DIGITUS®

ADVANCED NETWORK SURVEILLANCE DOME CAMERA

User Manual

Please read instructions thoroughly before operation and retain it for future reference.

IMPORTANT SAFEGUARD

RoHS conform

All lead-free products offered by the company comply with the requirements of the European law on the Restriction of Hazardous Substances (RoHS) directive, which means our manufacture processes and products are strictly "lead-free" and without the hazardous substances cited in the directive.

The crossed-out wheeled bin mark symbolizes that within the European Union the product must be collected separately at the product end-of-life. This applies to your product and any peripherals marked with this symbol. Do not dispose of these products as unsorted municipal waste. Contact your local dealer for procedures for recycling this equipment.

Disclaimer

We reserve the right to revise or remove any content in this manual at any time. We do not warrant or assume any legal liability or responsibility for the accuracy, completeness, or usefulness of this manual. The content of this manual is subject to change without notice.

Grounding

This is a Safety Class 1 Product (provided with a protective earthing ground incorporated in the power cord). The mains plug shall only be inserted in a socket outlet provided with a protective earth contact. Any interruption of the protective conductor inside or outside of the instrument is likely to make the instrument dangerous. Intentional interruption is prohibited.

Water & Moisture

Do not expose this product to dripping or splashing and that no objects filled with liquids, such as vases, shall be placed on the product.

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GPL

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The GPL Code used in this product is released without warranty and is subject to the copyright of the corresponding author.

Further source codes which are subject to the GPL-licenses are available upon request.

We are pleased to provide our modifications to the Linux Kernel, as well as a few new commands, and some tools to get you into the code. The codes are provided on the FTP site, and please download them from the following site or you can refer to your distributor:

Version

Firmware: 1053-1015-1021-1005-C504
Video Viewer Software: 0156

TABLE OF CONTENTS

1. OVERVIEW

1.1 Product Features

- Powerful mobile surveillance supporting iPhone, BlackBerry, Windows Mobile & Symbian
- Smart Zoom: zoom in on the object that triggered the motion detection
- Excellent low lux performance for dark environments
- Low-latency video streaming with H.264 compression format
- Motion detection and alarm notification functions

1.2 Package Content

☐ Network camera
☐ Installation Guide
☐ RJ45 cable extender adapter
☐ CD-ROM disc (including user manuals & CMS software "Video Viewer")

1.3 Dimensions
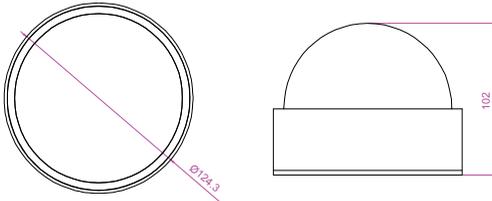
1.4 Cable Overview
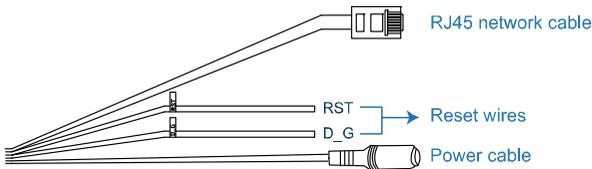
CABLE	DESCRIPTION
RJ45 network cable	Connect it to the supplied RJ45 cable extender adapter for cable extension, and prepare another RJ45 network cable with suitable length for your connection.
Reset wires	Remove the insulating coating of these two wires, and twist them together to reset default. This will reset all parameters, including the IP address to factory default settings. **Note:** Disconnect power before twisting these two wires together, and connect to power again for reset default.
Power cable	Connect to DC12V power supply. **Note:** The power adapter is optional.

2. BEFORE USING YOUR NETWORK CAMERA

Before using the network camera, make sure:

1) You have installed the supplied CMS software, "Video Viewer".
2) You have configured the network settings, and the network connection is fine.

If not, please refer to your camera installation guide.

This network camera can be accessed via our supplied CMS software "Video Viewer", the web browser "Microsoft Internet Explorer" or "Mozilla Firefox", and smart phones depending on different using situations.

■ To check or configure up to 16 surveillance devices simultaneously with the record function, please use "Video Viewer".
For details about using Video Viewer, please refer to "3. ACCESSING THE CAMERA VIA VIDEO VIEWER" at page 3, and "4. SYSTEM CONFIGURATION" at page 11.

■ To check or configure this network camera only, it's recommended to use the web browser "Microsoft Internet Explorer" or "Mozilla Firefox".
For details about using the web browser, please refer to "5. ACCESSING THE CAMERA VIA YOUR WEB BROWSER" at page 22.
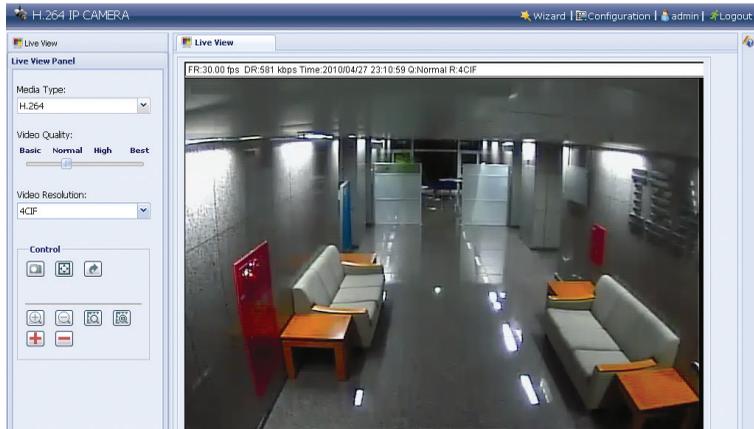
3. ACCESSING THE CAMERA VIA VIDEO VIEWER

3.1 Accessing the camera

Step1: Double-click " " on your PC desktop to open Video Viewer. By defaults, the "Address Book" panel will be displayed on the right side of the control panel.

Step2: Click " " to select the IP address of the camera you intend to connect, and double-click it.

Step3: The live view is displayed in the Video Viewer.

3.2 Control panel overview

Two control panels are available and can be switched depending on your using habit.

3.2.1 Simplified Version (Default)

	Address Book		Record		PTZ Control
	Miscellaneous Control		Snapshot		
	Log		Information		

Event Notification & Quick Checklist

2010/01/29, 17:33:22

IPC

	Version
	Minimize
	Full Function Display Switch
	Close Program
	180° Counterclockwise Image Rotation
	Snapshot
	Infomation

	Close All Display Views
	Close Current View
	Original Size
	Full Screen
	Display Mode Switch

3.2.2 Full Function Version

180° Counterclockwise Image Rotation
Snapshot
Infomation

Event Notification & Quick Checklist

Close Program
Simplified Display Switch
Minimize
Version

Setting
PTZ control
Available Disk Capacity

Close All Display Views	Display View: 1-Cut
Close Current View	Display View: 4-Cut
Original Size	Display View: 6-Cut
Full Screen	Display View: 9-Cut
	Display View: 13-Cut
	Display View: 16-Cut

E-Map
Record
Snapshot
Miscellaneous Control
Log

3.2.3 Main Button Overview

Button		Function	Description
Simplified	Full Function		
		Address Book	Click to show the predefined IP address(es). You can add, remove or search the IP address to log in the DVR remotely.
		Miscellaneous Control	**Remote Config** — Click to go to the detailed system configuration. For details, please refer to "4. SYSTEM CONFIGURATION" at page 11.
			Record Setting — Click to go to the detailed record setting. For details, please refer to "3.3.1 Record" at page 5.
			Custom Setting — Click to choose the language of this program, or set the password when activating this program. The changes will take effect when this program is closed and executed again.
		Log	Click to view all event and recording logs, search the desired log(s) by date, or playback the recording of the selected log.
/	/	Record / Record Stop	Click to start / stop the manual recording. The record button will be disabled when the reserved disk capacity set in "Record Setting" is larger than the current disk capacity. For details, please refer to "3.3.1 Record" at page 5.
		Snapshot	Click to take a snapshot of the current view. The snapshot will be saved in the path you specified in "Record Setting".
		Information	Click to show the current network connection details.
		PTZ Control	Click to enter the PTZ control panel for the smart zoom function. For details, please refer to "3.3.5 Smart Zoom' at page 10.

3.3 Frequently-used functions

3.3.1 Record

To record remotely, click " ![icon]" or " ![icon] " → " ![icon] " to go to the "Record Setting" page.
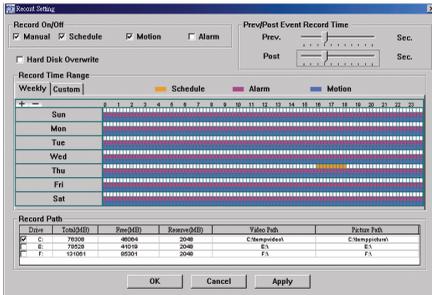
In the "Record Setting" page, you can set the following items:

‧ Record type
‧ Pre- / post-event record time (0~10 seconds)
‧ Record time setting
‧ Record path

Note: The record function will be disabled when the reserved disk capacity in "Reserved(MB)" is larger than the current disk capacity in "Free(MB)".

When "Manual" is checked, click " ![icon] " or " ![icon] " on the main control panel to start the manual recording immediately, and the recordings will be saved in the location specified in "Record Path".

When "Motion" and / or "Alarm" are checked, the recording function will be enabled for any motion or alarm event, and the recordings will be saved in the location specified in "Record Path".

3.3.2 Playback

To play a recording, click " ![icon] " or " ![icon] ", and select the "Record" tab. A list of all the recordings will be shown by defaults, and you can also sort out the logs you want to speed up the search time.
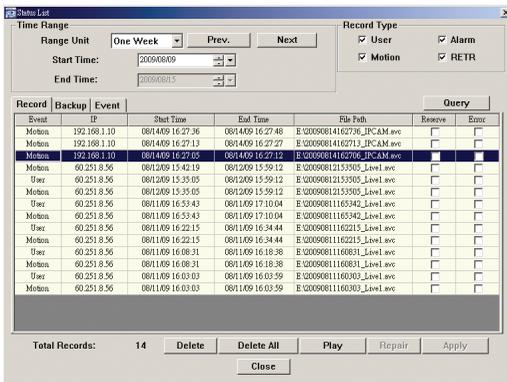
3.3.3 Firmware Upgrade

This function is used when users need to upgrade the network camera for function scalability.

Note: Before using this function, make sure you have the correct upgrade files provided by your installer or distributor.

Step1: Click "📖", and select the IP address of your network camera in the address book.

Step2: Click "🔧" to show the upgrade page, "Update Server".
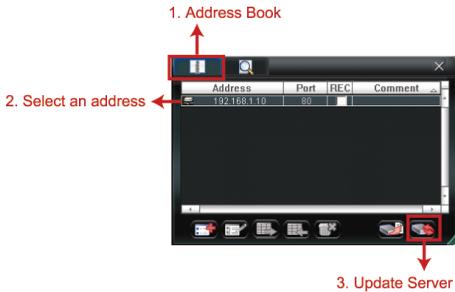
Step3: Click "Add" to browse to the upgrade files.
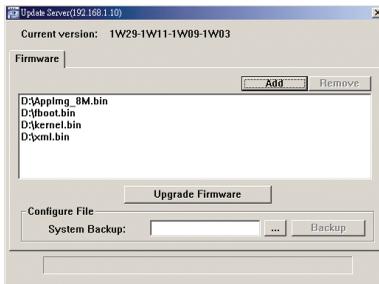
Step4: Click "Upgrade Firmware" to start firmware upgrade.

Note: It takes a few minutes to finish the upgrade process. Do not disconnect the power during firmware upgrade, or the upgrade may be failed. The camera will reboot after the upgrade.

Step5: Select the IP address of the camera and click "🔧" again to check if the firmware is upgraded.

3.3.4 E-Map

Video Viewer is also a Central Management System (CMS) software, which allows network device control & management for up to 16 devices simultaneously.

Note: Before using this function, make sure Video Viewer is connected to all the devices (up to 16) you want to monitor.

E-Map is **ONLY** available when the control panel is switch to the full function version.

<u>How to Add an E-Map Group</u>

STEP1: In the simplified version, click "🔳" to switch the control panel to the full function version, and click "⚫" to enter the E-Map page as follows.

Note: To know where the buttons are, please refer to "3.2.1 Simplified Version (Default)" at page 3, and "3.2.2 Full Function Version" at page 4.

STEP2: Right-click to show the shortcut menu on the top-left panel, and select the E-Map group you want to add. There are three E-Map groups you can add: Google E-MAP, Single E-MAP, and Building E-MAP.
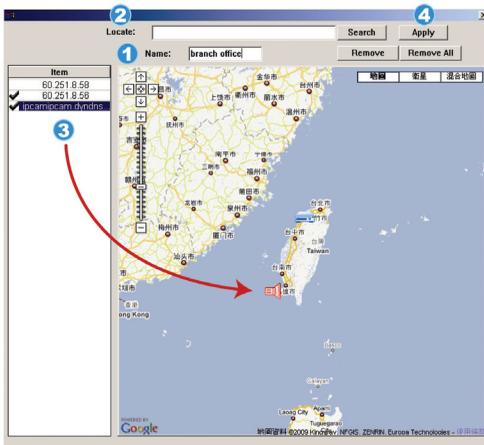
How to add a Google E-Map group:

1. Enter the name of this Google E-Map group.

2. Enter a specific address or landmark, and click "Search".
   OR
   Move to the map and drag to the location you want.

3. Click and drag the IP address to where it's located in the current level.

4. Click "Apply" to save and finish.
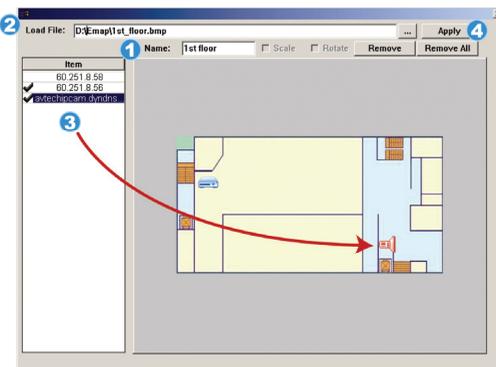
How to add a single E-Map group:

1. Enter the name of this single E-Map group.

2. Click "..." to browse the map file in BMP or JPEG.

3. Click and drag the IP address to where it's located in the current level.

4. Click "Apply" to save and finish.
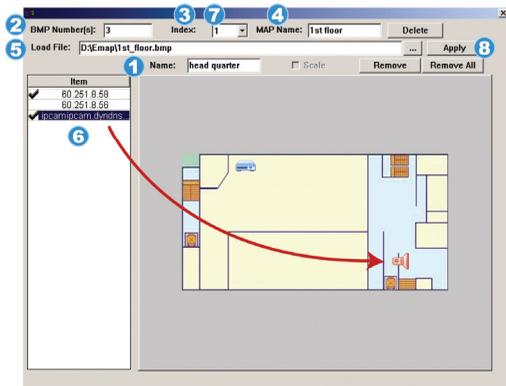
How to add a building E-Map group:

1. Enter the name of this building E-Map group.

2. Enter the total levels of this building.

3. Select the level of the building from the drop-down list.

4. Enter the name of the level.

5. Click "..." to browse the map file in BMP or JPEG.

6. Click and drag the IP address to where it's located in the current level.

7. Go back to STEP 3 to select other level of the building, and repeat from STEP 3 to 6 until the setup for all levels are finished.

8. Click "Apply" to save and finish.

STEP3: When the E-Map group is created, you will see the tree on the top-left panel, showing all the devices you've added to this group.
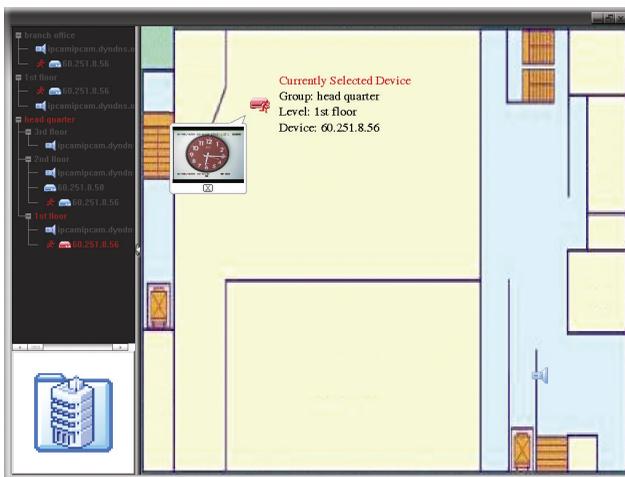
Icon	Description
	The connected device is camera. When it's selected, it will become red.
	The connected device is DVR. When it's selected, it will become red.
	For any motion or alarm event, it will appear on the screen to catch your attention. To know what's happening quickly, double-click the device icon on the E-Map to show the live view.

How to Edit / Remove an Existing E-Map Group

➢ For Google E-Map Group

Right-click on the group name to show the shortcut menu list, and select "Edit E-MAP" or "Remove E-MAP" as needed.

You can also add a single E-Map group (Add Single E-MAP) or Building E-Map group (Add Building E-MAP) into the existing Google E-Map group.
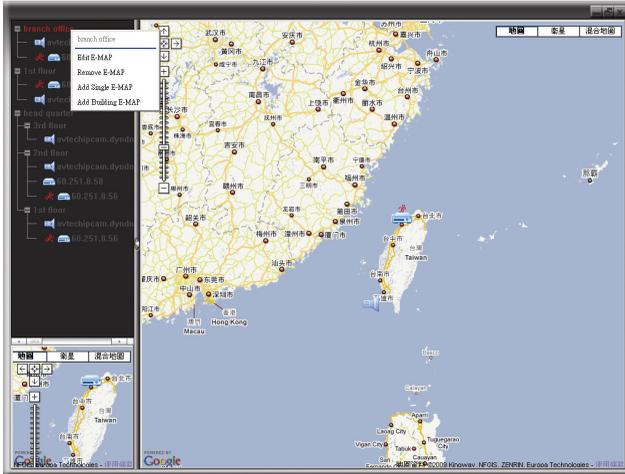
➢ For Single E-Map Group

Right-click on the group name to show the shortcut menu list, and select "Edit E-MAP" or "Remove E-MAP" as needed.
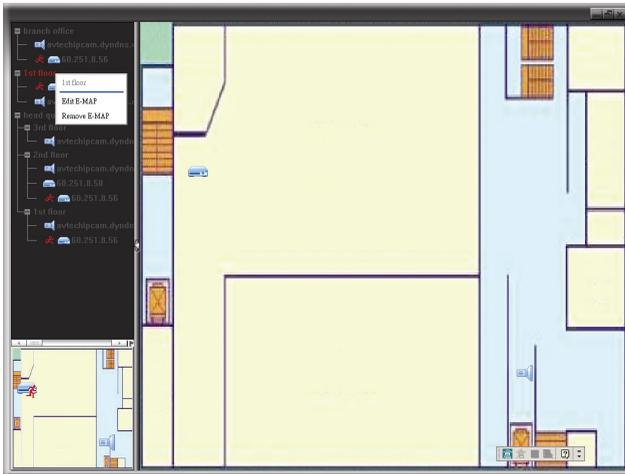
➢ For Building E-Map Group

Right-click on the group name to show the shortcut menu list, and select "Edit Building E-MAP" or "Remove E-MAP" as needed.

3.3.5 Smart Zoom

Click or to display the PTZ control panel as follows.

Simplified Version　　　　　　　　　Full Function Version

Function	Button		Description
	Simplified	**Full Function**	
Smart Zoom			Click to activate the smart zoom function.
			There are three statuses when this function is activated:
			Idle: This function is currently paused and will be resumed after the specified time you set in "4.4 Camera" at page 19.
			Standby: This function is on and ready to work once an object comes into the surveillance area.
			Active: This function starts to zoom in / out on the object coming into the surveillance area.
			Note: The smart zoom status is displayed on the screen only when "OSD: Smart Zoom" is selected in "System". For details, please refer to "4.4.1 System" at page 20.
Zoom In / Out	/	/	Click to zoom in / out on the image.
Max Zoom In / Out	/	/	Click to zoom in on the image to the largest / zoom out on the image to its original size.

4. SYSTEM CONFIGURATION

Before using the network camera, make sure you have installed the supplied software, "Video Viewer", and configure network settings. If not, please refer to your installer or the installation guide.

Note: It's recommended to consult with your installer before changing system configurations.

Note: You need to be the supervisor to enter the system configuration page. If not, please re-log into the camera with the supervisor user level.

Click "▨" and select "▲" to enter the system configuration page. All the system configurations are listed as a tree structure on the left panel as follows.

Main Menu	Sub-menu	What you can do for this function?
General		1. Check the firmware version & MAC address of the camera. 2. Change the camera title.
	Log	Check the system event logs.
	Account	1. Create a new user account with different access privilege. 2. Modify or delete an existing user account.
	OnLineUser	Check the current online user(s).
	Trigger	1. Enable / disable the motion detection. 2. Set the motion detection area. 3. Select the event notification method.
Network		Configure network settings.
	QoS	Limit the data flow for live streaming.
	DDNS	Enter DDNS information when the network type is PPPOE or DHCP.
	SNTP	Synchronize your camera time with the networked computer systems.
	FTP	Enter the FTP information for event notifications when "FTP" is chosen in "General" → "Trigger".
	MAIL	Enter Email information for event notifications when "Email" is chosen in "General" → "Trigger".
	SMS	Enter text messaging information for SMS notifications when "SMS" is chosen in "General" → "Trigger".
	Filter	Choose to permit or block the IP address(es) which can access this camera.
	UPnP	Allow this camera to be detected among devices within the same network area for easy and quick usage.
Video		Set the image resolution, quality and frame rate.
Camera		Adjust the camera parameters if necessary.
	System	Click to set the camera OSD display.
	Color	Adjust the color performance.
	Time	Set daylight saving time and the current time.

4.1 General

In "General", you can check the general information for your network camera, such as the firmware version and MAC address, and also modify the identification name of your camera (up to 15 alphanumeric characters).
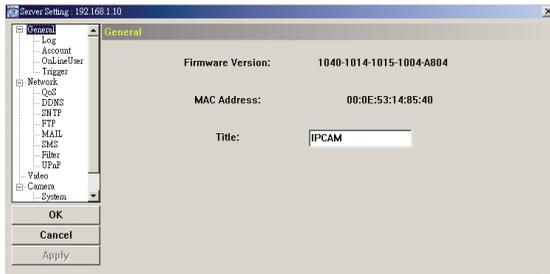
4.1.1 Log

To quickly search the system log you want by event type, click the drop-down list to select the system log type you want to check, and click "Reload" to refresh the list.

To clear all system event logs, click "Clear".
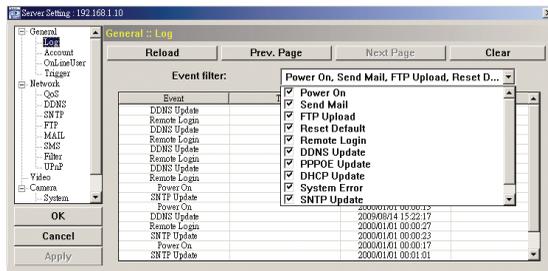
4.1.2 Account

You can create a new account with different user access privilege, or delete or modify an existing account setting.

How to create a new account

Step1: Click "New", and fill in the following columns.
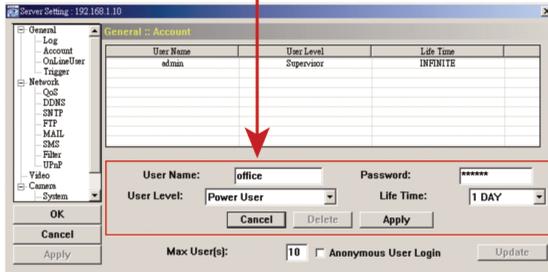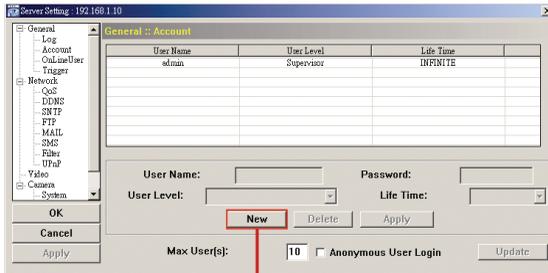
Column	Description
User Name	Set a user name that will be used for camera access. The user name allows up to 16 alphanumeric characters.
Password	Set the password that will be used for remote login. The password allows up to 16 alphanumeric characters.
User Level	Set the security level of an account to give the permission to control different functions. There are four user levels: Supervisor, Power User, Normal User and Guest.
Life Time	Select how long this account is allowed to stay online (1 MIN / 5 MIN / 10 MIN / 1 HOUR / 1 DAY / INFINITE)

Step2: Then, click "Apply" to save your setting and create a new account.

How to modify or delete an existing account

Step1: Select the account you want to modify or delete.

Step2: To modify the account, change the setting directly, and click "Apply".
To remove the account, click "Delete".

Note: It's not allowed to remove an account when there's only one account in the account list.
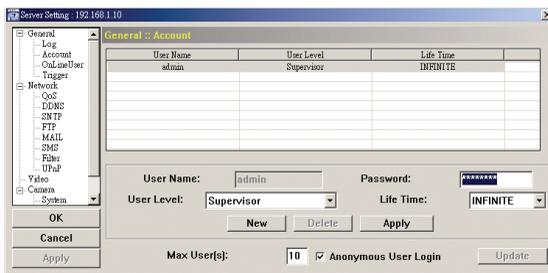
4.1.3 OnLineUser

You can check the current online user(s) with respective online information. To refresh the list, click "Refresh".
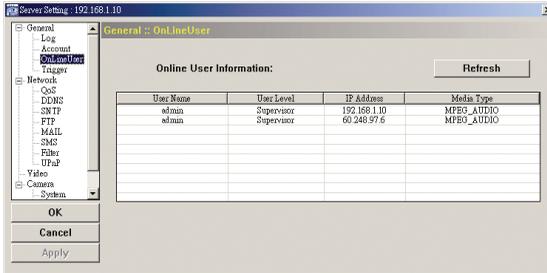
4.1.4 Trigger

You can set the motion or alarm detection and select the notification function.
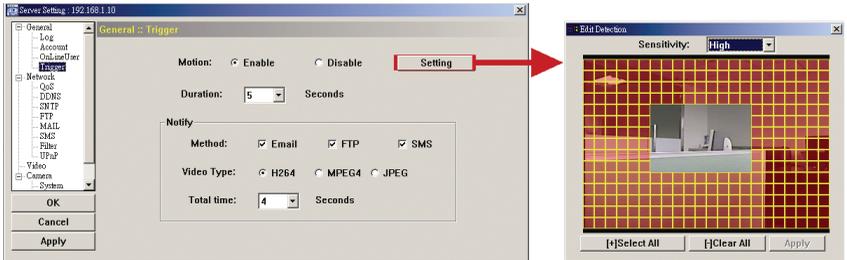
◆ Trigger Setting

In this section, you can select to enable or disable the alarm or motion detection.

Item	Description
Motion	Select to enable or disable the motion detection function.
	・Motion Detection Area Setting
	When "Enable" is selected, click "Setting" to enter the motion detection area setting page as follows:
	Sensitivity:
	Set the detection sensitivity (High / Normal / Low).
	Area Setting:
	Set the motion detection area by selecting the area grids with your mouse. Pink grids represent the area that is not being detected while the transparent grids are the area under detection. You can set multiple areas under detection.
	Click "－" (Clear All) to set the whole area undetected.
	Click "＋" (Select All) to set the whole area under detection.
Duration	Set the duration time for trigger recording (5 / 10 / 20 / 40 seconds).

◆ Notification Setting

In this section, you can select to enable e-mail and/or FTP notification when an alarm or a motion happened.

Item	Description
Method	• **Email** When this option is checked, the network camera will upload the captured video clip to the assigned e-mail address(s) once motion or alarm recording happened. • **FTP** When this option is checked, the network camera will upload the captured video clip to the specified FTP site once motion or alarm recording happened. • **SMS** When this option is checked, the network camera will send a text message to the specified mobile phone number once motion or alarm recording happened. For details, please refer to "4.2.6 SMS" at page 17.
Video Type	Select the file type of the notification files: H264 (video) / MPEG4 (video) / JPEG (image).
Total	Set the record time of the notification video clip (1 ~ 5 seconds).

4.2 Network

You can set the network configuration of the network camera depending on your network type. For details, please refer to your installation guide.
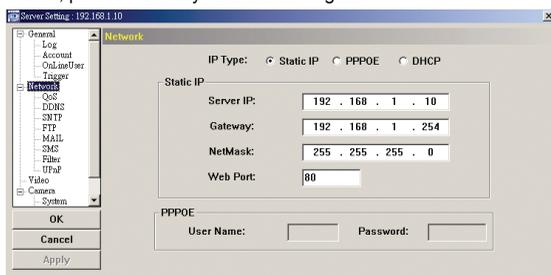
4.2.1 QoS

QoS, Quality of Service, is the ability to control the data flow for real-time streaming. This function is important if your network bandwidth is insufficient and you have other devices to share the network bandwidth.
Check "QoS Enable", and set the max. upload rate from 256 to 10240 kbps.
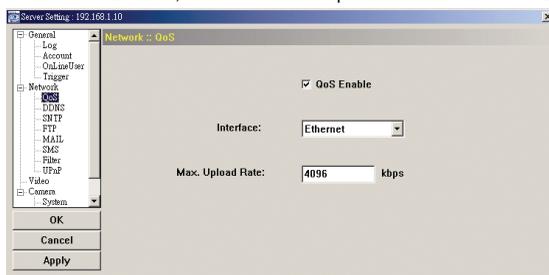
4.2.2 DDNS

Select "On" when the selected network type in "Network" is "PPPOE" or "DHCP". For details, please refer to the installation guide.
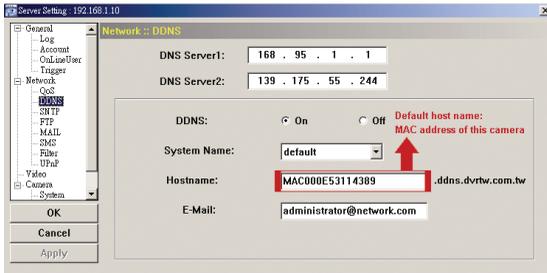
4.2.3 SNTP

SNTP (Simple Network Time Protocol) is used to synchronize your camera time with the networked computer systems.

Function	Description
GMT (Greenwich Mean Time)	Once users choose the time zone, the network camera will adjust the local area time of the system automatically.
Server Name	Simply use the default SNTP server (For example, tock.stdtime.gov.tw) or change to another server with which users are familiar.
Sync. Period	Select "Daily" to synchronize the camera time with the network time every day or "None" to turn off this function.
Sync Server Time	Click and the network camera will synchronize the time with the network time.

4.2.4 FTP

Enter the detailed FTP information and click "Apply" to confirm. The information you set here will be applied when "FTP" is selected in "General" → "Trigger".

4.2.5 MAIL

Enter the detailed e-mail information and click "Apply" to confirm. The information you set here will be applied when "Email" is selected in "General" → "Trigger".

Function	Description
Server	Enter the SMTP server address provided from your e-mail system supplier.
Port	Enter the port number provided from your e-mail system supplier. If this column is left blank, the e-mail server will use port 25 to send e-mails.
Mail From	Enter your name or the title you want the receiver to know where this mail is from.
SSL Encryption	Select "Yes" if your e-mail server is using SSL encryption to protect your e-mail content from unauthorized access.
Verify Password	Some mail servers are required to verify the password. Please enter the "user name" and "password".
Email Address	Add the e-mail address(s) of the assigned recipient(s).

4.2.6 SMS

Note: Before using this function, you need to apply an API ID from the mobile messaging company, Clickatell, and you will be charged starting from the 11th message. For details, please refer to "APPENDIX 2 API ID APPLICATION FOR SMS MESSAGING' at page 27.

Enter the detailed information needed for text messaging, and click "Apply" to confirm. The information you set here will be applied when "SMS" is selected in "General" → "Trigger".
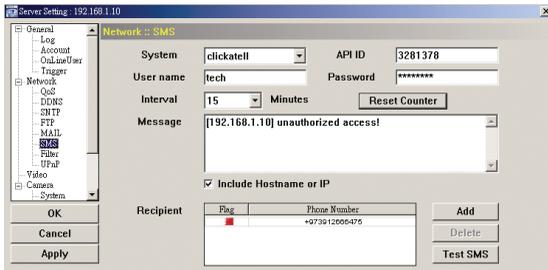
Function	Description
System	The text messaging service provider is Clickatell.
API ID	Enter the API ID you applied from Clickatell.
User name / Password	Enter the account user name and password you created in Clickatell.
Interval	Set the interval time in minutes between two-message sending. The options are 0, 15, 30 & 60. For example, when the interval is set to 15, the SMS will be sent after 15 minutes, 30 minutes, & 45 minutes, etc.
Reset Counter	Click to restart the text messaging, and the SMS will be sent after the specified time interval since you click this button.
Message	Enter the text content (up to 70 characters) you want to send with the text message. To know where the event comes from, check "Include Hostname or IP", and the IP address or host name of the device will be prefixed automatically to the message.

Function	Description
Recipient	Click "Add" to enter the phone number, including the country code, to receive the text message. Five sets of phone numbers are allowed.
Test SMS	To know whether your SMS setting is correct, click this button to immediately send a SMS to your phone.
	Note: This testing is not free and you will be charged for SMS sending base on your local rate.

4.2.7 Filter

Choose to permit or block the IP address(es) which can access this camera.

Function	Description
Error Login Count	Set the maximum count for login failure. When the maximum count is reached, the IP address trying to access the network camera will be locked.
Error Lock Time	Set the lock time in minutes when the maximum count of error login for an IP address is reached.
Echo Request	Select "Non-Block" to allow other users to use the ping command to detect the IP address of your network camera, or "Block" to deny the ping command request.
Filter	Choose to enable (YES) or disable (NO) the filter function.
	If "YES" is selected, choose whether you want to permit (Allow) or block (Deny) the IP address list below. • To add an item to the IP address list, key in the IP address in "IP Address", and click "Add". • To remove an existing item in the IP address list, click the item you want to remove, and click "Delete".
Apply	Click "Apply" on the bottom right corner when any change is made in this menu, or the change will not be recorded in the system.

4.2.8 UPnP

"UPnP" stands for "Universal Plug and Play", which allows devices to connect seamlessly in the home and corporate environments and simplify installation of computer components.

Check "Enable UPnP" to allow the network camera to be detected among devices within the same network area, and set the identification name of the camera in "Friendly name".
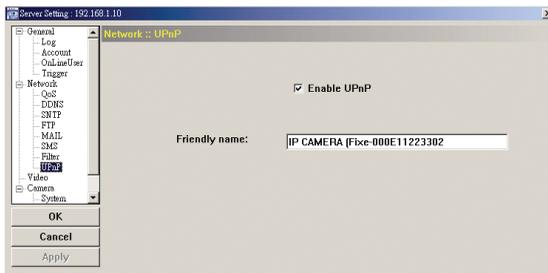
When this function is activated, the other PC within the same domain as this camera will be able to search this camera in "Network Neighbor" with the identification name set in "Friendly name". Double-click it to quickly open the web browser for camera access.

For details about camera access via your web browser, please refer to "5. ACCESSING THE CAMERA VIA YOUR WEB BROWSER" at page 22.

4.3 Video

Set the image resolution, quality and frame rate.

Item	Description
JPEG / MPEG / H264	Select the image resolution and quality. Image Resolution: CIF / 4CIF Image Quality: BEST / HIGH / NORMAL / LOW
Frame Rate	The frame rate allowed to each viewer can be adjusted to adapt to the bandwidth on the network. Set the desired image frequency to the maximum (FULL) or to a specified frame rate (1/2; 1/3; 1/4; 1/5; 1/10; 1/15; 1/20; 1/25; 1/30). The actual frame rate depends on the actual network connection, and may be lower than the specified one.

4.4 Camera

Adjust the camera parameters if necessary.
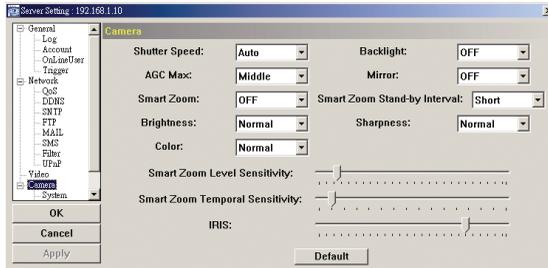
Note: To preview the changes, click "Apply".

Item	Description
Shutter Speed	Shutter Speed is a function that can adjust the duration of the electronic shutter to produce optimum image quality. A slower shutter speed in dark conditions will help to produce a brighter image, but will produce fewer frames per second, which may cause images to get blurry during motion. ● When "Auto" is selected, the iris mode is "AES". ● When a certain speed is selected, the iris mode is switched to "AI", and the image brightness is available to adjust from "IRIS".
AGC Max	It is a function to adjust the amplitude of the signal input according to different light conditions. There are three options available: Low / Middle / High.
Smart Zoom	Select ON to activate / OFF to disable the Smart Zoom function. Before using this function, make sure it's activated here.
Brightness	Brightness helps to adjust the bright level of image based on different light conditions. There are three options available: Dark / Normal / Bright.

Item	Description
Color	Color helps to set the color level of image through the camera. There are three options available: Light / Normal / Colorful.
Backlight	It is the function to adjust the image to compensate for an area that is overpowered by brightness because of excessive light. The image will be properly exposed for clearness. Select to activate (ON) or disable (OFF) this function. Note: This function is available only in the day mode.
Mirror	Mirror is used when you want to rotate the images horizontally based on your installation situation. The options are: ON / OFF.
Smart Zoom Stand-by Interval	Smart Zoom is designed to pause for a certain period of time before the next activation. There are three options available: Short / Normal / Long.
Sharpness	Sharpness enhances the clarity of image detail by adjusting the aperture and sharpening the edges in the pictures. There are three options available: Soft / Normal / Sharp.
Smart Zoom Level Sensitivity	Here sets the sensitivity of comparing two different images when Smart Zoom is activated. The smaller the value, the more the sensitivity (0 ~ 255. The default value is 24).
Smart Zoom Temporal Sensitivity	Here sets the detection frequency regarding how long one object stays in the detection area and triggers the recording when Smart Zoom is activated. The larger the value, the more the sensitivity (0 ~ 15. The default value is 1).
IRIS	IRIS level is used to adjust the amount of light reaching the image sensor for best image results. When the shutter speed is selected to a certain value, the iris mode is switched to "AI". Please adjust the image brightness here when necessary. By pressing and dragging the slider, you can increase the value to brighten the image or decrease the value to darken the image (0 ~ 255. The default value is 178).

4.4.1 System

Set the camera OSD display.
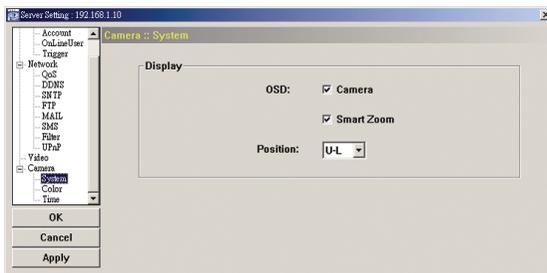
Function	Description
Camera / Smart Zoom	Select "Camera" to display the camera title you set in "General" on the screen. Select "Smart Zoom" to display the current status of Smart Zoom when this function is set to on in "4.4 Camera" at 19, and activated in "▣▣" (PTZ Control). For details, please refer to "3.3.5 Smart Zoom" at page 10.
Position	Set the position where the OSD will be shown: U-L (top-left) / U-R (top-right) / D-L (bottom-left) / D-R (bottom-right).

4.4.2 Color

Adjust the color performance from Brightness, Contract, Hue and Saturation. Click and drag the slider to preview the color change on the live view panel and adjust the image color. Then, click "Apply" to confirm the change.

To restore the default values, click "Default", and click "Apply" to confirm the change.
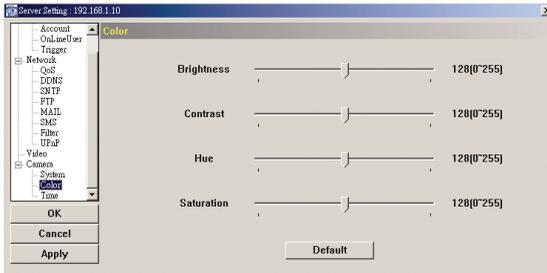
4.4.3 Time

Set daylight saving time and the current time.
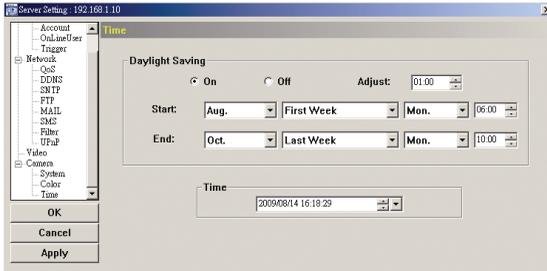
Function	Description
Daylight Saving	Specify whether to use daylight saving time (ON / OFF). If this function is enabled, set the time period (START / END), and adjust the daylight saving time in hours (ADJUST).
Time	Set the current time.

5. ACCESSING THE CAMERA VIA YOUR WEB BROWSER

Users can also access the network camera via a web browser, such as Microsoft Internet Explorer or Mozilla Firefox.

However, the web browser is only available for single device access. If users want to access more than two devices through one interface, it's recommended to use our supplied CMS software, Video Viewer. For details, please refer to "3. ACCESSING THE CAMERA VIA VIDEO VIEWER" at page 3.

Before using the network camera, make sure you have configured the network settings and have the IP address, user name and password used for accessing the camera in hand. If not, please refer to the installation guide.

5.1 Accessing the camera

Step1: Open your web browser, and key in http://*ipaddress:portnum* in the URL address box.

For example, for IP address 60.121.46.236 and port No. 888, please key in "http://60.121.46.236:888" into the URL address box, and press "Enter".

Step2: In the login page, key in the user name and password, and enter the security code from the image below. Then, click "LOGIN".

Step3: The wizard is then starting analyzing your network environment, and shows your network environment.

- To continue setting the password, date & time, and network, click "Next" and follow the step-by-step instructions.
- To skip the wizard and directly access the camera live view, click "Close".
- To directly access the camera live view without starting the wizard for the login next time, check "Do not start wizard at login".
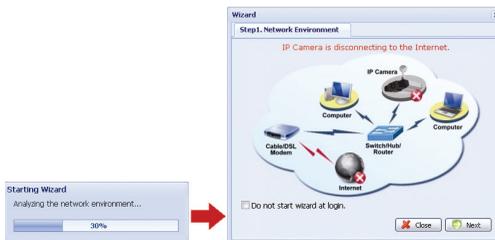

Step3: When the login is successful, the live view is shown similar as follows.

5.2 Control panel overview

5.2.1 Live View Panel

Function	Icon	User Level	Description
Media Type	--	Supervisor / Power User / Normal User / Guest	Select the web transmission format from the drop-down list: H.264 / MPEG-4 / Motion JPEG / QuickTime For users using Mozilla Firefox, only "QuickTime" is selectable. QuickTime is Apple Inc.'s multimedia software. You need to have QuickTime installed in you operating system before selecting "QuickTime". When it is selected, you will be promoted to enter the user name and password to access the camera.
Video Quality	--	Supervisor / Power User / Normal User	Click & drag the slider to select the video quality: Basic / Normal / High / Best.
Video Resolution		Supervisor / Power User / Normal User	Select the video resolution from the drop list: 4CIF / CIF.
Snapshot		Supervisor / Power User / Normal User	Click to take a snapshot for the current view, and a new browser window will be opened to display the captured

Function	Icon	User Level	Description
			image.
Full Screen		Supervisor / Power User / Normal User	Click to display the image in full screen.
Flip		Supervisor / Power User / Normal User	Click to rotate the image 180^0 counterclockwise when necessary.
Zoom-in / out	/	Supervisor / Power User / Normal User	Click to zoom in / out the current image.
Smart Zoom		Supervisor	Click to activate the smart zoom function. For details, please refer to "3.3.5 Smart Zoom" at page 10.
Smart Zoom 10 Minutes		Supervisor	Click to enable consecutive Smart Zoom for 10 minutes and disable the idle mode. Consecutive Smart Zoom will be off after 10 minutes, and auto Smart Zoom will be on instead.
Max. Zoom-in / out	/	Supervisor / Power User / Normal User	Click to zoom in the image to the largest / zoom out the image to its original size.

5.2.2 System Configuration Panel

Click "Configuration" to enter the configuration page.

Note: You need to be the supervisor to enter the system configuration page. If not, please re-log into the camera with the supervisor user level.

The functions are categorized into three menus: Network, Camera and General.

■ For details about "Network", please refer to "4.2 Network" at page 15.

■ For details about "Camera", please refer to "4.4 Camera' at page 19.

■ For details about "General", please refer to "4.1 General" at page 12, and "4.3 Video" at page 19.
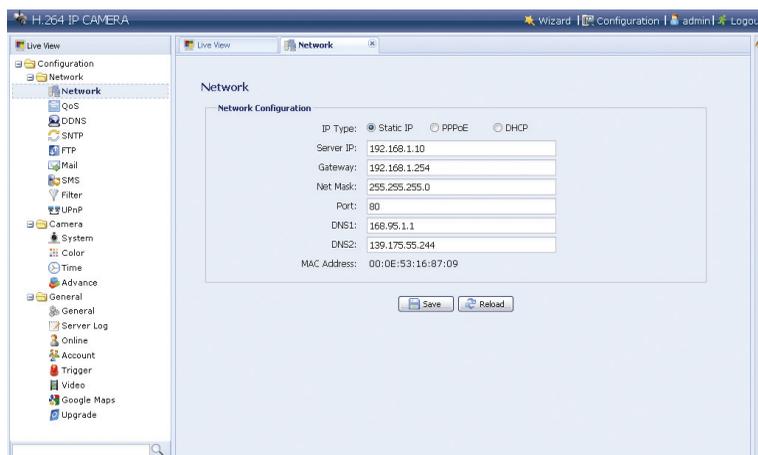
Main Menu	Sub-menu	Reference
Network	Network	→ Remote Config → Network
	QoS	→ Remote Config → Network → QoS
	DDNS	→ Remote Config → Network → DDNS
	SNTP	→ Remote Config → Network → SNTP
	FTP	→ Remote Config → Network → FTP
	Mail	→ Remote Config → Network → MAIL
	SMS	→ Remote Config → Network → SMS
	Filter	→ Remote Config → Network → Filter
	UPnP	→ Remote Config → Network → UPnP
Camera	System	→ Remote Config → System
	Color	→ Remote Config → Color
	Time	→ Remote Config → Time
	Advance	→ Remote Config → Camera
General	General	→ Custom Setting
	Server Log	→ Remote Config → General → Log
	Online	→ Remote Config → General → OnLineUser (Current online users) → Remote Config → General → Account (Anonymous login permission)
	Account	→ Remote Config → General → Account
	Trigger	→ Remote Config → General → Trigger
	Video	→ Remote Config → Video
	Google Maps	It allows you to know where the network camera is. The system will prompt you to apply a Goole Maps Key if your access is denied. Please follow the instructions below when you're denied: 1. Click "Sign up for a Google Maps key" to enter the application page. 2. Check the terms and conditions, and enter the IP address of the network camera. Then, click "Generate API Key". 3. Copy the generated API key, and click "Update Google Maps Key" on the web browser to paste it.
	Upgrade	→ . For details, please refer to "3.3.3 Firmware Upgrade" at page 6.

APPENDIX 1 PRODUCT SPECIFICATIONS

■ Network	
Network Compression	H.264 / MPEG4 / MJPEG
LAN Port	YES
LAN Speed	10/100 Based-T Ethernet
Supported Protocols	DDNS, PPPoE, DHCP, NTP, SNTP, TCP/IP, ICMP, SMTP, FTP, HTTP, RTP, RTSP
Frame Rate	NTSC:30, PAL:25
Number of Online Users	10
Security	Multiple user access levels with password
Web management	(1) Web browsers, such as Internet Explorer, Mozilla FireFox & Google Chrome for single device access, or (2) Free CMS software, Video Viewer, for up to 16 network cameras control simultaneously
■ Camera	
Image Sensor	1/3" HR color CCD
Pixels	771(H) x 492(V) <NTSC> / 753(H) x 582(V) <PAL>
Resolution	520 TVL
Min Illumination	0.15 Lux / F1.4
Shutter Speed	1 / 60 (1/50) to 1 / 100,000 sec.
S/N Ratio	More than 48dB (AGC off)
Lens	f4.0mm ~ f9.0mm
Viewing Angle	75° ~ 36°
Smart Zoom	YES
White Balance	ATW
AGC	Auto
IRIS Mode	AES (default) / AI
IR Shift	Fixed
Power Source (±10%)	DC12V / 2.9W
Current Consumption (±10%)	600mA
Dimensions (mm)**	124.3(Ø) x 102(H)
■ Others	
Mobile Surveillance	iPhone, BlackBerry, Windows Mobile & J2ME
Motion Detection	YES
Alarm and event Notification	FTP / Email / SMS
Minimum Web Browsing Requirements	Pentium 4 CPU 1.3 GHz or higher, or equivalent AMD 256 MB RAM AGP graphics card, Direct Draw, 32MB RAM Windows Vista, XP, Windows 2000 Server, ME, 98, DirectX 9.0 or later Internet Explorer 6.x or later

** The specifications are subject to change without notice.

** Dimensional tolerance: ± 5mm

To allow the camera automatically sending a text message when an event happens, you need to apply an API ID from Clickatell, one mobile messaging company, first.

Note: The SMS messaging is not totally free. You will be charged starting from the 11th message.

Please follow the steps below for application.

Step1: Go to http://www.clickatell.com/login.php. In "New Customers", select "Clickatell Central (API)" from the drop-down list.
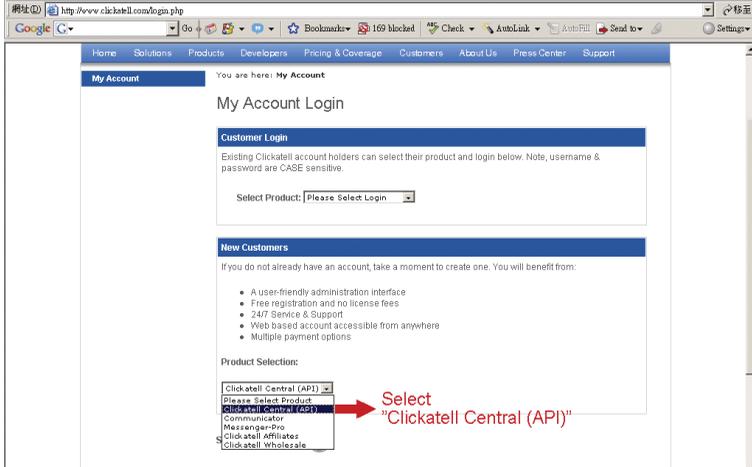
Step2: Fill in your information to create an account, and click "CONTINUE".

Note: Note down the user name and password, and the mobile phone number you specified here for SMS notification setting later.
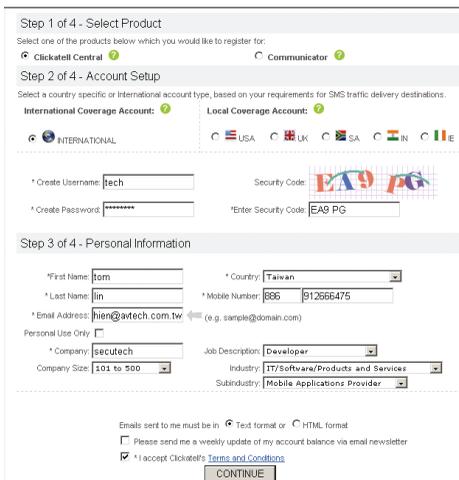
Step2: When the account is created, the system will automatically send an Email to your specified

Email address and ask you to activate your account.

Click the link in the Email to complete account activation, and enter the login page as follows.

Enter the password you set, and click "Login".

My Account Login

Step3: Enter the mobile phone number (including your country code) you want the text message to be sent, and click "SEND ACTIVATION CODE". The system will send an activation code to that number for verification.

Check if you receive a text message from Clickatell.

Step4: Go back to Clickatell, and click the tab "Manage my Products".

Then, select "HTTP" from the drop-down list "My Connections".

Step5: In "Add HTTP API", enter a descriptive name for this service, and make sure the dial prefix is correct and callback type is "HTTP GET". Then, click "Submit".
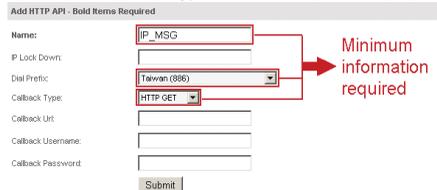
Step5: You will get an API ID as follows.

Note: Note down the API ID for SMS notification setting later.