3 MP Pan/Tilt Wireless IP Camera

User Manual

Release: 6 April 2012

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Declaration

Federal Communication Commission interference statement:

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

FCC Caution

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions:

- (1) this device may not cause harmful interference and
- (2) this device must accept any interference received, including interference that may cause undesired operation

RF exposure warning: The equipment complies with RF exposure limits set forth for an uncontrolled environment. The antenna(s) used for this transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

You are cautioned that changes or modifications not expressly approved by the party responsible for compliance could void your authority to operate the equipment.

Chapter I Introduction

1.1 Highlights of your new Pan/Tilt IP Camera

Congratulates on purchasing this high-resolution 3Mega pixels Pan/Tilt Wireless IP Camera! This IP Camera provides 3Mega pixels high-resolution video quality, with the advanced megapixel lens, you can view images remotely in more detail than conventional close-circuit cameras.

Other highlights of this Pan/Tilt IP Camera include:

- Ultra-high resolution 5Mega pixel CMOS image sensor.
- Full Pan / Tilt Control.
- Digital input / output interface for peripherals connection such as external alarm, sensor, etc.
- Audio input / output interface, support full duplex communication in both directions.
- Built-in SD-card slot for local storage, which can act like a stand-alone DVR.
- Two Way audio.
- 3GPP Mobile Surveillance Supported.
- ONVIF Compliant.
- Support IEEE802.11b/g/n
- Equipped with one 3dBi detachable antenna
- Support WEP / WPA-PSK / WPS2-PSK for wireless security
- Support motion detection in three independent windows.

1.2 Safety Instructions

Please follow the safety instructions listed below when you're using this Pan/Tilt IP Camera, or you would harm this camera and / or yourself! Also, the warranty will become void if you disobey these safety instructions.

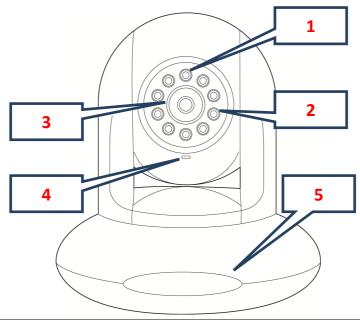
- This Network IP Camera is sophisticated electronic device; do not drop it from high places.
- Do not place this IP Camera at hot / humid places, and avoid direct sunlight.
- This IP Camera is not a toy; keep it out from the reach of children.
- Do not insert any accessories of this IP Camera into your body.
- Make sure lens set is secured when you're using this IP Camera, lens set may fall down if it's not properly secured, and cause damage to human and itself.
- If you want to use this IP Camera at any place that may be spilled by water or dirt, the secure and water-proof camera housing is required.
- Do not pull any cord that is connected to this IP Camera by force.
- IP Camera will become hot after long time of use. Refrain from touch IP Camera with hand, or cover this IP camera with paper or cloth.
- Never connect powered cable to IP Camera's DI/DO contacts.
- If the IP Camera falls into water when powered, do not attempt to retrieve it back by yourself! Find a qualified electric technician for help.

1.3 Packaging Contents

Please check the contents of your new Network Pan/Tilt IP Camera when you unpack the package. If any item is missing, please contact your dealer of purchase for help.

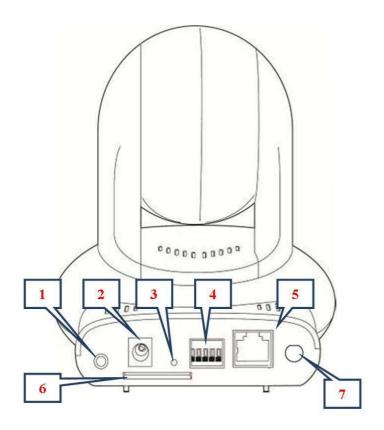
Item No.	Description	Quantity
1	Network Pan/Tilt IP Camera	1
2	DC power adapter	1
3	3dBi detachable antenna	1
4	Wall mounting Kit	1
5	CDROM	1
6	Quick installation guide	1

1.4 Familiar with your new Network Pan/Tilt IP Camera



Item	Description
1 - Light sensor	Detects light level of the place where this IP camera install.
2 - IR LEDs	Lights up when it's too dark
3 - Focus ring	If the image looks fuzzy, try to turn this focus ring clockwise
	or counter-clockwise to adjust focus until the image looks
	clear
4 - Microphone	Receives voice
5 - LED indicators	There are 3 LED lights inside to indicate the operation of
	this IP camera:
	Left: Network activity LED
	On: Transferring data
	Off: Without connect network
	Flash:
	Right: Power LED
	On: IP camera is switched on
	Off: IP camera is switched off
	Please note: These LEDs can be switched off regardless the
	operation status of IP camera in IP camera's configuration
	menu. This will be helpful if you don't want other people to
	know the operation status of this IP camera.

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DI/DO PIN ASSIGNMENT	
Item	Description
GND	Signal ground
DO	Digital Output #1
DI1	Digital Input #1
DI2	Digital Input #2

To insert or release a wire, press the button of the PIN you wish to insert or release.

Item	Description
1 - Audio out	Connects to external audio amplifier to output voice. Use
	3.5mm audio cable.
2 - DC12V	Connect to DC power adapter output
3 - WPS/ RESET	RESET: When the IP camera is not functioning properly, you
	can use a pen or similar object to press this reset button to
	reset the IP camera. You can also press and hold this button
	for more than 5 seconds to clear all settings of IP camera,
	include administrator password.
	WPS: When you want to connect Wi-Fi AP easy. Please both
	press and hold this button and AP's WPS button more than 1
	second. IP camera will connect AP and set value during 5 ~10
	seconds.
4 - DI/DO	Digital input / output dry contacts. Connects to external
connectors	peripherals by wire. See next page for pin definitions.
	WARNING: DO NOT CONNECT POWERED CABLE!
5 – ETHERNET	Connect to your local area network by Ethernet cable.
6 - SD card slot	Inserts SD card for video recording. Maximum 32GB** of
	SDHD card supported.
7 – Connector for	Connect the detachable antenna when wireless connection is
detachable	required.

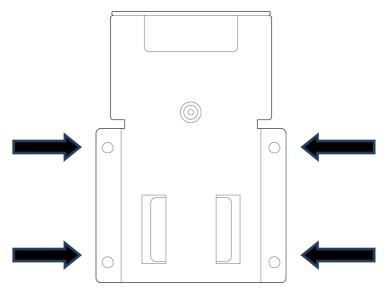
antenna

1.5 Installation of IP Camera

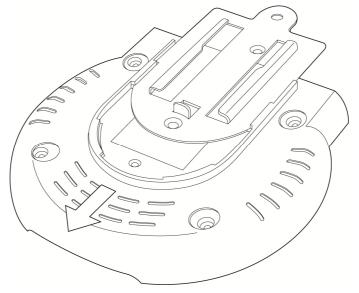
Please follow the following instructions to setup your new IP camera.

Please note: If you wish to place this IP camera on the table, please skip step 1 to 5.

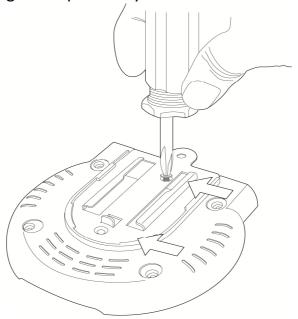
1. Secure the wall mounting metal plate A on the wall, secure it by 4 screws at the screw holes indicated by black arrows. You can secure it upside-down when required.



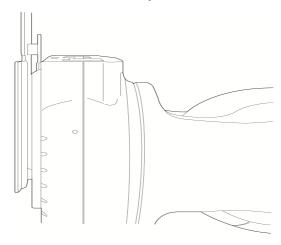
2. Insert wall mounting metal plate B into the slot at the bottom of this IP camera by the direction indicated by black arrow.



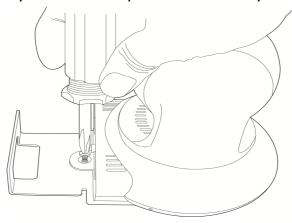
3. Secure wall mounting metal plate B by 2 screws.



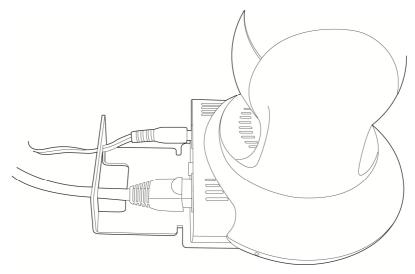
4. Insert the IP camera (with wall mounting metal plate B installed) into wall mounting metal plate A, which is already secured on the wall.



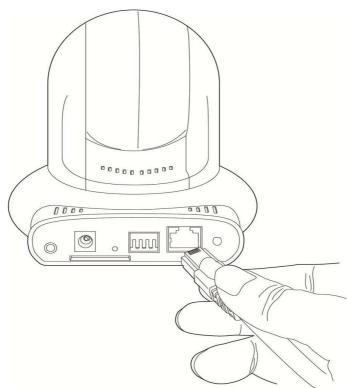
5. Secure the IP camera on the wall by securing wall mounting metal plate A and B together by screw at the place indicated by black arrow.



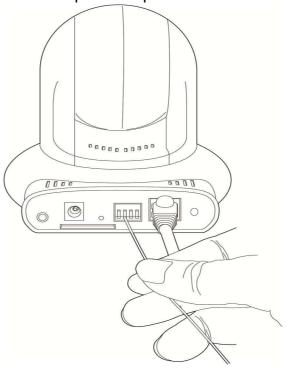
6. When mounted on the wall, cables can pass through wall mounting metal plate A as indicated by the picture below.



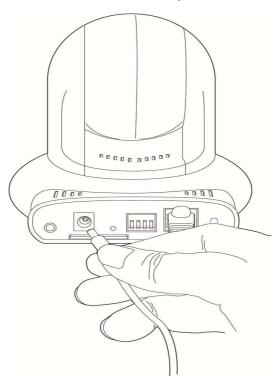
7. Insert Ethernet cable to the Ethernet port of this IP camera for Ethernet connection.



8. Insert DI/DO signal cable(s) into DI/DO port of this IP camera. If you don't have DI/DO accessories, you can skip this step.

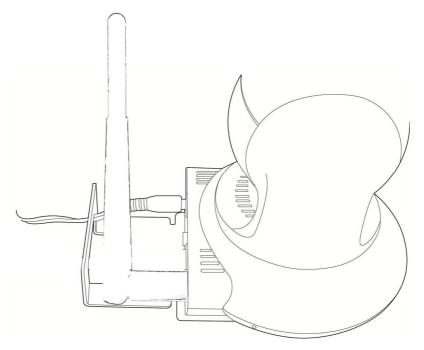


9. Insert AC power adapter's cable into DC12V port of this IP camera.



10. The LED lights should light up after few seconds, and the IP camera will test its Pan/Tilt motor within 1 minute (Do not disturb IP camera at this stage). Please refer to following chapters for detailed operating instructions.

11.If it needs to set up wireless connection, please attach the wireless antenna to the IP camera and configure through wired connection. Remove the network cable after finish all relative wireless configuration then user can access the camera through wireless connection. Please refer to the section 3.3.3 for detail configuration.



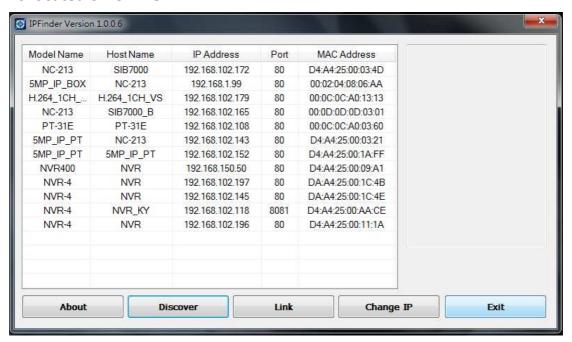
Chapter II Using Network Pan/Tilt IP Camera by Web Interface

2.1 Locate the IP address of Network Pan/Tilt IP Camera

You can use your new Network Pan/Tilt IP Camera by its web user interface via web browser. Currently only Microsoft's Internet Explorer is supported.

You must know the IP address of IP Camera before you can connect to it. The IP Camera will use DHCP server on your local network to obtain an IP address automatically by default. So, you can check your DHCP server's IP address lease table to find the IP address of IP Camera.

You can also use the utility named 'IPFinder.exe' to find the IP address of IP Camera, which is located on CD-ROM:



Press 'Discover' button to search for all IP Cameras on your local network (make sure all IP Cameras are powered on and connect to local network first). When you find any IP Camera, you can click on it and click 'Link' button to connect to it by your web browser.

If you need to change a certain IP Camera's IP address, you can also click on the IP Camera you wish to change IP address, then click 'Change IP' button to change select

IP Camera's IP address setting.

If you no longer need to use this utility, click 'Exit' button to close it.

Please note:

If you have several network connections, such as "Wireless Function", please disable the "Wireless Functions" or / and other network connections that is not connected to IP camera, or IP finder may fail to search IP camera!

2.2 Connect to IP Camera's Web User Interface and Install ActiveX Plugin

When you know the IP address of IP Camera, you can connect to it by Internet Explorer web browser by entering its IP address in address bar. The use login screen will appear when you get connected:



IP Camera's administrator username and password are both 'admin' (lower case) by default. Click 'OK' button or press 'ENTER' key on your keyboard when you finish entering username and password.

When you connect to IP Camera for the first time, you'll see the following message:

This message prompts you that you need to install ActiveX plugin before you can see the video from IP Camera.

For IE 8 and earlier version:



Right click the indication bar and click: "Install This Add-on for All Users on This Computer..." to install ActiveX plugin.

For IE 9:



Click 'Install' button located at the bottom of IE to install ActiveX plugin.

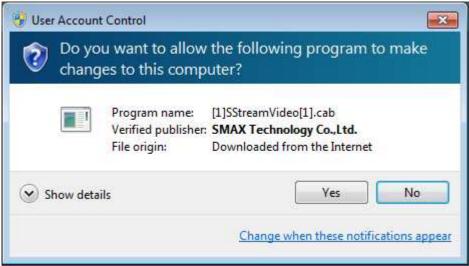
If you're prompted that:

'Windows Firewall has blocked some features of this program'



Click 'Allow access', or IP Camera will not be able to function properly.

When you're installing Internet Explorer plugin, you may also be prompted that if you want to allow changes to be made to your computer:



Click 'Yes' to allow changes.

After ActiveX plugin is installed, you should be able to see the video stream from camera.



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NOTE:

If this is the first time you use this IP Camera, you can jump to chapter 2.4 for instructions on *Setup Wizard*, which will guide you to complete the software setup of your new IP Camera.

2.3 Viewing Live Video

After ActiveX control is installed, you can view IP camera's video by web browser. Just connect to IP camera by web browser and login, then you can see live video from IP camera:



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There are various controls on web page, here are descriptions of every control item:

Item	Description
'Home' button	This button is visible in all setup pages of IP camera, and
	you can go back to live video view by clicking this button
	when you're in other page.
Stream	Select video stream type: H.264 or MJPEG. H.264 required
	less network bandwidth and this will help when network
	connection is slow.
Digital Output	Switch digital output interface on or off.
(ON / OFF)	
Client Settings	Open 'Client Setting' menu.
Configuration	Open 'Configuration' menu.
Language	Open language menu, you can switch web interface to
	other language.
	Available languages: English, Simplified Chinese, Traditional
	Chinese
Original size /	Switches live image view between original size (full size: 3M
Fit screen	pixels) and fit screen (smaller size).

	If you want to see video in detail, switch to original size. If your computer monitor's resolution is not enough and you want to see full image view, switch to fit screen and image size will adjust automatically.
'Connect' button	Start live video view.
'Disconnect' button	Stop live video view.
'Snapshot' button	Take a snapshot or camera video and save image file on your computer. When you click this button, a new window will appear: Save Picture Click 'Save' button when you see the image you wish to save, and you'll be prompted to indicate the folder on your computer to save image file. If you changed your mind and don't want to save image file, click 'Cancel'.
'Start Video Record' button	Click this button to record video and save video file on your computer. You'll be prompted to indicate the folder on your computer to save video file.
'Enable Digital Zoom' button	This function will enlarge video view digitally from 1X to 10X, so you can see objects in video in detail. Please note: that digital zoom uses computer algorithm to enlarge the video and some details may lost. If you need to focus on detail of specific chiests in video view places use
	focus on detail of specific objects in video view, please use optical zoom ring on lens set of IP camera.

Enable / Disable	When mute is enabled (▲), you will not hear the voice from
mute button	IP camera; If you want to hear voice from IP camera, click
	this button to disable mute (<a>I).
	You can drag the slide bar (
	enable/disable mute button to adjust audio playback
	volume.
Start / Stop talk	Start or stop playing your voice through IP camera's audio
Button	output. When talk is stopped, people at IP camera will not
	hear you.
	Please note: you need a microphone connected to your
	computer, and computer's mixer setting must enable
	microphone recording, or nothing will be outputted by IP
	camera.

2.4 Client Settings

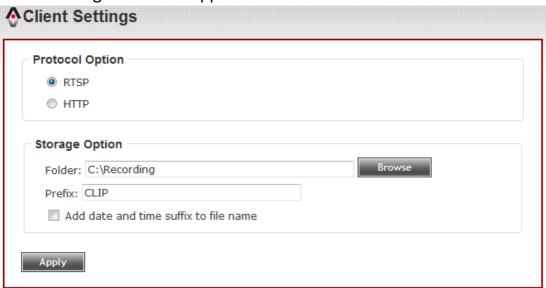
In 'Client Settings' menu, you configure basic IP camera settings like data transfer protocol and data storage folder.

To access 'Client Settings' menu, click 'Client Settings' button on the left.



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The following screen will appear:



Here are the descriptions of every setup item:

Item	Description
RTSP	Select this option to use RTSP (Real-Time Streaming
	Protocol) to transfer video data.
HTTP	Select this option to use HTTP (Hyper-Text Transfer
	Protocol) to transfer video data.
	If you don't know which one you should use, select 'RTSP'.
Folder	Salact a folder on your computer to cave recorded video
roluel	Select a folder on your computer to save recorded video.
	Click 'Browse' button and you'll be prompted to select a
	folder.
Prefix	When saving video files, the characters you typed in
	'Prefix' field will be used as leading characters of video
	file's name.
	For example, the default setting of 'Prefix' is 'CLIP', and
	video file's named will be 'CLIP.avi'.
Add date and time	Check this box to add data and time to the ending part of
suffix to file name	video file's filename, so you can see the date and time the
	video file is created directly from its filename.

When you finish with above settings, click 'Apply' button to save changes.

Chapter III Advanced Configuration

If you wish to configure IP camera's settings, you can access IP camera's 'Configuration' menu, which provides various kinds of system setting.

To access configuration menu, click 'Configuration' button on the left.

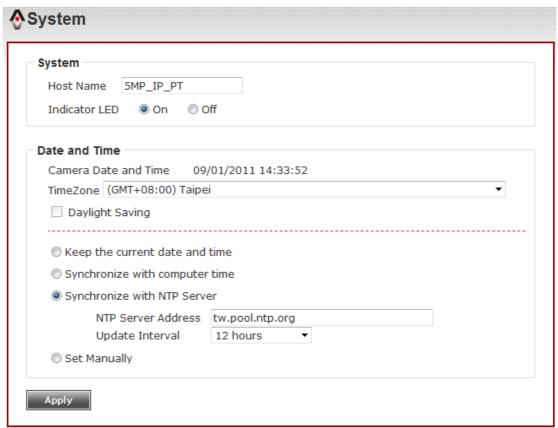


The 'Configuration' submenu will appear, please pick a setup item you wish to configure.



3-1 System

In this menu, you can configure basic IP camera settings like hostname and time.



Item	Description
Host Name	Input the IP camera's hostname here, it can be any meaningful words or characters that will help you to identify this IP camera. You can use IP camera's installation location as host name, and this will help you to identify IP camera when you have many IP cameras installed.
Indicator LED	The LED lights located at the back of IP camera is switched on by default. But, if you don't want other people to know the status of this IP camera (so they will know this IP camera is operating etc.), you can select 'Off' and LED lights will be switched off.
Timezone	Select the time zone of residence from dropdown menu to keep correct date and time.
Daylight Saving	If the area you live uses daylight saving, check this box;

	otherwise do not check this box to keep time correct.
	•
Keep the current	Select this option and date / time setting will not be changed
date and time	when you click 'Apply' in the page.
	You can check 'Camera Date and Time' item in this page to
	know IP camera's current date and time setting.
Synchronize with	Select this item and IP camera will use your computer's time
computer time	as its time.
Synchronize with	Select this item and IP camera will keep its date and time
NTP Server	setting synchronized with specified time server (NTP server).
	Please input NTP server's IP address or host name in 'NTP
	Server Address' field, and select time update interval from
	'Update Interval' dropdown menu.
	Please note that if this IP camera can't access Internet, you
	must have a time server on local area network, or set the
	time manually.
Set Manually	Set IP camera's date and time manually. Please set current
	date and time by 'Date' and 'Time' dropdown menu.

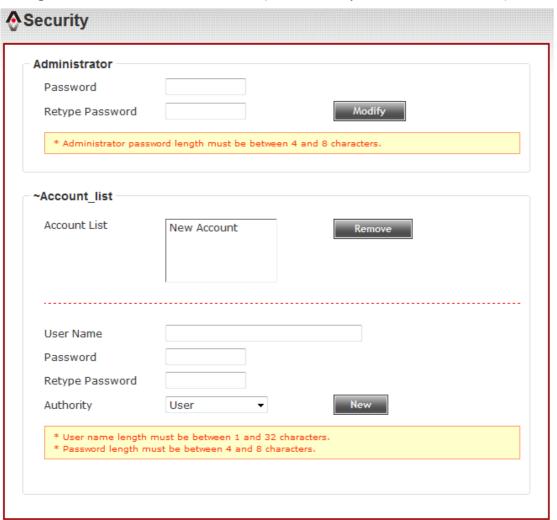
When you finish with above settings, click 'Apply' button to save changes.

3-2 Security

In this menu, you can configure IP camera's login account. There are three kinds of account:

- Administrator (Can view IP camera's video and make changes of camera setting)
- User (Can view IP camera's video and see settings, but can't make any change)
- Guest (Can view IP camera's video only)

There can be multiple users, but only one administrator is allowed, and you can't change administrator's user name (it will always be 'administrator').



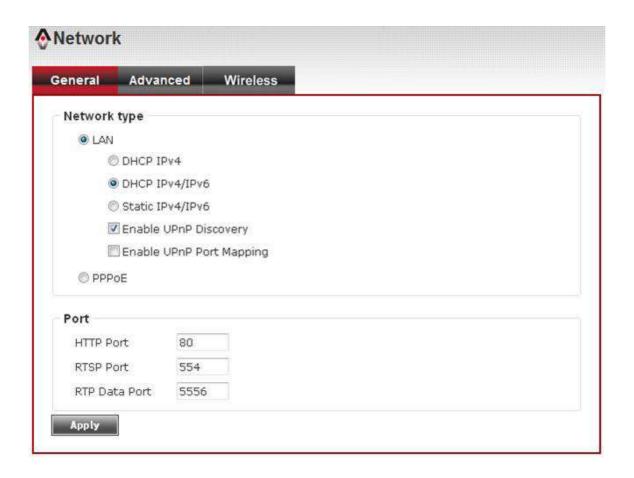
Item	Description
Password / Retype	Input administrator's new password in both 'Password' and
Password	'Retype Password' field, and click 'Modify' button to change
(Administrator)	administrator's password.
	Please note: Don't forget administrator's password! Or
	you'll need to reset IP camera's all settings to get
	administrator's password recovered.
Account List	Here lists all users existed in IP camera. If you want to
	remove one user, click it in the list, and then click 'Remove'
	button.
	If no user is existed, 'New Account' message will be shown
	here.
User Name	Input new user's username here. User name must be
	greater than 1 character and less than 32 characters.
Password / Retype	Input this user's password in both 'Password' and 'Retype
Password	Password' field.
Authority	To define this user's access privilege, select 'User' or 'Guest'
	in dropdown menu.
	When you finish inputting new user's information, click
	'New' button to create a new user.

3-3 Network

You can configure the network camera's general and advanced network settings here.

3-3-1 "General" Setup Page

Set up IP address for this IP camera. This IP camera supports both IPv4 and IPv6 IP address.



Item	Description
LAN	Select this option to assign an IP address to LAN port (or obtain an
	address from DHCP server automatically).
	Available options are:
	DHCP IPv4: Obtain an IPv4 IP address from DHCP server on LAN

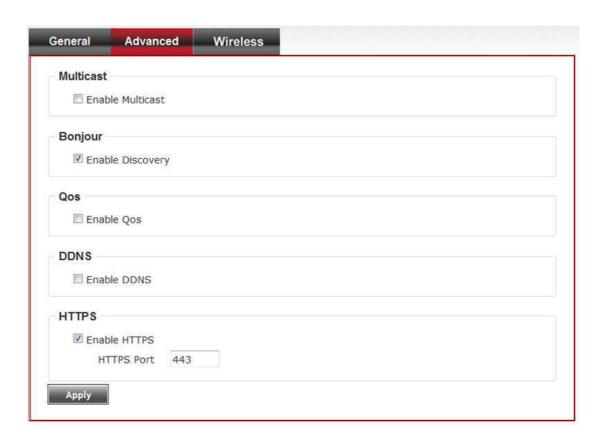
	automatically.
	DHCP IPv4 / IPv6: Obtain both IPv4 and IPv6 address from DHCP server on LAN automatically.
	Static IPv4 / IPv6: Assign an IPv4 / IPv6 address to IP camera manually. If you don't have a DHCP server on your local area network, you must use this option to specify an IP address.
	IP Address(IPv4): Input IPv4 IP address* IP Address(IPv6): Input IPv6 IP address* Prefix Length: Input IPv6 IP address' prefix length (0-128)
	Subnet Mask: Input subnet mask
	Gateway: Input gateway address
	Primary DNS: Input DNS server's IP address
	Secondary DNS: Input backup DNS server's IP address, you can leave this field blank.
	* You can leave this field blank, if you only wish to use IPv4 or IPv6 IP address.
	Enable UPnP Discovery: Check this b ox to enable other
	devices on network to discover the presence of this IP
	camera by UPnP. It's recommended to enable this
	function.
	Enable UPnP Port Mapping: When UPnP is enabled,
222 5	check this box to enable UPnP's port mapping.
PPPoE	Select this option to use PPPoE to connect to network. You have to
	input PPPoE username and password assigned by network operator to get connected.
HTTP Port	Input IP camera's web connection port number here. When this
	port number is changed, you need to change web browser's port
	number you used to connect to IP camera.
	For example, IP camera's IP address is 192.168.2.3, and if you
	changed HTTP port number to 82, please input
	'http://192.168.2.3:82' in web browser's address bar to access IP

	camera's web configuration interface.
RTSP Port	Input RTSP port number. When this port number changes, you
	must change corresponding settings in external network devices
	(NVR or CMS software) so they can receive this IP camera's video.
RTP Data Port	Input RTP data port number here.

When you finish with above settings, click 'Apply' button to save changes.

3-3-2 "Advanced" Setup Page

You can setup advanced network settings in this page. This page is intended for advanced settings only, and this IP camera will work fine even you don't make any changes to this page.

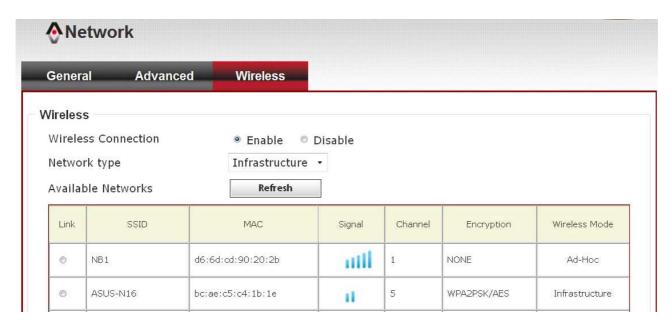


Item	Description
Multicast	Enable video multicast:
	Multicast Group Address: Input multicast group
	address here, must be an address between 232.0.0.0 to

	222 255 255 255
	232.255.255.
	Multicast video port: Input port number for video multicast here.
	Multicast RCTP video port: Input port number for RCTP video here.
	Multicast audio port: Input port number for audio here.
	Multicast RCTP audio port: Input port number for RCTP audio here.
	Multicast TTL: Input TTL value for multicast here.
Bonjour	If you're using MacOS and you have Bonjour installed, you can use it to discover this IP camera.
QoS	Enable QoS to improve the data transfer priority of this IP camera
	(Your local area network must support QoS).
	You can select Video / Audio's QoS DSCP value (0 to 63), or both
DDMG	video and audio.
DDNS	Enable DDNS support if your ISP assigns dynamic IP address to you.
	You must register a dynamic IP service first. Currently this IP
	camera supports Dyndns and TZO dynamic IP service.
	Provider: Select dynamic IP service provider.
	Host Name: Input the host name you obtained from dynamic IP
	service provider.
	User name: Input user name used to login dynamic IP service
	provider.
	Password: Input the password used to login dynamic IP service
	provider.
HTTPS	Check 'Enable HTTPS' box to enable HTTPS channel to encrypt
	transferred data. You can also define HTTPS port number in 'HTTPS
	Port' field if you don't want to use default value '443'.

When you finish, click 'Apply' to save changes.

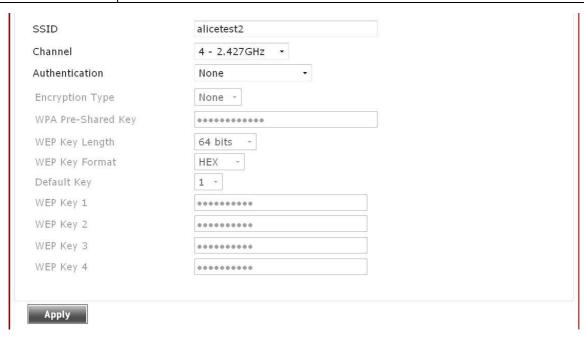
3-3-3 Wireless



The descriptions of every setting in this menu will be given below:

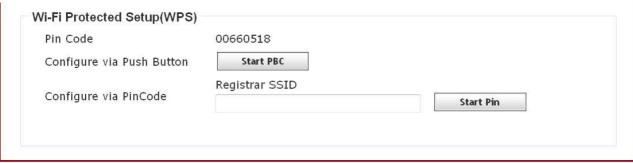
Item	Description
Wireless	Select "Enable" to activate wireless network function of this IP
Connection	camera, select "Disable" to disable it.
Network Type	Select the network type of wireless connection.
	Available options are "Infrastructure" (Connect the IP camera
	to a wireless access point), and "Adhoc" (This IP camera will
	become a stand-alone wireless network point, other wireless
	computers / devices can discover this IP camera and connect to
	it without wireless access point). You can set to "Adhoc" when
	you don"t have any wireless access point, but your computer
	has wireless network card. Set to "Infrastructure" when you
	have wireless access point, and you have computers with wired
	network connection.
Available	Here shows all wireless access points found by this IP camera.
Networks	Please note not all access points will be displayed at the same
	time, if the access point you expected to connect does not
	appear, you may have to click "Refresh" button for several
	times until it appears. The descriptions of all fields is listed
	below: Connect: You can select the wireless access point you
	wish to connect here. SSID: the SSID of all found wireless access
	points will be shown here. Some wireless access point may hide
	their SSID; in this case, you have to identify them by their MAC
	address. MAC Address: If you there are many wireless access

points in proximity or some wireless access point hides it sSID, you can use MAC address to distinguish them. Signal: Shows the radio signal strength in percent. Channel: Shows the radio channel of this wireless access point. Encryption: Shows the encryption type used by this wireless access point. You must use the same encryption type if you wish to connect to a certain wireless access point. If the wireless access point does not use encryption, "Disabled" will be displayed here. Network Type: Shows the network type of a certain wireless access point (Infrastructure or Adhoc).



SSID	Input the SSID of the wireless access point you wish to connect.
	It should be less than 32 alphanumerical characters. When you
	select a wireless access point above, it "s SSID will be filled in
	this field automatically. However, if the SSID is not displayed
	(the wireless access point you selected choose to hide it"s
	SSID), you have to know it "s SSID and input it here, or you will
	not be able to connect it.
Channel	Select the radio channel you wish to use here. When network
	type is "Infrastructure", the radio channel is auto-selected
	according to the channel that wireless access point uses. You
	can only select the channel number when network type is
	"Adhoc".
Authentication	It includes None, Open System, Shared Key 64bits and 128bits,
	WPA-PSK, WPAS-PSK. Select one of them then the relative
	items below will transfer gray scale to black scale. Configure

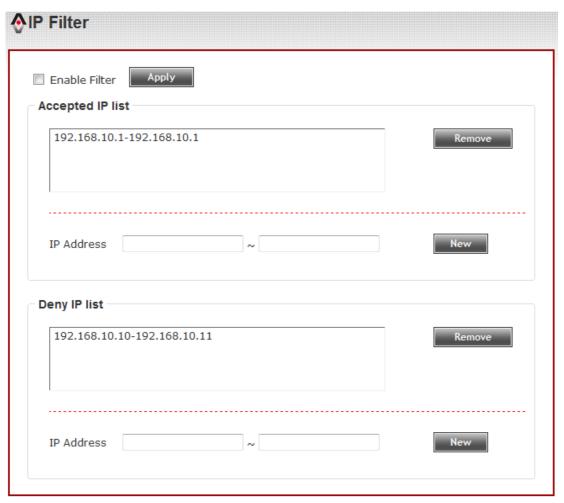
the setting consistent with the setting on the wireless router/AP that this IP camera will join the wireless network. Apply the settings then check the wireless networking.



Pin Code	Here displays the WPS pin code used to connect to WPS-enabled wireless access points. You have to input this number into the WPS enabled access point to establish WPS connection.
Configure via Push Button	Click this button and this camera will enter PBC-style WPS connection state for 120 seconds. Please push "Start PBC" button on the wireless access point you wish to connect within 120 seconds to establish WPS connection (The remaining time will be displayed on the button). If connection can not be established after 120 seconds, you"ll be prompted by a message box, and you can press "Start PBC" button to try again.
Configure via PinCode	If you have wireless access point's WPS PIN code, you can input it here and press "Start PIN" button to start to establish PIN-style WPS connection.

3-4 IP Filter

When this IP camera is directly connected to Internet and not protected by firewall, this function acts like an mini built-in firewall to protect the safety of this IP camera and avoid attacks from hackers.



Item	Description
Enable Filter	Check this box to enable IP address filter, uncheck this
	Box to disable this function.
Accepted IP list	Here lists all IP address that can build connections to this IP
	camera. If you want to remove a set of IP address from the list,
	click on the IP address and click 'Remove' button.
IP Address	Input the starting and ending IP address of IP address you wish
(Accepted IP list)	to accept connections here. IP camera will only accept
	connections established from these IP address.
	If you want to specify one IP address only, input the

	same IP address in both field.
	Click 'New' button to add IP address into accepted
	IP list.
Deny IP list	Here lists all IP address that cannot build connections to this IP
	camera. If you want to remove a set of IP address from the list,
	click on the IP address and click 'Remove' button.
IP Address	Input the starting and ending IP address of IP address you wish
(Accepted IP list)	to deny connections here. IP camera will deny connections
	established from these IP address.
	If you want to specify one IP address only, input the same IP
	address in both field.
	Click 'New' button to add IP address into deny
	IP list.

3-5 Video

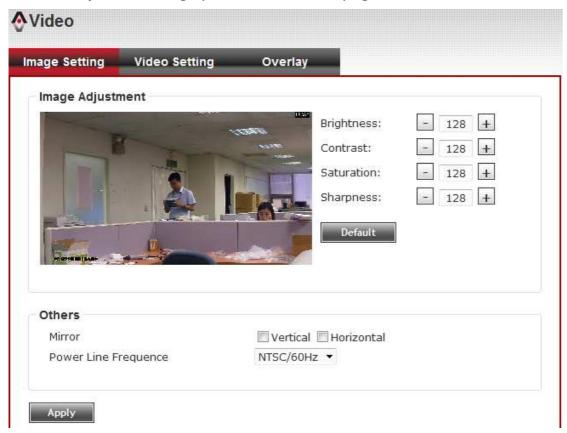
You can adjust the image of the IP camera in this menu.



There are 3 sub-menus in this menu: Image Setting, Video Setting, and Overlay, which can be accessed by tabs on the top: Image Setting, Video Setting and Overlay.

3-5-1 Image Setting

You can adjust the image parameters in this page.

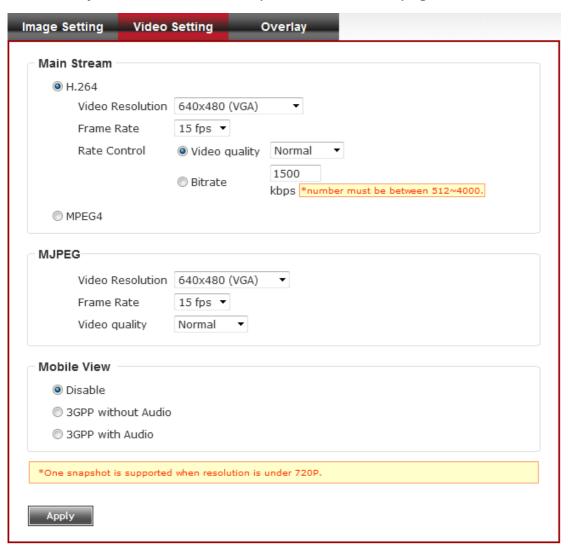


Here are the descriptions of every setup item:

Item	Description
Brightness /	Control the image parameters. Click ' - ' to decrease value, or click ' +
Contrast /	' to increase value. You can also input the value in the field directly.
Saturation /	
Sharpness	
Default	Set all above values to default value '128'.
Mirror	Check 'Vertical' or 'Horizontal' box to flip the image vertically or
	horizontally, this will help to correct the orientation of image when
	IP camera is hanged bottom-up by camera holder.
	You can click both 'Vertical' and 'Horizontal' box at the same time.
Power Line	Select the frequency of power line of the place you're using this IP
Frequency	camera. This will help to reduce the flicker of certain lights in the
	image.

3-5-2 Video Setting

You can adjust the video transfer parameters in this page.



1	here are the descriptions of every setup item.	
Item	Description	
H.264	Select the compression of main stream: H.264 / MPEG4.	
/MPEG4		
Video	Select video resolution.	
Resolution	- H.264: 2048x1536 (QXGA) / 1920x1080 (1080p) 1280x960 (960p) / 1280x720 (720p) 720x480 (D1) / 640x480 (VGA) 320x240 (QVGA) - MPEG4: 1920x1080 (1080p) / 1280x960 (960p) 1280x720 (720p) / 720x480 (D1) 640x480 (VGA) / 320x240 (QVGA)	

	MJPEG: 1280x720 (720p) / 720x480 (D1) 640x480 (VGA) / 320x240 (QVGA) Please note that some video resolution is not available when video encoder is 'MPEG4'. Please note that MJPEG is not available when the resolution of "H.264" & "MPEG4" is higher than 1280 x 720 (720p). When network speed is insufficient, select a lower video resolution will help.
Frame Rate	Select video frame rate. Please note that some frame rate is not available when video encoder is 'H.264'. When network speed is insufficient, select a lower frame rate will help.
Rate Control	 Select video bit rate. You can control bit rate by both 'Video quality' and 'Bitrate': Video quality: There are 5 levels of video quality, select 'very high' to improve video quality but consumes more network bandwidth, and select 'very low' will decrease video quality and consumes less network bandwidth. Bitrate: Input video's bit rate directly. It must an integer between 512 and 4000. Higher bit rate provides better video quality, but consumes more network bandwidth.

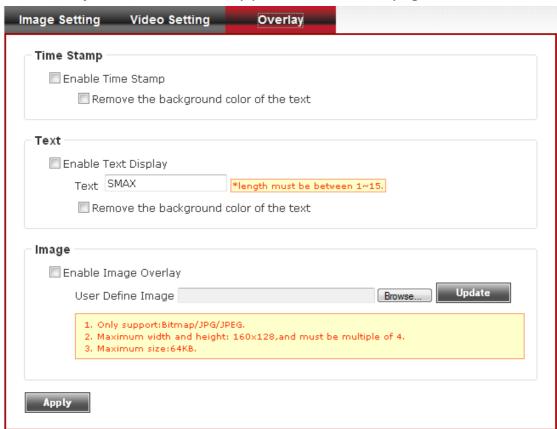
When you finish with above settings, click 'Apply' button to save changes.

Note:

Mobile View is enabled to remote monitor by I-Phone or Android Google phone APP.

3-5-3 Overlay Setting

You can adjust the video overlay parameters in this page.



Item	Description
Enable Time	Check this box to enable overlaying time stamp on video.
Stamp	
Remove the	Check this box to remove time stamp's background color. You
background color	may find this will help the readability of time stamp text in
of the text	some cases.
(for Time Stamp)	
Enable Text	Check this box to display certain text on video, this will help
Display	when you need to identify certain IP camera when you have a
	lot of IP cameras.
	Please input the text in 'Text' field. You can input up to 15
	characters.
Remove the	Check this box to remove custom text's background color. You
background color	may find this will help the readability of text in some cases.
of the text (Text)	

Enable Image Overlay

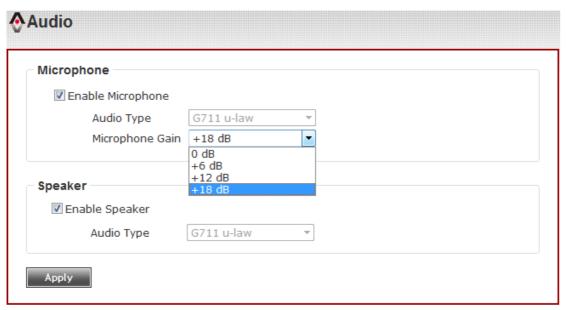
Check this box to overlay a specific image on video, so you can show certain text / picture on the video and help people to identify this IP camera.

Click 'Browse' button to pick a picture on your computer, then click 'Update' button to use the picture. Please note that there are certain restrictions:

- Select .bmp / .jpg / .jpeg image files only.
- Image's resolution should be less than 160 x 128, and can be divided by 4.
- Do not upload image files that size is greater than 64KB.

3-6 Audio

You can adjust audio input / output parameters here.



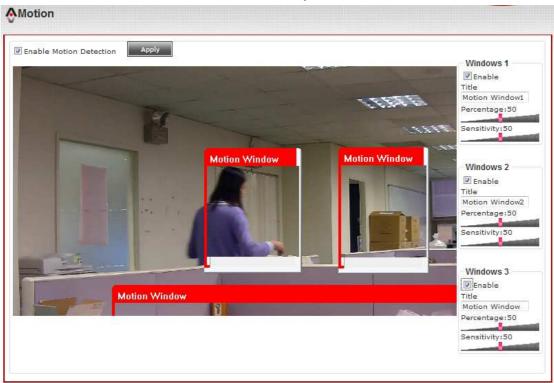
Here are the descriptions of every setup item:

Item	Description
Enable	Check this box to enable microphone. If you don't want to hear
Microphone	voice from IP camera, you can uncheck this box to disable it.
Audio Type	The format is fixed as G.711
(Microphone)	
Microphone	If the voice received by microphone is too loud or silent, you
Gain	can use this function to improve voice volume, so you can hear
	voice from IP camera more clearly.
	- Select 0 dB and IP camera will do nothing on the voice;
	- Select +6 dB to +18 dB to amplify the voice.
Enable Speaker	Check this box to enable speaker. If you don't want people at IP
(Speaker)	camera to hear you, you can uncheck this box to disable it.
Audio Type	The format is fixed as G.711
(Speaker)	

3-7 Motion

This IP camera is capable to detect object's motion, so IP camera will only record when there's motion and save disk storage space.

Motion detection is performed by examine the movement of objects in rectangular motion detection area. You can define up to 3 motion detection areas.



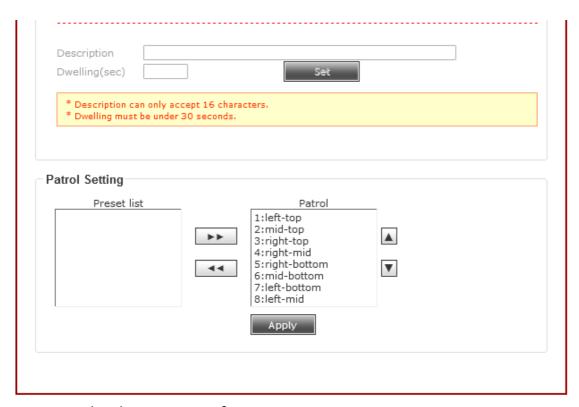
Tiere are the descriptions of every setup item.	
Item	Description
Enable Motion	Check this box to enable motion detection.
Detection	
Enable	Check this box to enable this motion detection window. You can
(Window 1 to	select window 1 to 3 to enable up to 3 motion detection
Window 3)	windows. When a motion detection window is enabled, a
	rectangular will appear on camera's view, with its title on the
	top.
	- To move / resize a motion detection window:
	Motion Window

	Moyar Haa tha maysa ta drag tha title tayt	
	- Move: Use the mouse to drag the title text.	
	- Resize: Use the mouse the drag the four corners	
	(upper-left/right, lower-left/right) to resize it. If you only want	
	to adjust width or height, drag the four sidebars (top, bottom,	
	left, and right).	
Title	Input characters in title field to change motion detection area's	
(Window 1 to	title text so you can identify it.	
Window 3)	Please note that you have to click 'Apply' button and the text will	
	change.	
Percentage	Select the percentage of pixel change that will trigger motion	
	detection alert. Select a lower percentage and you can detect	
	tiny changes in motion detection area.	
Sensitivity	Select the sensitivity level that will trigger motion detection	
	alert. Select a higher sensitivity and you can detect tiny changes	
	in motion detection area.	

3-8 PTZ Control

In this page, you can setup PTZ Control settings like auto pan-tilt control and patrol.





Item	Description
Pan-tilt control	Control pan-tilt of camera by click up, down, left, right and upper-left/right, lower-left/right.
Pan Speed	Adjust the pan speed. It should be an integer between 1 (slower) to 10 (faster).
Tilt speed	Adjust the tilt speed. It should be an integer between 1 (slower) to 10 (faster).
Set home	Click this button to set current position as home position.
Calibration	To calibration its direction and focus to its "Factory Default Position", to ensure its preset position will be located at the correct position without deviation after a period of usage.
Preset list	This IP camera supports up to 8 preset points. You can move camera to preset point, and camera will stop there for a specific amount of time. You can specify up to 8 preset points.

	To set a preset point:
	 Move camera to the preset point you wish to set by pan-tilt control.
	 Select a preset point from the list (1 to 8)
	 Input a text description for this preset point (this is optional, up to 16 characters).
	 Input dwelling time (0 to 30**, seconds)
	 Click 'Set' to save current preset point.
	You can click 'GO Preset' button to move camera to preset
	point, or click 'Remove' to clear this preset point setting.
Patrol Setting	When you have 2 or more preset points, you can make
	camera to move between these points, this function is
	called as 'Patrol'.
	To configure patrol, please setup preset points first, then select preset points from 'Preset list' and click
	button to add it to 'Patrol' list; to remove a preset point
	from patrol list, select it in patrol list and click
	button.
	You can also adjust the order or preset points in patrol list:
	select a preset point and click 🔺 or 💌 button.

When you finish, click 'Apply' button.

3-9 Event

When there's an event, you can use this setup page to define what IP camera should do, like send an Email or trigger digital output to activate external alarm.



There are three setup pages:



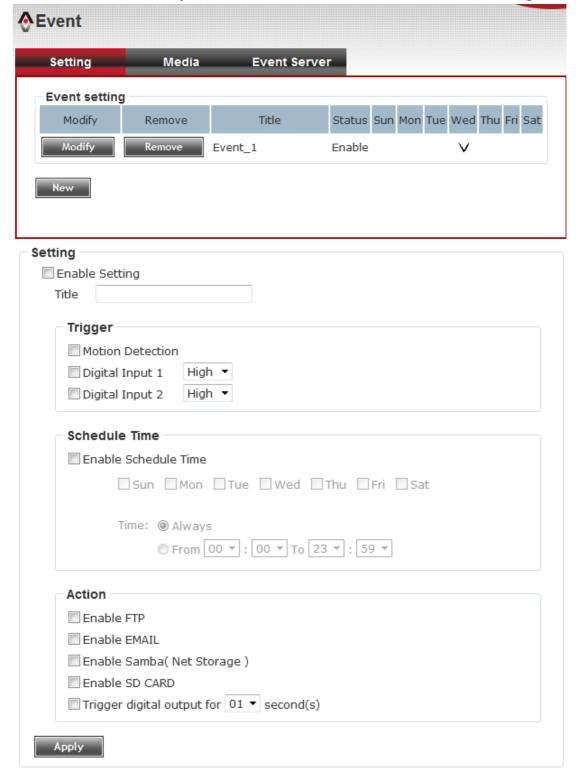
- 1. Setting: Define a new event and manage events.
- 2. Media: Define what kind of media file should be saved on designate media.
- 3. Event Server: Define the details of remote server.

Please refer to following chapters for detailed instructions.

3-9-1 Settings

This page lists all existing events. You can click 'Modify' button to edit an existing event, or 'Remove' to delete an existing event.

To create a new even, just click "New" button to add an Event setting.



To add a new event, click 'New' button and the descriptions of every setup item is listed below:

Item	Description
Enable Setting	Check this box to enable this event. If you just want to disable
	this event temporarily, you can uncheck this box to keep this
	event and disabling while not deleting it.
Title	Input any description text for this event so you can identify it
	quickly. You can use alphabets, numbers, and symbols
	include: !\$@^_~ (no spaces allowed).
Motion	Check this box and this event will be activated when one of
Detection	motion detection window detects motion.
Digital Input	Check this box and this event will be activated when digital input
1~2	1 or 2's input signal is high or low (select from dropdown list).
Enable	Check this box and this event will be activated when designated
Schedule Time	weekday and time is reached.
	You also have to check weekday box, and select time from
	dropdown list. If you select 'Always' as time, this event will be
	activated during all the day.
Enable FTP	Check this box and IP camera will save file on FTP server (refer to
	'FTP Server' setting in 'Event Server' tab) when this event is
	activated.
Enable EMAIL	Check this box and IP camera will send an Email to designated
	recipient address (refer to 'SMTP Server' setting in 'Event Server'
	tab) when this event is activated.
Enable Samba	Check this box and IP camera will save file on samba server (refer
(Net Storage)	to 'Samba Server' setting in 'Event Server' tab) when this event
	is activated.
Enable SD	Check this box and IP camera will save file on SD card when this
CARD	event is activated. A working SD card must be inserted into IP
	camera in advance.
Trigger digital	Check this box and IP camera will trigger digital out to 'high'
output for xx	state for xx seconds when this event is activated, where 'xx'
second(s).	seconds must be defined by the dropdown list.

3-9-2 Media

You can define what kind of media file should be saved on designated media.



Here are the descriptions of every setup item:

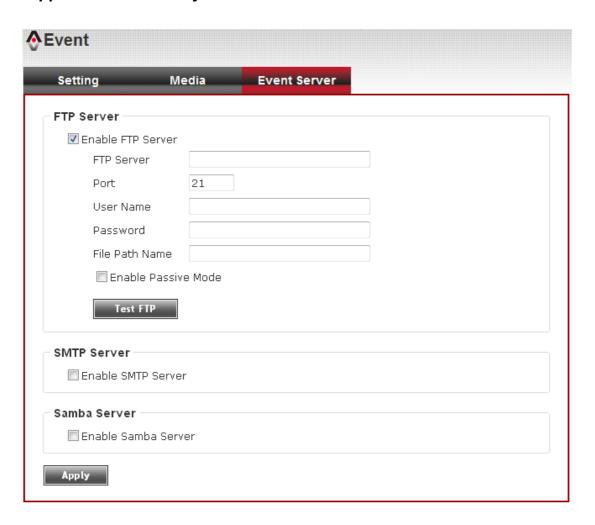
Item	Description
One Snapshot	Save a picture file when event is triggered.
	Please note that this function will be enabled while "MJPEG
	codec" is appeared on the "Video Setting". (Please refer to
	section "3-5-2 Video Setting".
H.264 Video	Save a H.264 video clip. You can also select the recording
	length before and / or after the time when event is triggered in
	'Pre Event' and 'Post' Event'.
	For example, if you set 'Pre Event' to '10' and 'Post Event' to 5',
	and an event is triggered at 14:10:30, then the video file will
	be 15 seconds long, starting from 14:10:20 to 14:10:35.
	Tips: You may want to know what happened before event is
	triggered in many cases, especially when object is outside of
	motion detection window.
1	Note: If the "Pre Event" set to "0" second, the "Post Event"
	cannot set to "0" second.

When you finish with above settings, click 'Apply' button to save changes.

3-9-3 Event Server

You can define the details of remote media server: FTP (File), SMTP (Email), and Samba (File).

A Samba server can be any computer running windows operating system with network neighbor function enabled. Many stand-alone network file server also support samba server function.



Item	Description	
Enable FTP	Check this box to enable FTP server upload.	
Server		
	☑ Enable FTP Server	
	FTP Server	
	Port 21	
	User Name	
	Password	
	File Path Name	
	Enable Passive Mode	
	Test FTP	
	FTP Server: Input FTP server's IP address or hostname.	
	Port: Input FTP server's port number. In most cases it should be	
	default value '21'.	
	User Name: Input FTP server's username.	
	Descripted Input ETD comion's possitions	
	Password: Input FTP server's password.	
	Eilo Dath Name: Input the nath where you want to save file on ETD	
	File Path Name: Input the path where you want to save file on FTP server, like 'upload/record'. If you want to save file on this FTP user's home directory you can leave this field blank	
	home directory, you can leave this field blank.	
	Enable Passive Mode: Check this box to force IP camera to	
	communicate with FTP server in passive mode (Some FTP Server may	
	only work when you check this box, while others don't).	
	only work when you encek this box, while others don't j.	
	Test FTP: Click this button to test FTP server settings above	
	immediately.	

SMTP Server

Check this box to enable Email send.

▼ Enable SMTP Server	
SMTP Server	
Port	25
Sender Email Address	
Receiver #1 Email Address	
Receiver #2 Email Address	
Subject	SIB7000
Authentication	
User Name	
Password	
Requires SSL Encryption	
STARTTLS	
Test SMTP	

SMTP Server: Input SMTP server's IP address or hostname.

Port: Input SMTP server's port number. In most cases it should be default value '25'.

Sender Email Address: Input the sender's email address that will appear in the Email send by IP camera. This will help you to identify the Email sent by this IP camera, and may help when you have anti-spam software installed (you can set this Email address to 'White List' in your anti-spam software)

Receiver #1 Email Address: Input primary recipient's Email address. This field is required.

Receiver #2 Email Address: Input backup recipient's Email address. This field is optional.

Subject: Input Email title that will appear in the Email send by IP camera. This will help you to identify the Email sent by this IP camera.

Authentication: Check this box when authentication is required by the Email server you're using. You also need to input Email server's username and password in corresponding field.

Requires SSL Encryption: If your Email server required SSL encryption, check this box. Please note that some Email server uses different port number than standard port 25 when SSL encryption is used.

STARTTLS: If your Email server required STARTTLS encryption, check this box. Please note that some Email server uses different port number than standard port 25 when STARTTLS encryption is used. Test SMTP: Click this button to test SMTP server settings above immediately.

Samba	Check this box to enable Samba server file upload.	
Server	▼ Enable Samba Server	
	Samba Server Address	
	Path	
	User Name	
	Password	
	Test SMB	
	Samba Server Address: Input Samba server's IP address or	
	hostname.	
	Path: Input the path where you want to save file on Samba server, like 'upload/record'. If you want to save file on this user's home directory, you can leave this field blank. User Name: Input Samba server's username.	
	Password: Input Samba server's password.	
	Test SMB: Click this button to test Samba server settings above immediately.	
	Tips: Some samba server does not have username and password	

When you finish with above settings, click 'Apply' button to save changes.

the file storage space.

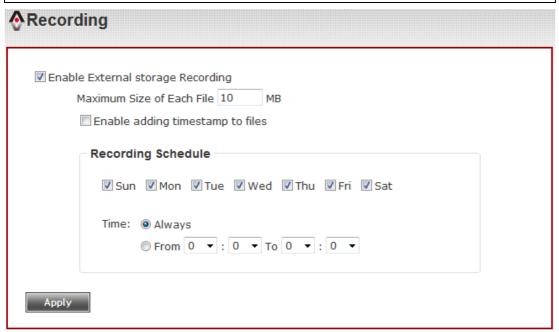
check, you can just input samba server address and path to access

3-10 Recording to SD Card

When a SD card is inserted into IP camera, you can save video files on it.

Note:

- 1. Be sure that the SD Card format should be FAT32. The NTFS format cannot be supported by this camera.
- 2. Unlike motion detection, this function will record video at specified time period on selected weekday(s).

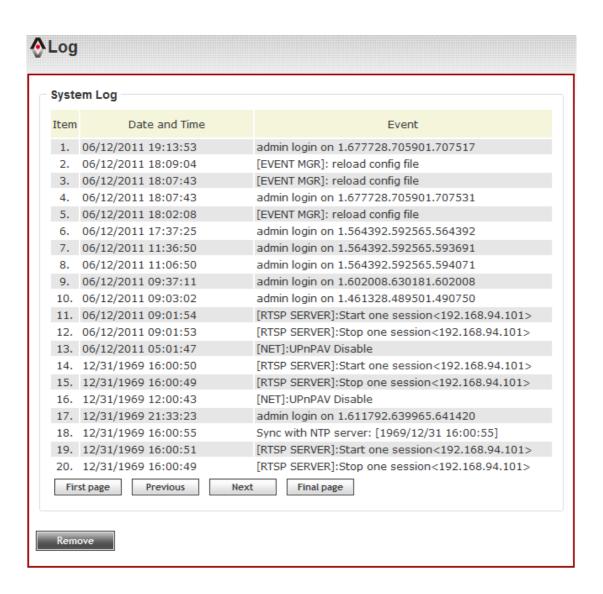


Here are the descriptions of every setup item:

Item	Description
Enable External	Check this box to record video on SD card.
storage Recording	
Maximum Size of	Input the maximum size of every video file from 1MB to
Each File	50MB. IP camera will start a new video file when a recording
	video file reaches the size limit stated here.
Recording	Define the recording schedule. You can check Sun to Sat
Schedule	boxes to represent a weekday, and specify time period in
	'From' and 'To' field. Select 'Always' to record 24 hours in
	selected weekday(s).

3-11 Log

You can check the usage log of IP camera here.



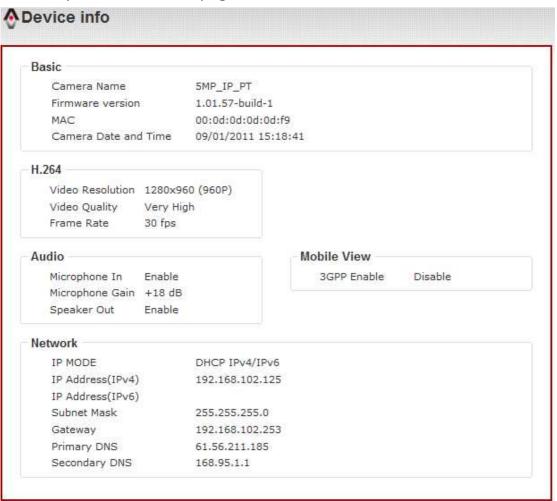
In this page, you can click:

- 1. First page / Final page: Jump to first / final page of log.
- 2. Previous / Next: Jump to previous or next page of log.
- 3. Remove: Clear log. You'll be prompted for confirmation.

3-12 Device Info

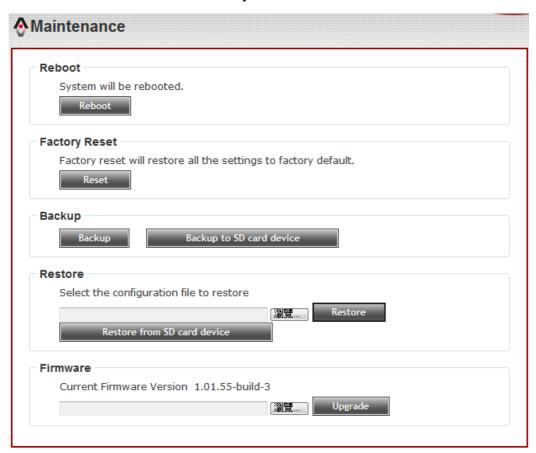
You can check the information and network settings of this IP camera. These information are very useful when you need to repair or fix the problem of this IP camera.

An example of device info page look like this:



3-13 Maintenance

You can do some maintenance job about this IP camera here.



Item	Description
Reboot	Click this button to reboot the IP camera. This function is useful
	when you find IP camera is not working properly.
Reset	Clear all settings of IP camera and reset to factory default setting.
Backup	Backup IP camera's setting and save it on your computer.
Backup to SD	Backup IP camera's setting and save it on SD card. A SD card
card device	must be inserted into SD card slot when you click this button, or
	you'll receive an error message.
Restore	Restore a previously-saved configuration file saved on your
	computer. Click 'Browse' button to select a file on your computer
	first, then click 'Restore' button.
Restore from	Restore IP camera's configuration which is previously-saved on
SD card device	SD card.
Upgrade	Upgrade IP camera's firmware. Click 'Browse' button to select a
	firmware image file on your computer first, then click 'Upgrade'
	button.

3-14 Language

You can change the display language of web interface.

Click 'Language' button and select one language. More languages may available in latest firmware file.



Chapter IV Troubleshooting

Please don't panic when you found this IP Camera is not working properly. Before you send this IP Camera back to us, you can do some simple checks to save your time:

Problem description	Possible solution(s)
Can't connect to IP	1) Please check the IP address of IP Camera again.
Camera	
	2) Please make sure the network cable is correctly
	connected to your local area network.
	3) Please make sure power cable is correctly
	connected to IP Camera.
	4) Please make sure IP Camera is switched on (the LED
	lights on IP Camera will light up).
No IP Camera found	1) 'Auto search' function only works on IP Cameras
	located on local area network.
No image	1) If the place where IP camera is installed is too dark,
	try to add some lights when possible.
	2) Check if there's anything covering the lens.
Image is fuzzy	1) Check the lens and make sure it's clean. If it's dirty,
	use cloth with clean water to clean it, do not use
	alcohol or other chemical-based solution.
	2) Adjust focus ring until image looks clear.