



AVer IP Camera

User Manual

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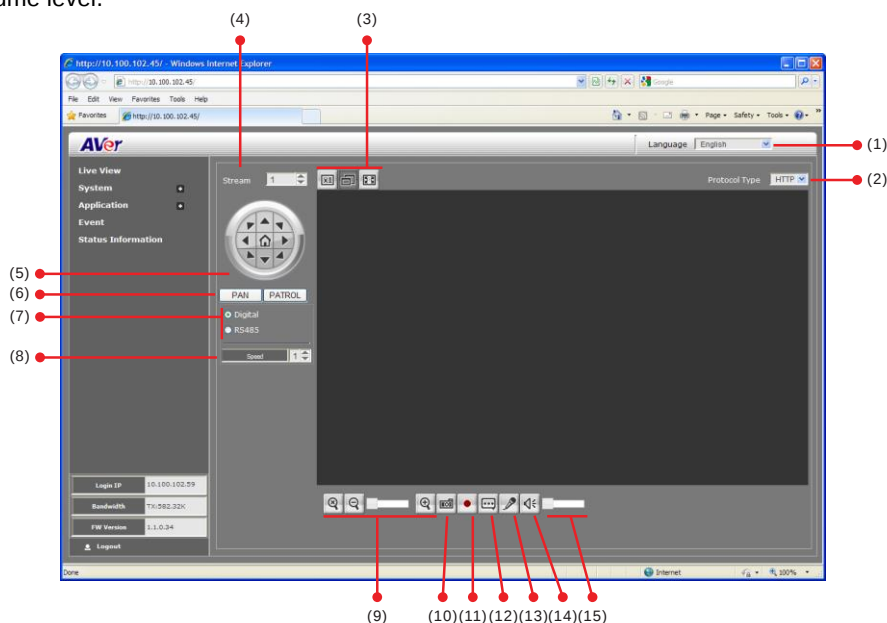
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Using the IP Camera Browser Interface

The admin have the full access to the IP camera browser interface. The menu on the left, you can expand and navigate to access all the features.

Live View

In the Live View page, all three user levels can view and change the language setting, the IP camera video stream setting, use the digital or RS-485 Pan and Patrol control, capture screen shot, record video, turn on/off 2-way talk, mic and volume, and adjust the zoom and volume level.



Name	Function
(1) Language	Select the browser interface language.
(2) Protocol Type	Select the protocol for the live view video stream.
(3) Video screen	Change the video screen display.  Display the actual video pixel size.  Display the video screen in compact size.  Display the video on the entire screen. Press ESC to exit full screen mode.
(4) Stream	Switch to view the video stream type. The IP camera can send multiple video streams of up to 3 types. To change the video stream setting, go to System > Video Stream.

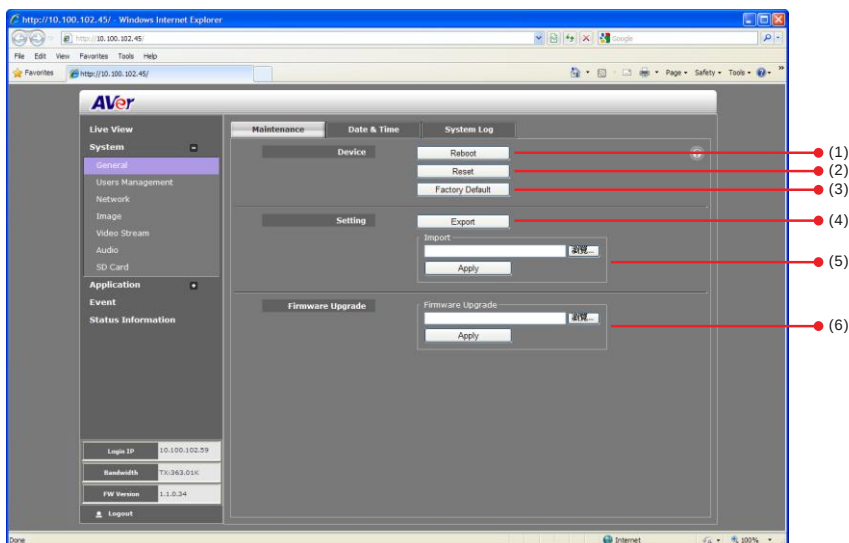
Name	Function
(5) Direction buttons	- Use to move the position of the view point while in zoom mode. - Use to control the position of the RS-485 pan tilt device
(6) Pan & Patrol button	<u>Pan</u> - automatically move the view point from left to right when in zoom in mode. <u>Patrol</u> - automatically move the view point around the preset locations in Application > Patrol.
(7) Digital /RS-485	- Select Digital to control the IP camera ePTZ operation. This allows you to closely view the target area without having to physically move the IP camera. The image will be zoomed in and you can use the direction control to pan the zoomed image. - Select RS-485 to control the PTZ driver or scanner via RS-485 connection to I/O terminal block. The IP camera is mounted on an RS-485 pan tilt device.
(8) Speed control	Set the speed when panning, tilting, or zooming.
(9) Zoom control	 Reset zoom level.  Increase zoom level.  Decrease zoom level.
(10) Capture	 Capture and save the image on the screen in *.bmp format.
(11) Record	 Start/stop audio and video recording. The recorded video will be saved in *.mp4 format.
(12) 2-way talk	 Enable/disable mic from IP camera browser side.
(13) Mic	 Enable/disable mic from the IP camera side.
(14) Sound	 Enable/disable audio from the IP camera side.
(15) Volume bar	Adjust the volume.

System > General

In this section, only admin level is authorized to configure the IP camera general settings. There are 3 tabs in General settings: Maintenance, Date & Time, and System Log. You can view the significant occurrence in the IP camera such as

System > General > Maintenance

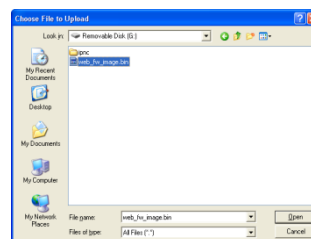
In the Maintenance tab, the admin can easily backup and restore the IP camera setting, reboot the IP camera, reset all the settings to factory default, and upgrade the IP camera firmware.



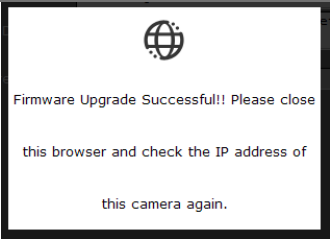
Name	Function
(1) Reboot	Restart the IP camera.
(2) Reset	Set all the configuration settings back to default except the user management and network settings.
(3) Factory Default	Set all the configuration settings back to factory default.
(4) Export Settings	Backup all the configuration settings.
(5) Import Settings	Restore or replace the current settings with the backup file.
(6) Firmware Upgrade	Upgrade the firmware to the latest version.

To Upgrade the IP Camera Firmware

1. Download the file from our website and save it in your computer hard disk.
2. Click Browse. Locate and select the file and click Open.

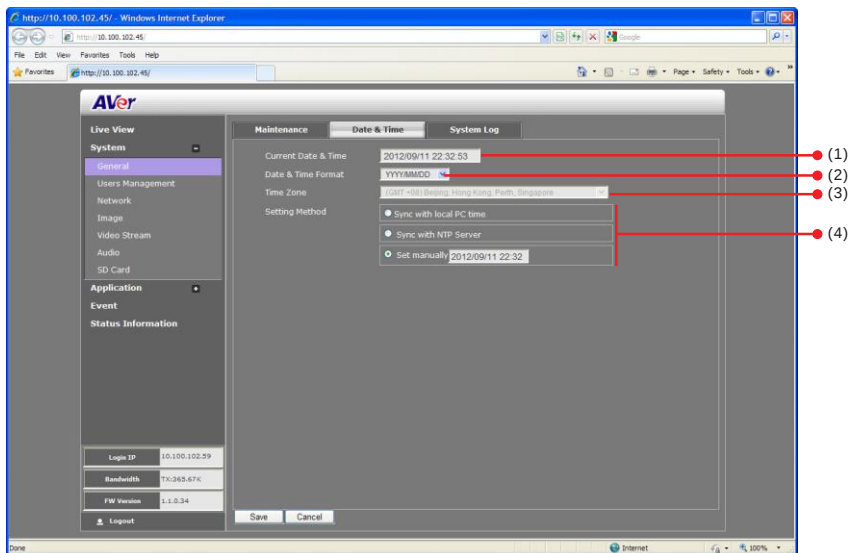


3. Click Apply. Wait till you see the message "Firmware Upgrade OK!!". You may now click the IE browser refresh button or press F5. The login page will appear.

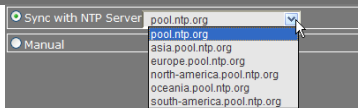
Name	Function
	

System > General > Date & Time

In the Date & Time tab, admin can manually set the date and time setting or synchronize it with the Internet time server or the computer date and time setting. This is used to record the time whenever there is a significant occurrence listed in system log and is also used in event scheduling. After completing the setting, click Save to apply the new setting and Cancel to keep the old setting.



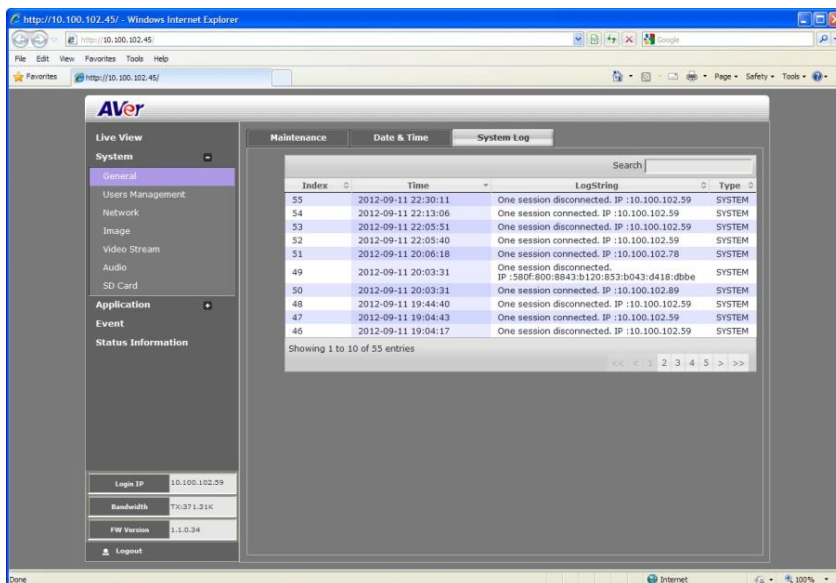
Name	Function
(1) Current Date & Time	Display the current date and time setting.
(2) Date Format	Select the date display format.
(3) Time Zone	Set the local time zone.
(4) Setting Method	Select the date & time setting method. <u>Sync with current PC</u> – obtain the date and time setting on the current login computer. <u>Sync with NTP Server</u> – obtain the date and time setting from NTP server. In the drop-down list, select the NTP host name.

Name**Function**

Manual – manually set the date and time. Click **Now** to set the date base on the computer time setting and **Done** to close the date and time interface.

System > General > System Log

In the System Log, admin can view and search the significant event occurred in the IP camera.



System > User Management

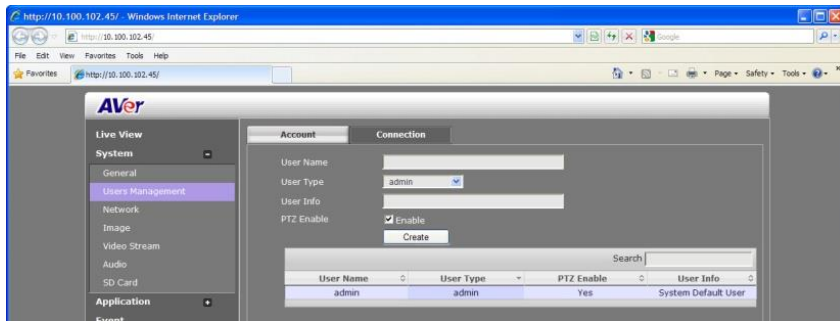
In User Management, only admin level is authorized to create, delete, and edit account to connect to the IP camera and configure the client connection setting. There are 2 tabs in User Management setting: Account and Connection.

System > User Management > Account

In Account tab, admin can create, delete and set the access level of the user account.

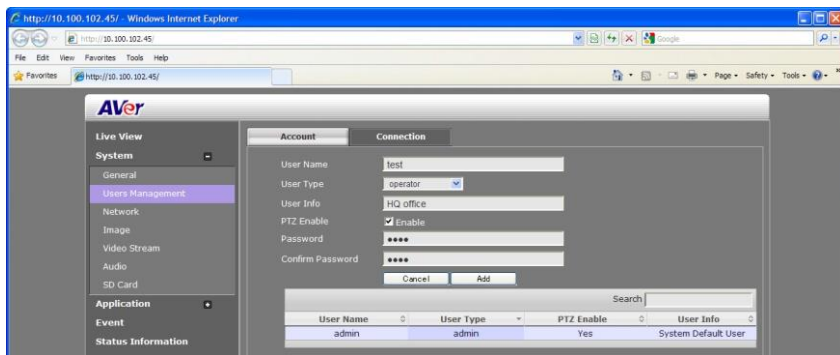
To Create a User Account

1. Click System > User Management > Account tab.
2. Enter the User Name, select the User Type, enter the User Info and click Create.



User Type	Access rights
Admin	Can access all the configuration pages
Operator	Can preview live image, modify and adjust certain settings except in System > General, User Management, and Network; and SD/microSD Card > Management. As for the I/O Control, admin could enable/disable allowing operator to access it.
Viewer	Can only access the preview and status information pages.

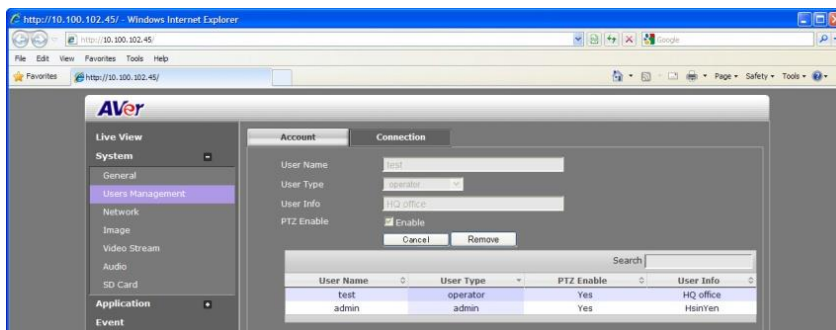
- Enter the same password in Password and Confirm Password text box. Then click Add.



To Delete or Edit a User Account

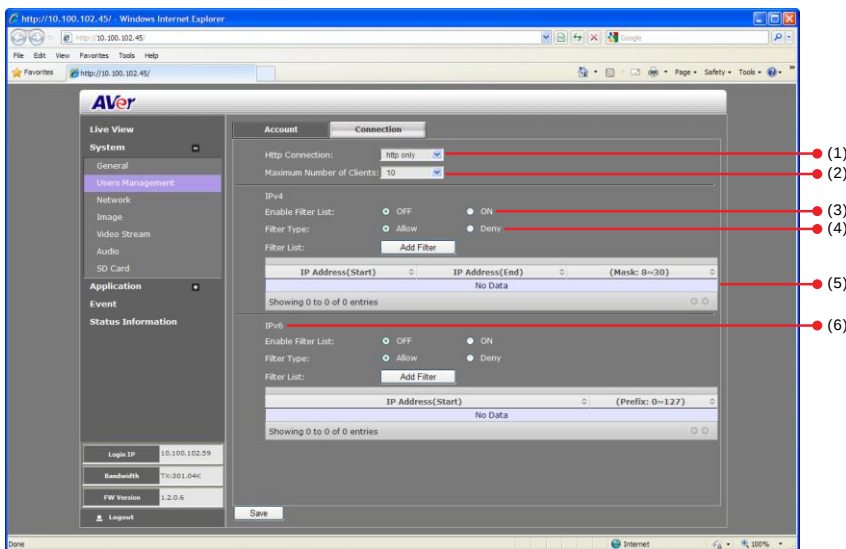
Select the user account you want to delete or edit in User Management > Account tab.

- Click **Cancel** to void the operation.
- Click **Modify** to apply the new changes. Make sure to edit the account before clicking the Modify button.
- Click **Remove** to delete the account.



System > User Management > Connection

In Connection tab, admin can set the total number of user to access the IP camera, and filter the IP address to allow or deny accessing the IP camera.



Name	Function
(1) Http Connection	Select the connection type. For higher security data transmission level, select http & https or http only. This authenticate and encrypted the data over the SSL(Secure Socket Layer).
(2) Maximum Number of Clients	Select the max number of user to simultaneously access the IP camera.
(3) Enable Filter List	Select to turn the IP address filtering on/off.
(4) Filter Type	Select to allow/deny the IP address in the filter list to access the IP camera.
(5) Filter List	Create and display the filtered IP address.

Name	Function
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To Add Filter

1. Click Add Filter in User Management > Connection tab.
2. In Rule drop down list, select from the 3 types of rules: Single, Network and Range.

Single – add an IP address

Network – assign a network address and the corresponding subnet mask to be filtered.

Range – assign a range of IP address to be filtered.

3. Save to add the created data in the filter list or Cancel to void the operation and exit.

(6) IPv6 Filter

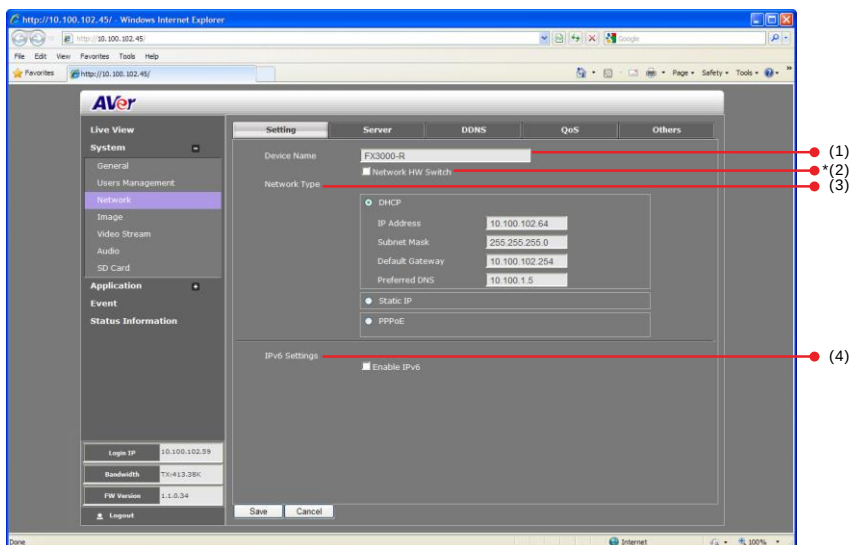
Please follow the IPv4 filter rules to set up IPv6 filter.

System > Network

In this section, only admin level is authorized to set up the Network settings.

System > Network > Setting

In Setting tab, you can configure the type of network connection for IP camera and assign name for the IP camera. Depending on the network connection, IP camera can be accessed from the computer within the same local area network (LAN) or anywhere with Internet connection. After completing the setting, click Save to apply the new setting and Cancel to keep the old setting.



Name	Function
(1) Device Name	Assign name for the IP camera.
(2) Network HW Switch	Enable/disable to use the IP camera dip switch network setting. If this is enabled, make sure the dip switch behind the IP camera is set properly. * (Available for FX series and SF2121H-R Box type only)
(3) Network Type	Select the type of IP camera Network connection. DHCP – select this option to automatically obtain an IP address from the DHCP server, whenever the IP camera is connected to the network. You can use the IP camera UPnP Discovery software in the CD to easily setup the IP camera network. Static IP – select this option to manually assign a fix IP address to the IP camera. PPPoE – select this option to access the IP camera anywhere with Internet connection. To use this option, this requires an account provided by the ISP. Set this setting while connected to the LAN and click save. Connect the IP camera directly to DSL or cable modem.

Name	Function
☒ PPPoE User ID Password	

(4) IPv6 Settings

Enable IPv6 support

IPv6 Settings

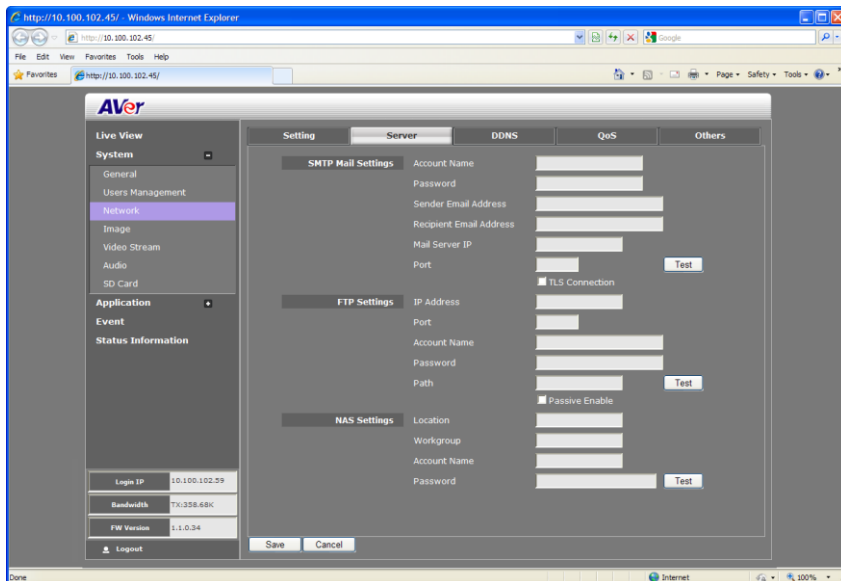
☒ Enable IPv6
☐ Manually set the IP address

IP Address
 Prefix Length
 Gateway
 Primary DNS

Select "Manually set the IP address" to specify IP address manually.

System > Network > Server

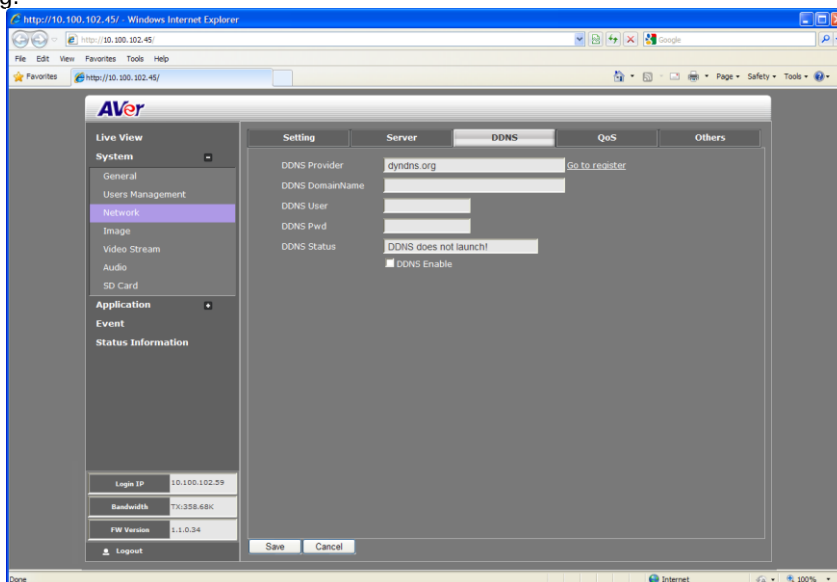
In Server tab, you can configure the Email, FTP, and NAS setting. It is necessary to configure the server settings so that IP camera can perform the task in the Event setting when a trigger is activated. You can configure either one or all of it. After completing the setting, click Save to apply the new setting and Cancel to keep the old setting.



System > Network > DDNS

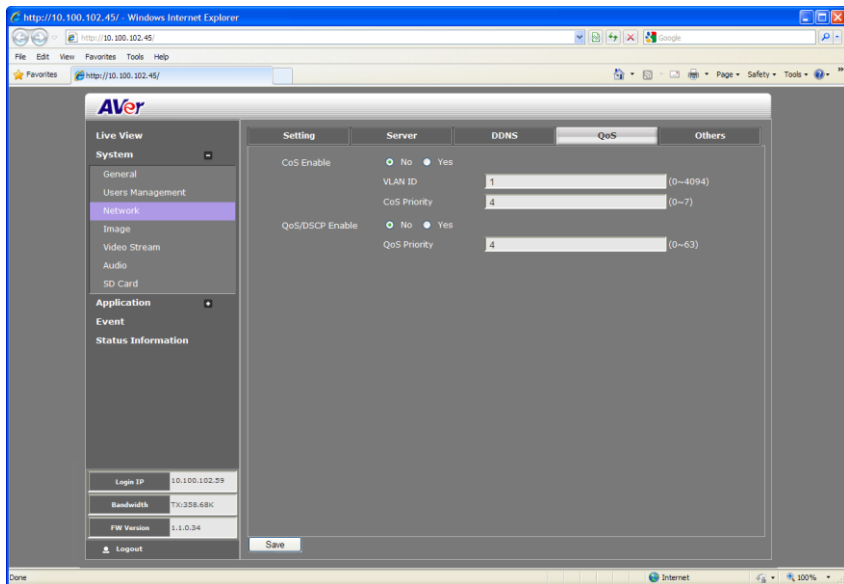
In DDNS tab, you can configure the dynamic domain name service setting. DDNS is a service that provides fixed host and domain name for the IP camera with dynamic IP address. It automatically updates the new IP address to the dynamic server of the domain name.

To use this feature, you need to register a domain name at <http://dyn.com/dns/> . Enter the DDNS domain name, user, password and enable DDNS enable check box. After completing the setting, click Save to apply the new setting and Cancel to keep the old setting.



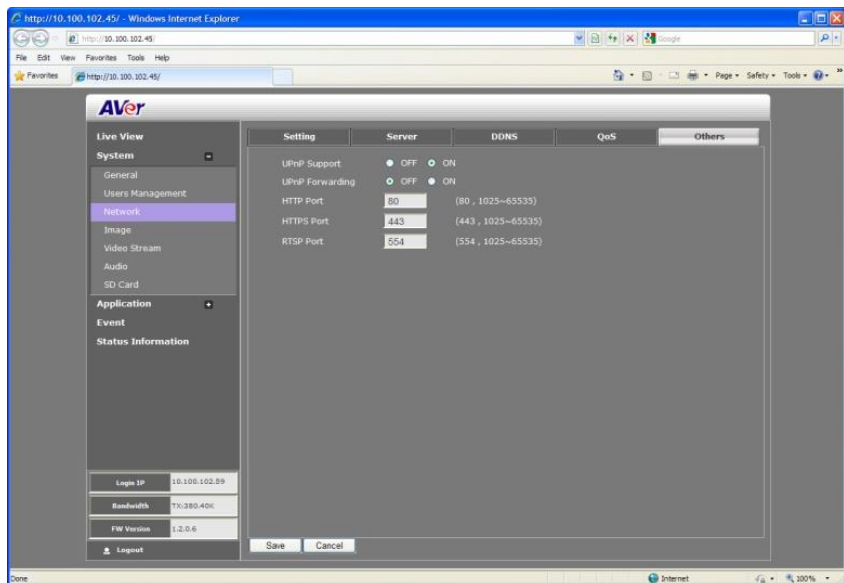
System > Network > QoS

In QoS tab, you can configure the Quality of Service setting. Enabling the QoS allows you to set the parameter and prioritize the IP camera to provide stable streaming performance at a certain level in a traffic network.



System > Network > Others

In Others tab, you can configure the enable/disable the UPnP setting. If your router does not support UPnP function, you can enable the UPnP forwarding and set the port mapping.

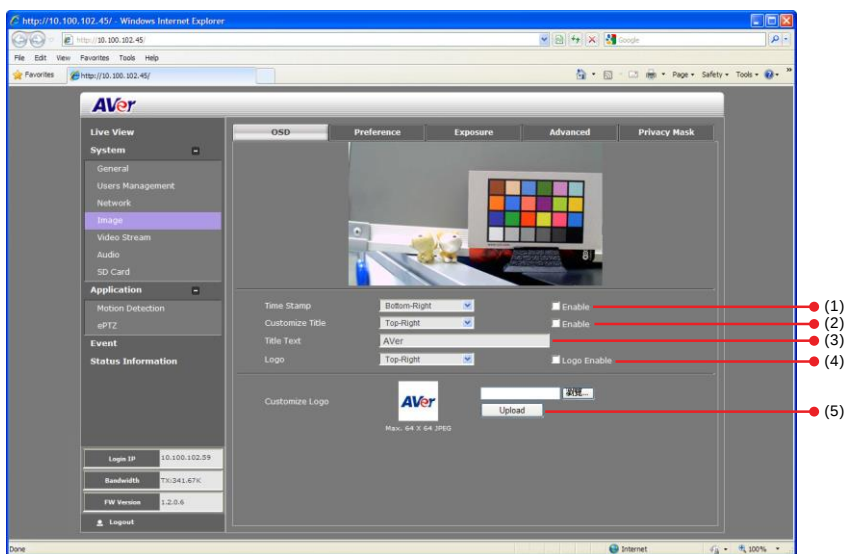


System > Image

Both admin and operator levels can adjust the Image setting. There are 5 tabs: OSD, Preference, Exposure, Advanced, and Privacy Mask.

System > Image > OSD

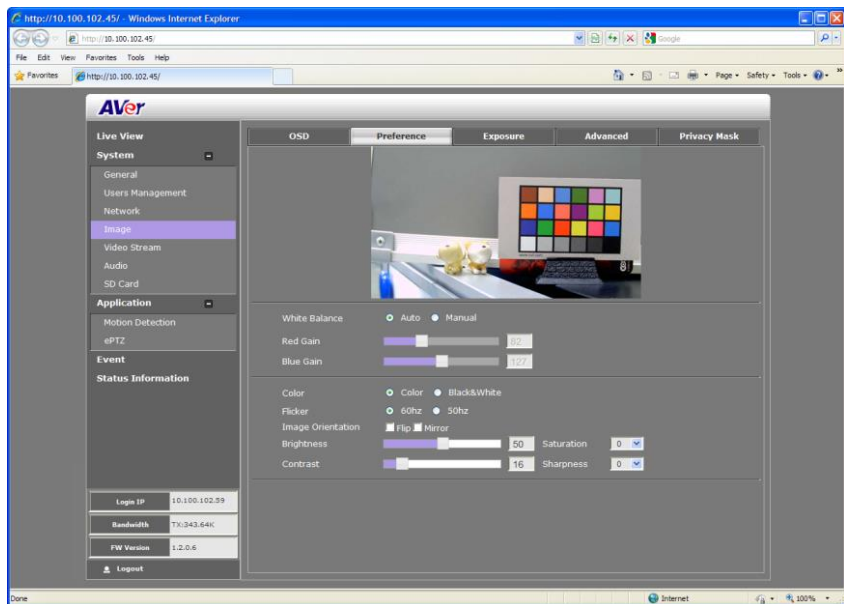
In OSD tab, you can enable/disable overlaying time stamp, text title and add logo. After completing the setting, click Save to apply the new setting and Cancel to keep the old setting.



Name	Function
(1) Time Stamp	Select the location of the Time Stamp. Click the checkbox to enable/disable display the date and time stamp.
(2) Customize Title	Select the location of the Text Title. Click the checkbox to enable/disable display the text title.
(3) Title Text	Enter the title text, e.g. AVer.
(4) Logo	Select the location of the logo image file. Click the checkbox to enable/disable display the logo.
(5) Customize Logo	Upload your company logo. The maximum size is 64 x 64 pixels.

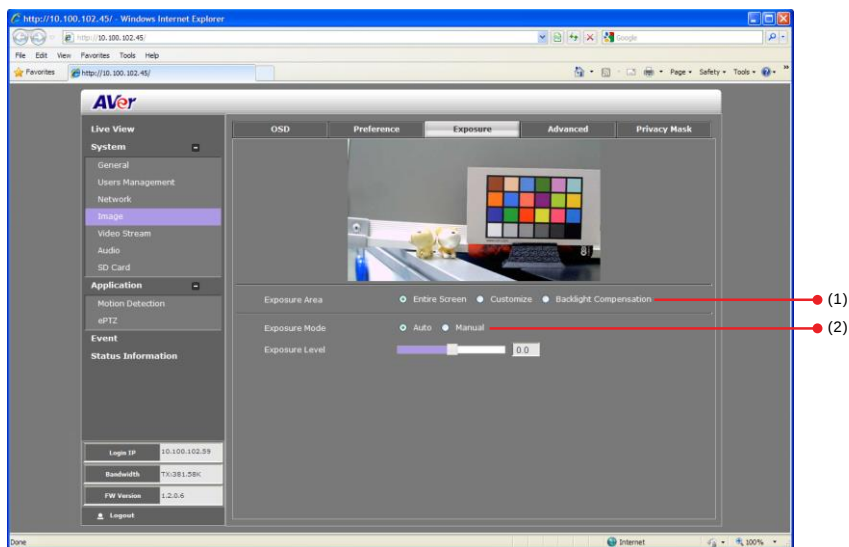
System > Image > Preference

In Preference tab, you can tune the IP camera white balance, display color or black & white, set the flicker frequency, change the video orientation, and adjust the brightness and contrast. After completing the setting, click Save to apply the new setting and Cancel to keep the old setting.



System > Image > Exposure

In Exposure tab, you can set the exposure zone, exposure mode, and calibrate the DC Iris. After completing the setting, click Save to apply the new setting and Cancel to keep the old setting.



Name	Function
(1) Exposure Area	Select the exposure area choices to define the light distribution and bring out more details. <u>Entire screen</u> - measure the entire screen to adjust the exposure. <u>Customize</u> - measure the exposure to where the adjustable and movable frame on the screen is located. Move the spot to dark zone to adjust the light condition. <u>Backlight compensation</u> - measure the exposure at the center of the screen.
(2) Exposure Mode	Select to automatically or manually adjust the exposure.

Auto - adjust exposure level from -2.0 to +2.0

Exposure Mode ☐ Auto ☒ Manual

Exposure Level +0.6

Manual - adjust max shutter and gain control

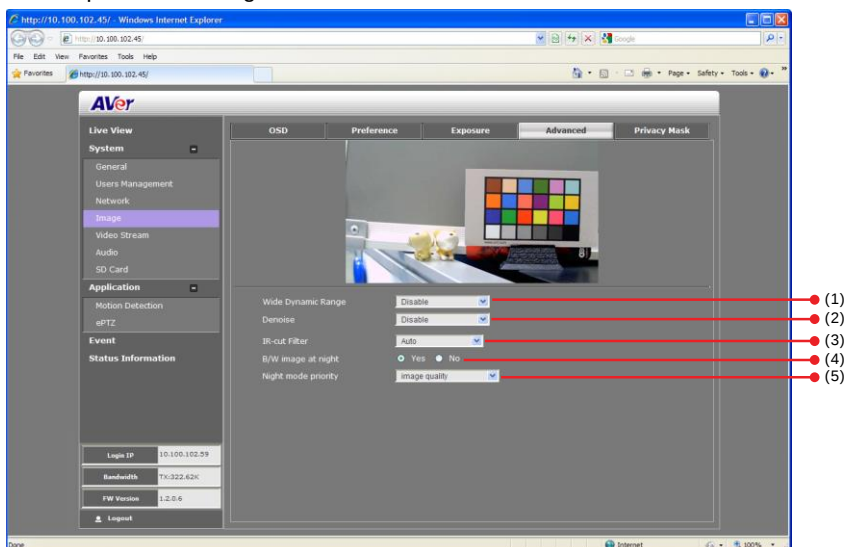
Exposure Mode ☒ Auto ☐ Manual

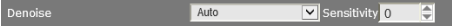
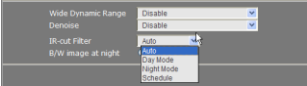
Max Shutter 1/240

Gain Control 95

System > Image > Advanced

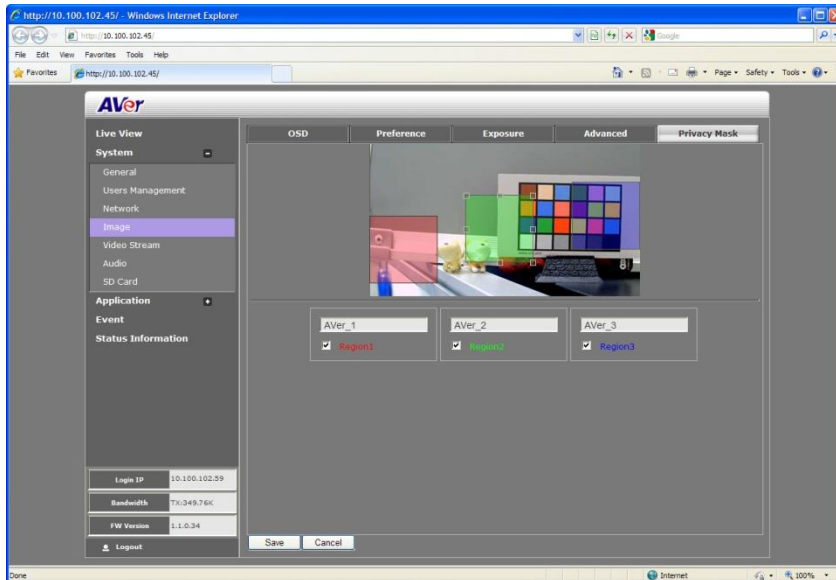
In Advanced tab, you can configure the Wide Dynamic Range, Denoise, IR-Cut Filter, and B/W image at night. After completing the setting, click Save to apply the new setting and Cancel to keep the old setting.



Name	Function
(1) Wide Dynamic Range	WDR effectively balances the video image on the screen in both bright and dark areas making it possible to see clear details. You can choose from 3 levels depending on your choice or disable WDR.
(2) Denoise	Select Disable/2D/3D to reduce the excessive noise on the video image.  <u>Auto</u> - automatically switch between 2D and 3D. Use Sensitivity option to adjust sensitive level. The higher level means the higher sensitivity. 
(3) IR-cut Filter	The IR cut filter is a mechanism that prevents the infrared light from hitting the sensor. During day time the IR light has an interfering effect on the image quality of the camera, which leads to corruption of color and contrast as well as blurring. At night time, the infrared light is used to achieve more detailed images in the dark or with low ambient light.  <u>Auto</u> – automatically switch on/off the IR cut filter. It uses the light sensor in front of the camera to determine the level of ambient light. <u>Day Mode</u> – switch on the IR cut filter at all time to prevent the IR light from hitting the sensor so that the color will not be corrupted. <u>Night Mode</u> – switch off the IR cut filter at all time to let the sensor receives the IR light which could help improve low light sensitivity. <u>Schedule</u> – specify the time on when to switch off the IR cut filter to night mode. The time format is hh:mm and in 24-hour clock time.
(4) B/W image at night	Select to enable/disable switching to B/W during night mode.
(5) Night mode priority	Select the one you want to prioritize during night mode image quality or frame rate.

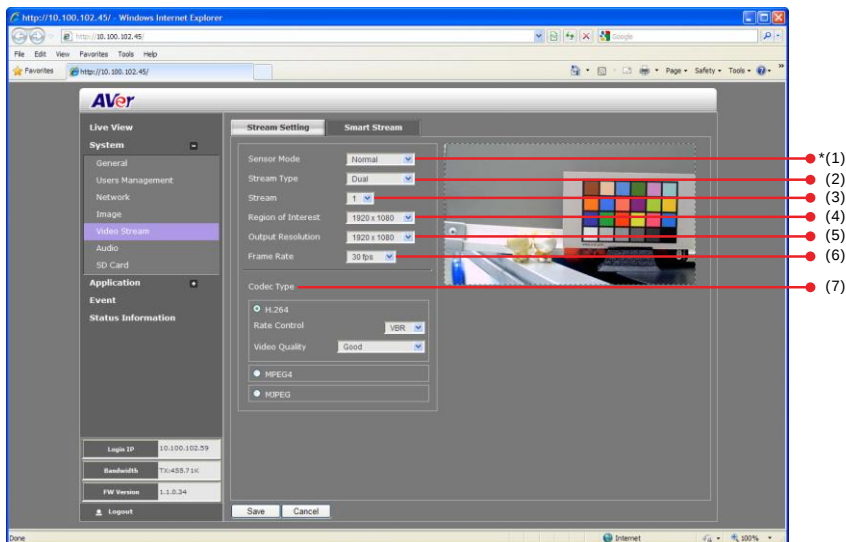
System > Image > Privacy Mask

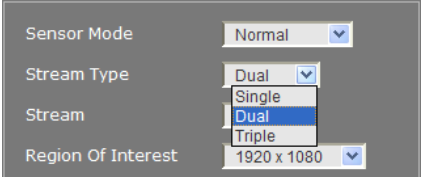
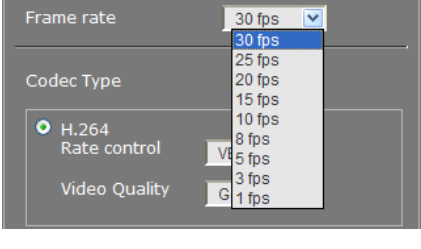
In Privacy Mask tab, you can enable 3 privacy masks. Simply adjust the size and position the mask on the area you want to conceal. The viewer will not be able to see the masked area. It will cover the video screen with black frame.



System > Video Stream

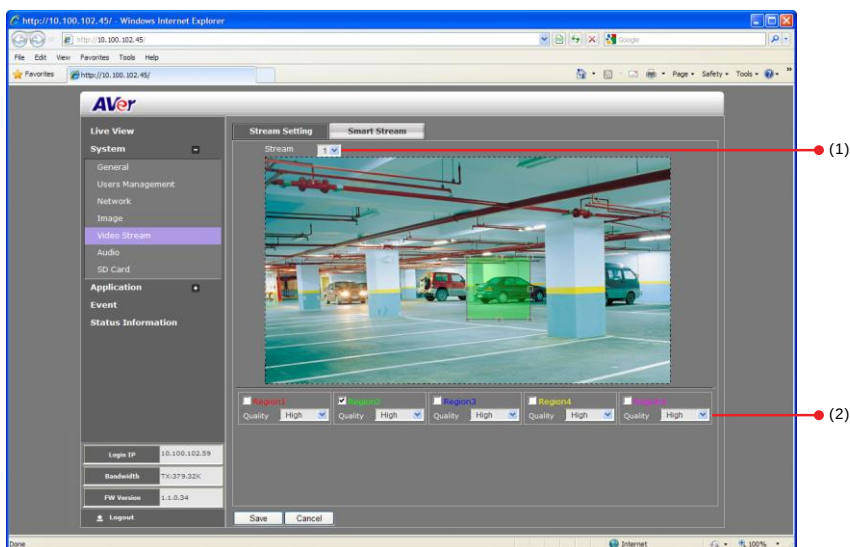
Both admin and operator levels can configure the Video Stream. After configuring the video stream setting, click Save to apply the new setting and Cancel to keep the old setting.



Name	Function
(1) Sensor Mode	Select sensor input resolution from either Normal or Wide Angle. * (Available for 3M pixel or above model)
(2) Stream Type	Select to transmit single or simultaneous multiple streams of 2 or 3 videos.
(3) Stream (4) Region of Interest (5) Output Resolution (6) Frame Rate (7) Code Type	
	(3) Stream Select the streaming source.
	(4) Region of Interest Select the cropping size of video.
	(5) Output Resolution Select the video size.
	(6) Frame Rate Select frame rate per second of video
(7) Code Type	Select the type of video compression codec. The supported codec is H.264, MPEG4, and MJPEG. On each stream, adjust rate control and video quality setting.
	

Name	Function
	VBR (Variable Bit Rate) by default use this setting if there is a need to maintain the image quality whenever there is lot of activities on the scene or no motion. This setting keeps the video stream constant as possible which increases the bandwidth requirement when there is high motion and decreases when there is no motion. The bandwidth must be able to accommodate high throughputs. CBR (Constant Bit Rate) use this setting if there is bandwidth concern. This setting is restricted to keep the bit rate setting. This could affect the image quality and frame rate if there is high activity that result in a bit rate that is higher than the set bit rate.

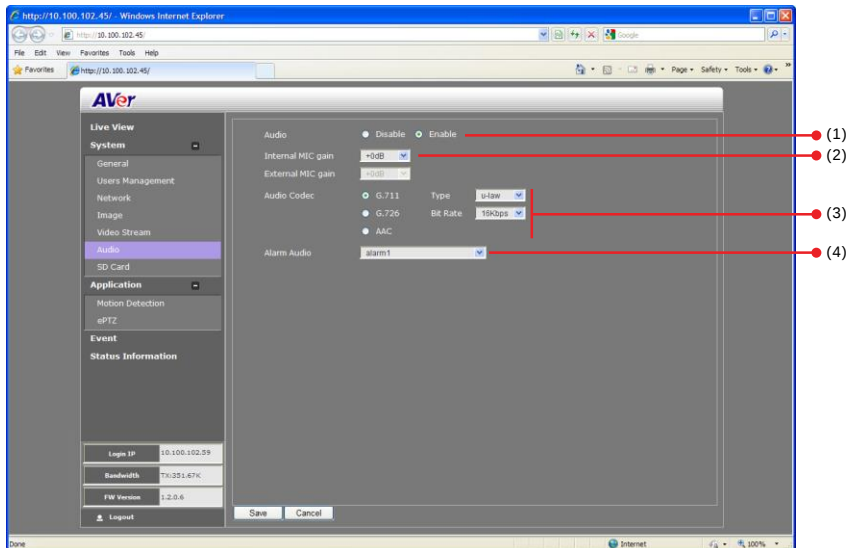
Smart Stream



Name	Function
(1) Stream	Select the streaming source. This option is only applied to H.264.
(2) Quality	High - video quality of selected area is better than that of un-selected area. Low - video quality of selected area is worse than that of un-selected area

System > Audio

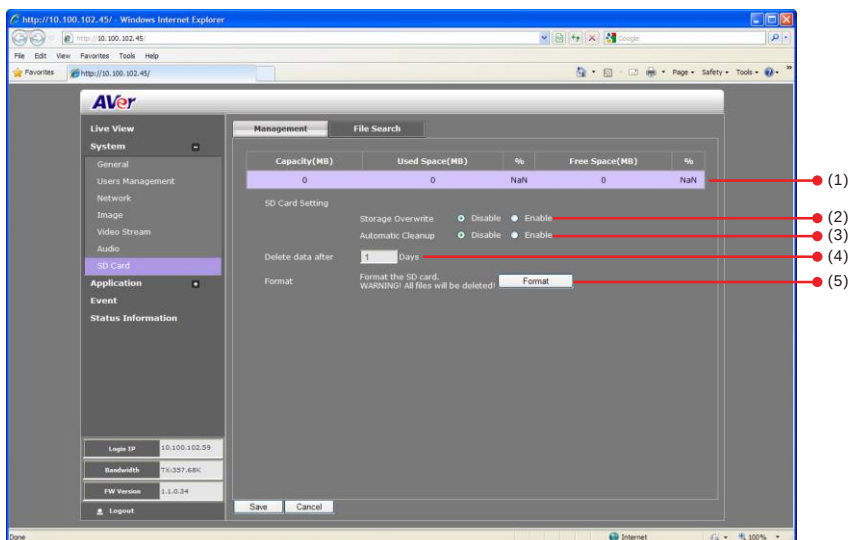
Both admin and operator levels can configure the IP camera audio setting. After configuring the Audio setting, click Save to apply the new setting and Cancel to keep the old setting.



Name	Function
(1) Audio	Select to enable/disable the IP camera built-in mic and mic port.
(2) Internal/External MIC gain	Select to boost up the internal/external mic gain or set to normal.
(3) Audio Codec	Select the audio protocol, algorithm, and audio bit rate. <u>G.711</u> – uses Pulse code modulation (PCM) of voice. <u>G.726</u> – uses 40, 32, 24, 16 kbit/s adaptive differential pulse code modulation (ADPCM) <u>AAC</u> – uses AAC codec
(4) Alarm Audio	Select to choose from 2 types of alarms sound or customer alarm to use the uploaded alarm sound. The supported sound format are in *.wav (PCM 8KHz/16bit Mono, 10 seconds).

System > SD/microSD Card > Management

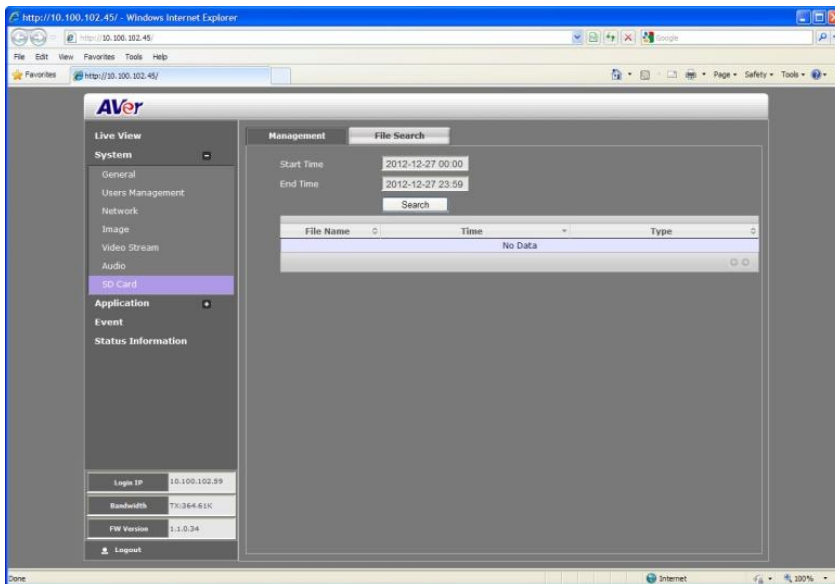
Both admin and operator levels can manage the SD/microSD Card local storage. After managing the SD/microSD Card setting, click Save to apply the new setting and Cancel to keep the old setting. We recommend formatting the SD/microSD card when using it for the first time.



Name	Function
(1) SD/microSD Card Info	Shows the SD/microSD card details. No details will appear if SD/microSD Card is not inserted.
(2) Cycle Storage	Enable/disable cycle recording. The old file in the SD/microSD card will be overwritten with the latest one when it has reached the maximum capacity.
(3) Automatic Cleanup	Enable/disable automatic clear the data in SD/microSD card. The file will be deleted when it reached the number of days set in Delete data after [xx] days.
(4) Delete data after	Enter the number of days you wish to retain a file.
(5) Format	Click Format to delete all the data in the SD/microSD card.

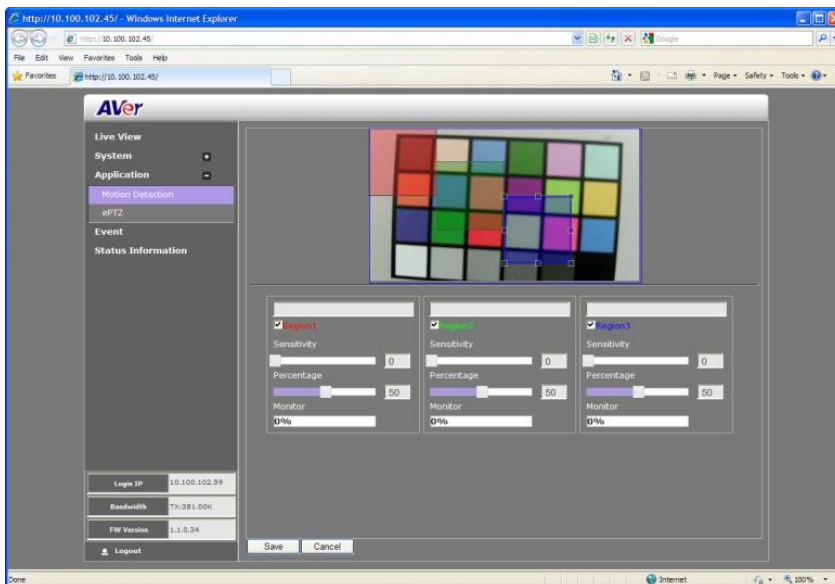
System > SD/microSD Card > File Search

Use this to search the captured image in the SD/microSD card.



Application > Motion Detection

Both admin and operator levels can specify up to 3 areas on the screen to monitor the motion. In the motion detection page, the frame will blink when the motion detected has reached the percentage threshold setting. This feature can be utilized to trigger a response in Event setting.

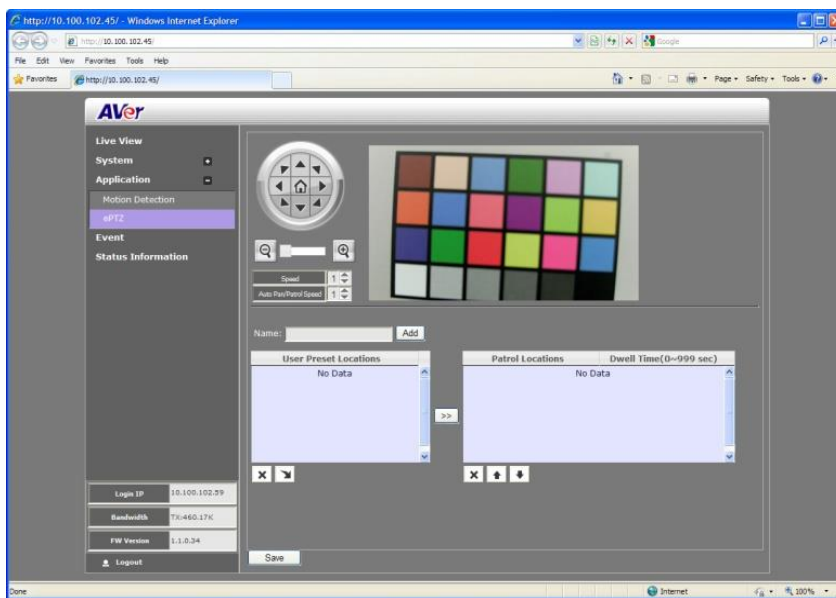


To Set the Motion Detection

1. Click Application > Motion Detection.
2. Enable the region check box to create a motion detection frame.
3. Move and adjust the frame to the area you want to detect the motion.
4. Adjust the sensitivity and percentage. Sensitivity detects the motion on the screen and assesses the changes in pixel thru percentage. The motion detection will activate when the Monitor level reaches the defined percentage.
5. Click Save to apply the new setting and Cancel to keep the old setting.

Application > ePTZ

Both admin and operator levels can customize the ePTZ setting. In this section, you can set the patrol target area, patrol sequence and dwelling time.



To Setup the ePTZ

1. Click Application > ePTZ
2. Use the direction buttons and zoom button to locate the patrol target area. Press  to view the full image and reset the zoom level.



3. Type a name for the patrol shooting area e.g. UpperLeft in the Name text box and press [Add]. The preset target area will be listed in the User Preset Locations. Click  to delete the preset target area and  to show the preset target area. Repeat step 2 and

3 to add more preset locations.

Name:

4. Select the preset target area in the list and press >> to create the patrol sequence. The selected present target area will be listed in the Patrol Locations.

User Preset Locations	Patrol Locations	Dwell Time(0~999 sec)
UpperRight	UpperRight	5
LowerLeft	UpperMiddle	1
LowerRight	UpperRight	1
Center	LowerLeft	1
UpperMiddle	Center	1
	UpperMiddle	1
	UpperRight	1

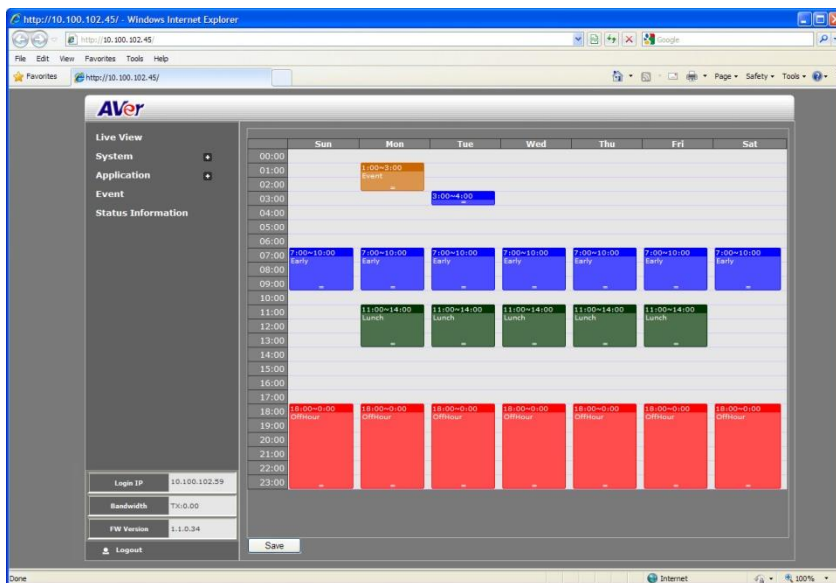
5. Set the dwelling time for how long you want to stay in the preset target area. Double-click and enter the time. Then click OK or press enter to apply the changes.

Patrol Locations	Dwell Time(0~999 sec)
UpperRight	5 OK
UpperMiddle	1
UpperRight	1
LowerLeft	1
Center	1
UpperMiddle	1

6. Click to delete the selected preset location in the Portal Locations list and to arrange the patrol order.
7. Click Save to implement the preset patrol setting.

Event

Both admin and operator levels can configure the Event setting. In this section, the IP camera can be configured to perform an action when an event is triggered at the specified time.



To Setup the Event

1. Click Event.
2. On the time table, click-drag to select from what time to what time to specify the period of the event.
3. Type a name for the Event setting. One word only and no special character.
4. Select the event color setting.

Event Name: (1~20 digital)

Event Color:

Schedule: to

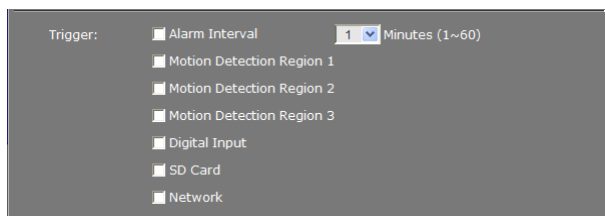
Days: ☐ Sun ☐ Mon ☐ Tue ☒ Wed ☐ Thu ☐ Fri ☐ Sat

5. Set the schedule. You can edit the time and choose the days to apply the same time setting.

Schedule: Time: ☒ From to

Days: ☐ Sun ☒ Mon ☒ Tue ☒ Wed ☒ Thu ☒ Fri ☐ Sat

6. Enable the type of selection for the IP camera to trigger.



- Alarm Interval

This triggers the IP camera based on the set time.

- Motion Detection Region 1/2/3

This triggers the IP camera when a motion is detected on the motion detection region.

- Digital Input

This triggers the IP camera when the external digital input device or sensor is activated.

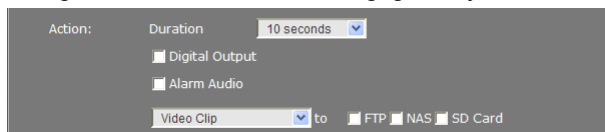
- SD Card / microSD Card

This triggers the IP camera when the SD/microSD card is removed.

- Network

This triggers the IP camera when the Internet connection got disconnected.

7. Select the type of response for the IP camera to perform when a trigger is activated. Set the duration. Choose digital output to send recorded video or still image, or Alarm Audio to sound the alarm. Then select the type of server/media to where to send the file. To configure the FTP and NAS setting, go to System > Network > Server tab.



- Snapshot and System log support sending the file thru Mail, and storing in FTP, NAS or SD/microSD card. You can enable multiple options to send and save the captured image.
8. Video Clip supports storing in FTP, NAS or SD/microSD card. You can only select one storage option to save the video file. For better performance, we recommend setting the video stream is default value. Click OK to add the event setting, Delete to remove, and Cancel to void and close the event setting.

Status Information

Show the information about the device and network setting.

The screenshot displays the AVer FX3000-R web interface in a Windows Internet Explorer browser window. The address bar shows the URL `http://10.100.102.45/`. The interface has a dark grey sidebar on the left with a 'Live View' section containing links for 'System', 'Application', 'Event', and 'Status Information'. The main content area is titled 'Device' and 'Network'. The 'Device' section lists: Model Name (FX3000-R), System up Time (0 Days, 4:19:30), Hardware (1.0.0.0), Firmware (1.2.0.8 / 080CN03B-DDS), and SD Card. The 'Network' section is divided into 'IPv4 Information' (IP Address: 10.100.91.56, Mask: 255.255.255.0, Gateway: 10.100.91.234, Primary DNS: 10.100.1.5, Second DNS: 10.100.1.6), 'IPv6 Information' (IP Address: fe80::218:1aff:fe60:1096, Gateway, Primary DNS), and 'General' (MAC Address: 00:18:1a:60:10:96, DDNS Status: DDNS does not launch!). A bottom status bar shows 'Login IP: 10.100.102.59', 'Bandwidth: 7K/351.67K', 'FW Version: 1.2.0.6', and a 'Logout' button.

Device	
Model Name	FX3000-R
System up Time	0 Days, 4:19:30
Hardware	1.0.0.0
Firmware	1.2.0.8 / 080CN03B-DDS
SD Card	

Network	
IPv4 Information	
IP Address	10.100.91.56
Mask	255.255.255.0
Gateway	10.100.91.234
Primary DNS	10.100.1.5
Second DNS	10.100.1.6
IPv6 Information	
IP Address	fe80::218:1aff:fe60:1096
Gateway	
Primary DNS	
General	
MAC Address	00:18:1a:60:10:96
DDNS Status	DDNS does not launch!

Login IP	10.100.102.59
Bandwidth	7K/351.67K
FW Version	1.2.0.6
Logout	