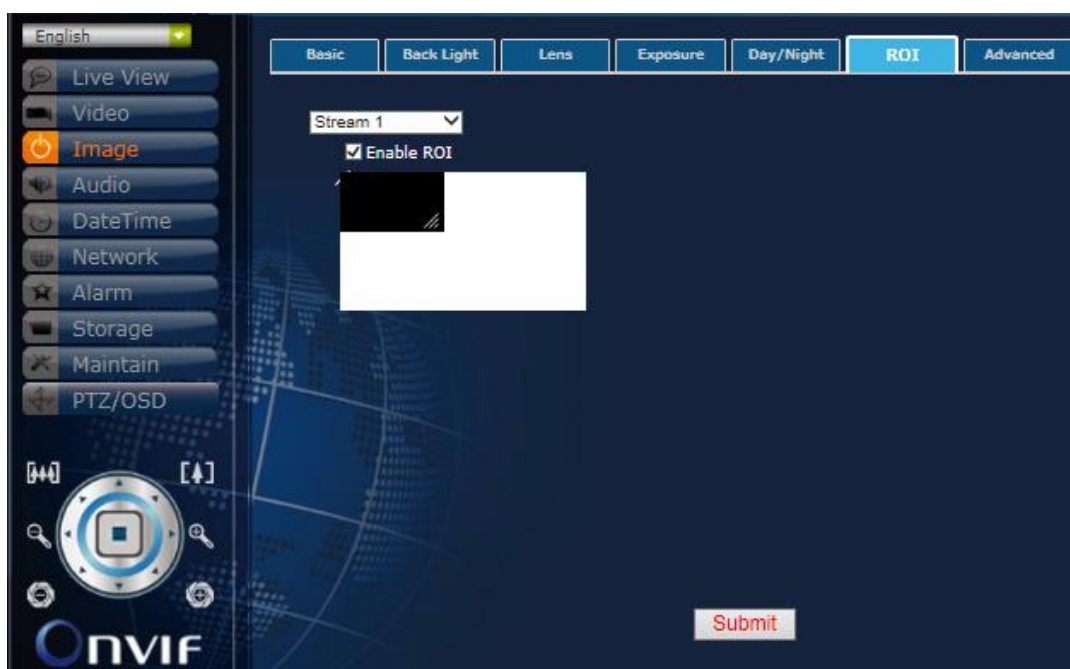
ROI

1. Select the Stream 1 or Stream 2;
2. Check the box to Enable ROI;
3. Adjust the size and position of the ROI.
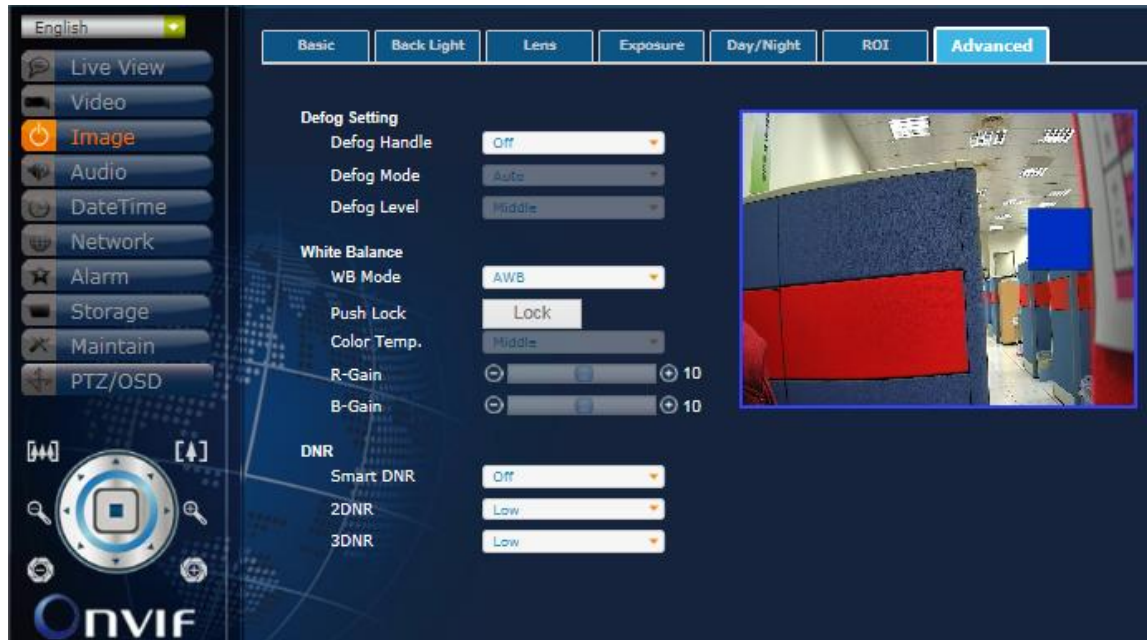
Advanced

Defog Setting

Defog Handle	On, Off
Defog Mode	Auto, Manual (Defog Handle On)
Defog Level	Low, Middle, High (Defog Handle On)

White Balance

WB Mode	AWB, ATW, Push Lock, Manual
Push Lock	Lock (Push Lock Mode and press the button)
Color Temp.	Low, Middle, High (Manual Mode)
R-Gain	0~20 (Manual Mode)
B-Gain	0~20 (Manual Mode)

DNR

Smart DNR	On, Off
2DNR	Off, Low, Middle, High
3DNR	Off, Low, Middle, High

4. Audio

Modify the settings of audio.

Audio

Enable Audio	Check the box to enable
Audio Mode	MIC, Speaker, Both

Audio Input

Sample Rate	8Khz/64Kbps, 16Khz/128Kbps
Input Volume	0~100

Audio Output

Output Volume	0~100

5. DateTime
Modify the settings of date and time.

Date/Time
Date/Time Setting

Current Time	Display the current time after submitting all the settings
Date Format	DD/MM/YYYY, YYYY/MM/DD, MM/DD/YYYY
Time Format	12Hrs, 24Hrs
TimeZone	GMT-12~GMT+12

Date/Time Sync.

Set Manual	Select Date and Time from the calendar and list accordingly
Sync Current PC	Synchronize with the Date and Time from the Current PC
Sync With SNTP Server	Enter SNTP Server address
	Select UpdateTime: 1Min, 5Min, 10Min, 1Hour, 12Hour, 24Hour

6. Network

Modify the settings of network and IP address including Connection, DDNS, SMTP, FTP and Advanced.

Network
Connection

Use DHCP	Click to use DHCP
Static IP	Click to enter IP Address, Mask, Gateway, DNS
PPPoE	Click to enter Account and Password
Http Port	Set Http Port number

DDNS

Enable DDNS	Check to Enable DDNS and fill up all the necessary items accordingly

SMTP

SmtpAuth	Check to enable SMTP Authentication and fill up all the necessary items accordingly

FTP

Enter all the necessary info for FTP settings accordingly

Advanced
RTSP Port Setting

H264 Main Stream	Enter the corresponding number
H264 Sub Stream	Enter the corresponding number
MPEG4 Main Stream	Enter the corresponding number

MPEG4 Sub Stream	Enter the corresponding number
MJPEG Stream	Enter the corresponding number
RTSP Over HTTP	Enter the corresponding number
RTSP Over TCP	Enter the corresponding number
Multicast	Check to enable Multicast

SNMP Setting

SNMP Server	Enter the corresponding address

ONVIF Setting

Server Port	Default 8080 (Using Onvif must sync PC time)

7. Alarm
Modify the settings of alarm trigger and actions including Alarm Setting and Motion Detection.
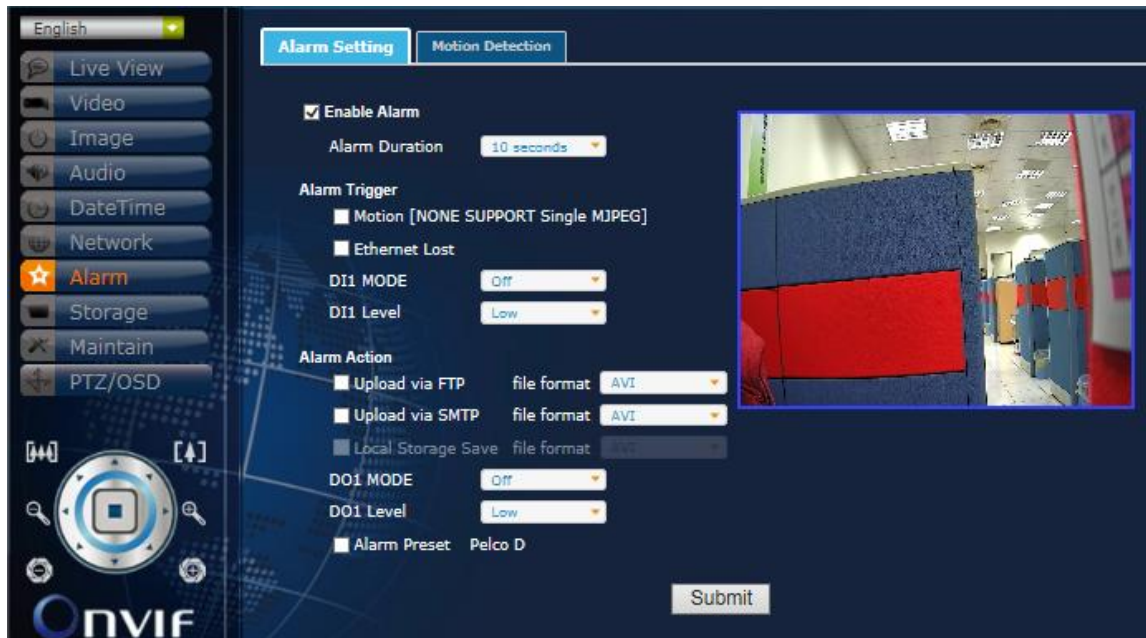
Alarm Setting

Enable Alarm	Check to Enable Alarm
Alarm Duration	10, 30 seconds; 1, 5, 10 minutes; Non-Stop

Alarm Trigger

Motion [NONE SUPPORT Single MJPEG]	Check to enable Motion
Ethernet Lost	Check to enable Ethernet Lost
DI1 MODE	On, Off
DI1 Level	Low, High

Alarm Action

Upload via FTP	Check to enable this action and select file format
Upload via SMTP	Check to enable this action and select file format
Local Storage Save	Check to enable this action and select file format
DO1 MODE	On, Off
DO1 Level	Low, High
Alarm Preset	Check to enable this action with Pelco D protocol
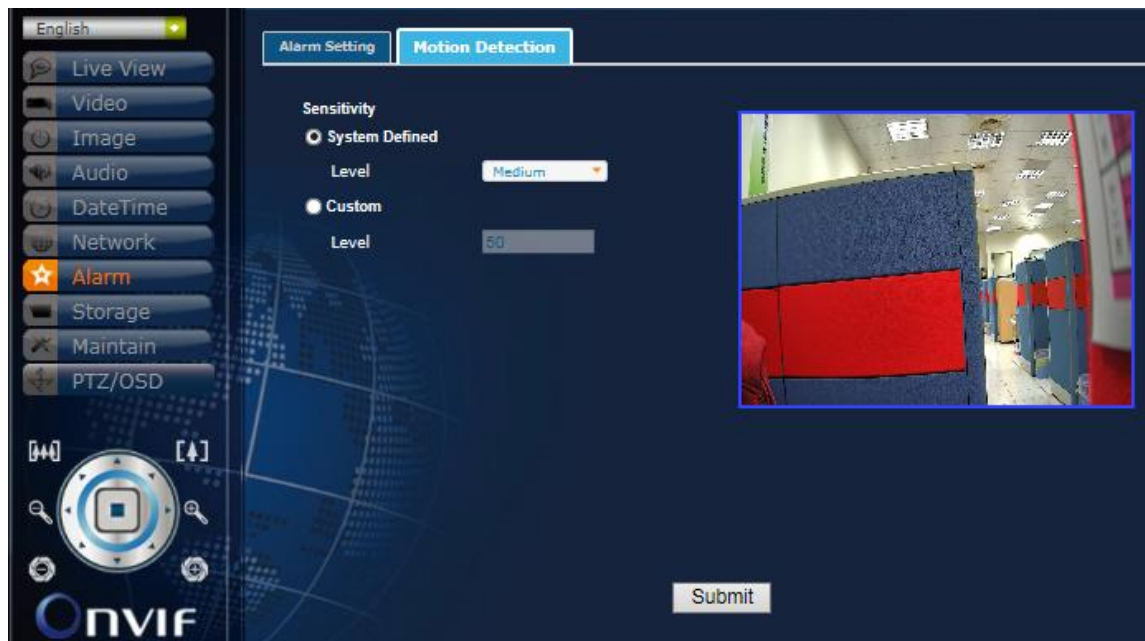
Motion Detection
Sensitivity

System Defined	Click to select System Defined Sensitivity
Level	Low, Medium, High
Custom	Click to select Custom Sensitivity
Level	Default 50

8. Storage
Modify the settings of storage and files upload including Device, Recording, and Schedule.

Device

SD Card	Detect if there is any SD card mounted
Usage	Used space of the SD card
Free	Available space of the SD card
SD Card Format	Press the button to format the SD card

Upload via FTP	Check to enable Upload via FTP and select the file format
Local Storage Save	Check to enable Local Storage Save and select the file format

Recording

Format	H.264, MPEG4 (Vary with Video Resolution settings)
Size	5, 10 sec; Auto (Enabled after inserting SD card)

File path

Select the File path to save the recording file

Schedule

Set the storage schedule time of a week by selecting weekdays and pulling down the time bar

9. Maintain
Maintain the System, User Setting, and System Log accordingly.

System
System Info.

Mac Address	Display the Mac Address of the camera

Firmware Version

Current Version	Display the current firmware version of the camera
2A Version	Display the 2A version of the camera
Firmware Update	Select the file path and press the Update button to proceed

Operation

IPCAM Restart	Press the Restart button to reboot the camera

Configuration

Import File	Select the file path and press the Import button
Export File	Export the current configuration of the camera
Factory Default	Press the Restore button to reset all the settings to the defaults

Advance Config

OSD Overlayer
Please check "Enable OSD overlayer in stream 1". Select "Input Text", you can type the text you want in the blank area and move the black rectangle in the right to decide the position where you want to put the text. It supports for multi-language.
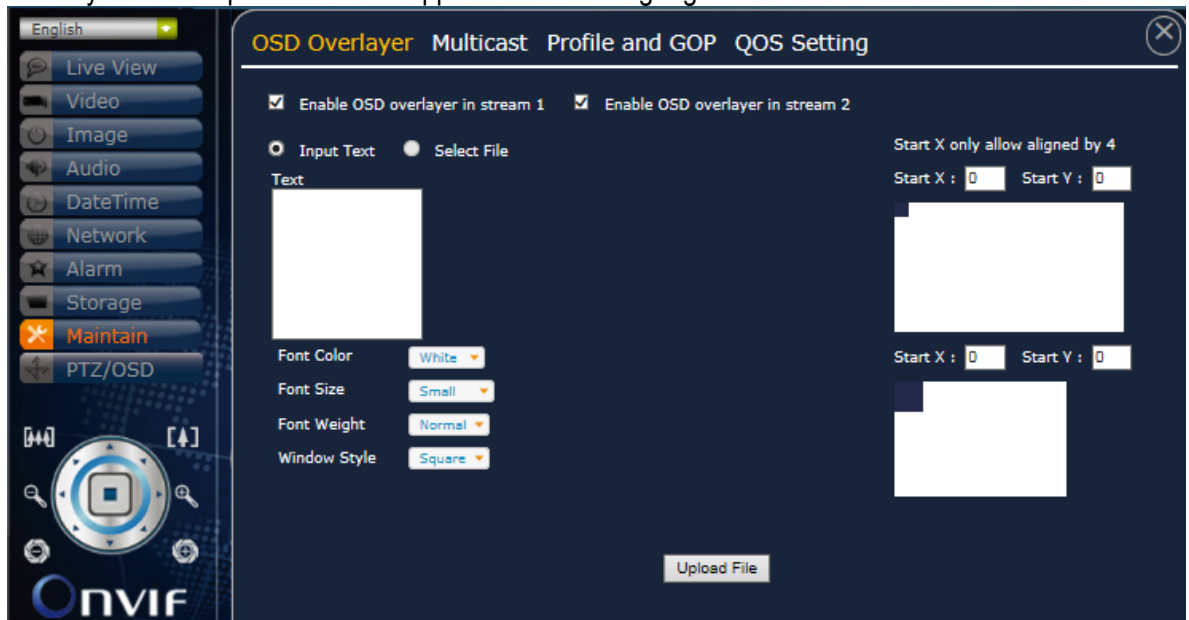
Multicast
Please input your Multicast IP Address. You can make group communication with Layer2 switch hub through this function.

Profile and GOP(Group of Pictures)
Click "Profile and GOP", you can select "Profile Type", "Profile Level" and "GOP" of the Stream.
Select "Profile Type" to Base, Main or High, which means the stream compression quality.

Select "Profile Level" accordingly.

Select "GOP" from 1~4. For example, "1" means every 29 P frame to send an I frame. If your internet connection is not that stable, we suggest just setting GOP as "1".

QOS(Quality of Service) Setting

There are four options for QOS mode: Disable, Video Only, Audio Only and Both. And you can drag the bar to set the QOS priority. The number represents an ID of device. Once you enable the QOS mode, the packet priority will be arranged by the ID number you set.

Download JAVA CA

To avoid the JAVA security warning, please click "**Download JAVA CA**", a compressed file "IPC_CA_Importer.zip" will be downloaded. Unzip it you will find a folder "ImportCA". Into the folder, double click "importCA_0122.exe", and then follow the steps below.

IP Camera CA Certificate Tool

1. Implement CA certificate
(1). Run the IP Camera CA certificate Tool and please make sure that JVE was updated to version 7.01. Press any key for continuing this process or press Ctrl+C to quit this process.
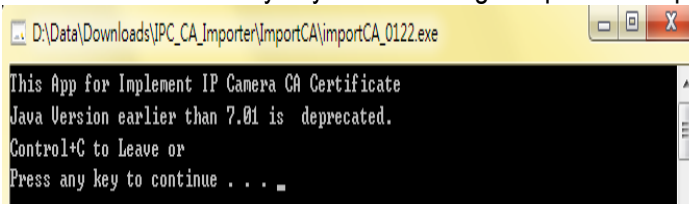
(2). Press "1" and then press enter to run the CA certificate process.
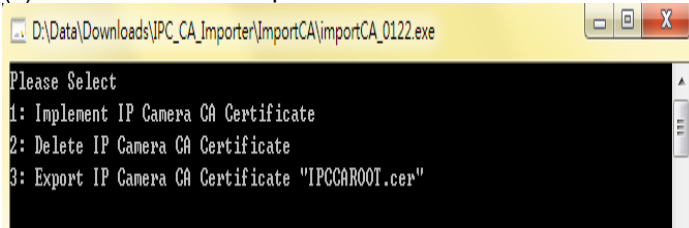
(3). Wait until the process runs to 100%.
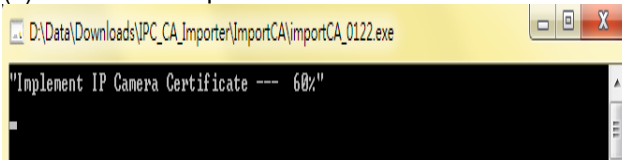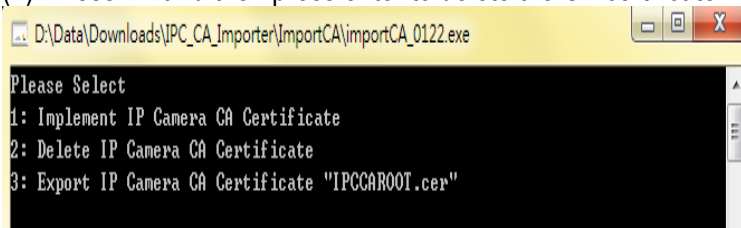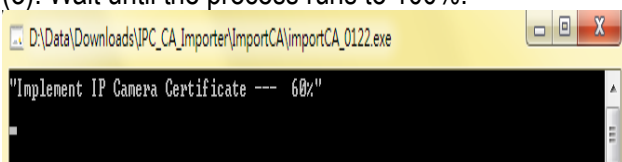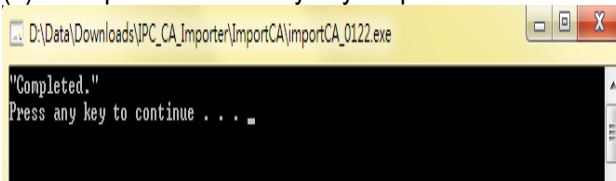

(4). Completed! Press any key to quit.
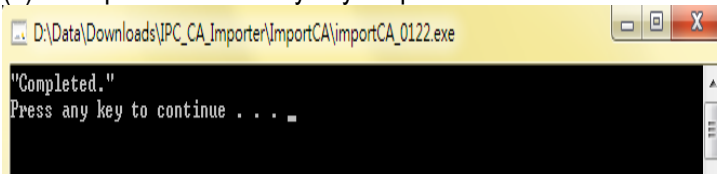
2. Delete the CA certificate
(1). Run the IP Camera CA certificate Tool and please make sure that JVE was updated to version 7.01. Press any key for continuing this process or press Ctrl+C to quit this process.

(2). Press "2" and then press enter to delete the CA certificate.
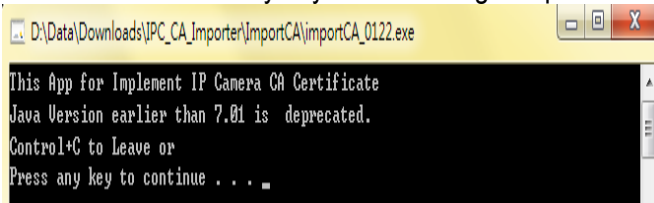

(3). Wait until the process runs to 100%.
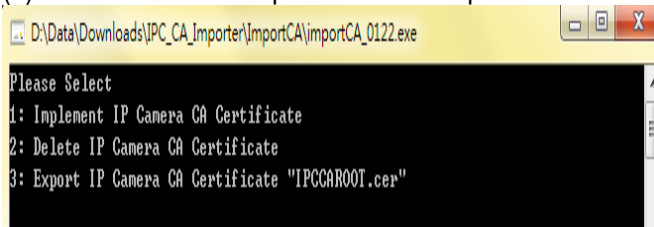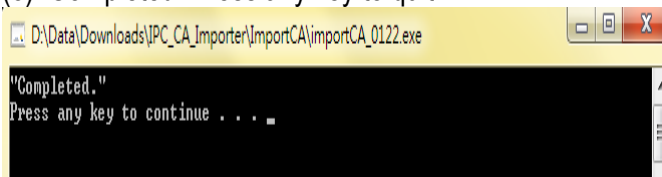
(4). Completed! Press any key to quit.

```
D:\Data\Downloads\IPC_CA_Importer\ImportCA\importCA_0122.exe

"Completed."
Press any key to continue . . . _
```

3. Export the CA certificate
(1). Run the IP Camera CA certificate Tool and please make sure that JVE was updated to version 7.01. Press any key for continuing this process or press Ctrl+C to quit this process.

```
D:\Data\Downloads\IPC_CA_Importer\ImportCA\importCA_0122.exe

This App for Implement IP Camera CA Certificate
Java Version earlier than 7.01 is  deprecated.
Control+C to Leave or
Press any key to continue . . . _
```

(2). Press "3" and then press enter to export the CA certificate.

```
D:\Data\Downloads\IPC_CA_Importer\ImportCA\importCA_0122.exe

Please Select
1: Implement IP Camera CA Certificate
2: Delete IP Camera CA Certificate
3: Export IP Camera CA Certificate "IPCCAROOT.cer"
```

(3). Completed. Press any key to quit.

```
D:\Data\Downloads\IPC_CA_Importer\ImportCA\importCA_0122.exe

"Completed."
Press any key to continue . . . _
```

User Setting

User Name / Password	Change the login User Name and Password
Authority	Change the authority level of users
User List	User list of this IP camera
Add / Del User	Add / Delete the user
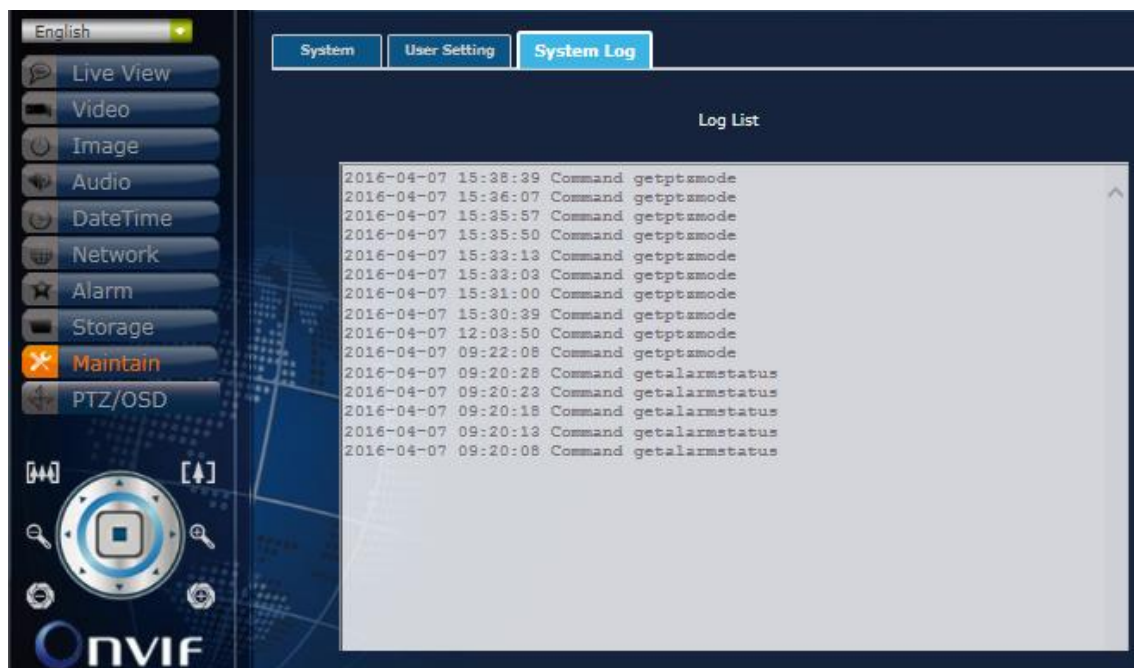
System Log

Log List	Login list of this IP camera

10. PTZ/OSD

PTZ Operation, PTZ Setting, Smart Zoom, and Customize Setting can be configured accordingly.

PTZ Operation

	Adding Preset, Tour Recording, Home Returning, relevant functions shall be supported and usable for Speed Dome or Motorized Lens models here. No function buttons will be shown or enabled if the camera does not have/support them.
	On/Off buttons to Show/Exit OSD MENU; Using the 4 direction and Enter keys to access and adjust all the items accordingly.

PTZ Setting

Device ID	0~255 selectable
Baud Rate	2400, 4800, 9600, 57600, 115200 selectable
Protocol	Customize, Pelco D, Pelco P
	Adjust the speed of Zoom in/out
	Adjust the speed of the camera's Pan (Right-Left) movement
	Adjust the speed of the camera's Tilt (Up-Down) movement
PTZ Control Panel	Check the box to enable OSD Menu Operation by the Panel

Customize Setting

■		Stop
△	▽	Up / Down
◁	▷	Left / Right
🔍+	🔍-	Zoom in / Zoom out
🔍	🔍+	Wide / Tele
SET 01		SET: Create and define commands