

FCS-6010

Day/Night 1.3-Megapixel P/T PoE Network Camera



User Manual

Ver1.0

Product name:	Day/Night 1.3-Megapixel P PoE Network Camera (FCS-6010)	/Т
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Manual Revision:	V1.0	Firmware 1.0.0.11
Web site:	www.level1.com	
Made in Taiwan.		

Default Settings

IP Address	DHCP
Username	admin
Password	admin

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1. Before You Use This Product

The use of surveillance devices may be prohibited by law in your country. The Network Camera is not only a high-performance web-ready camera but also can be part of a flexible surveillance system. It is the user's responsibility to ensure that the operation of such devices is legal before installing this unit for its intended use.

It is important to first verify that all contents received are complete according to the list in the "Package Contents" chapter. Take notice of the warnings in "Quick installation guide" before the Network Camera is installed, then carefully read and follow the instructions in the "Installation" chapter to avoid damages due to faulty assembly and installation.

1.1 Package Contents

FCS-6010 Power Adapter Bracket RJ45 Ethernet LAN Cable Quick Installation Guide CD Manual / Utility

2. Network Camera Overview

Product Overview

The LevelOne FCS-6010 with built-in high performance H.264 1.3-Megapixel CMOS sensor delivers high quality images up to 1280x1024 resolution. It is able to broadcast live images to your mobile phone or PDA, and supports 3GPP/ ISMA RSTP format for 3G mobile phones.

Build-in IR LED and ICR for Day/Night

The FCS-6010 features 10 IR illuminators built around the lens for a clear view at night up to 10 meters distance. With the built-in ICR, the FCS-6010 provides a good video quality in both day and night.

Support remote16CH Live View

The FCS-6010 allow you to monitor up to 16 cameras video simultaneously via a Internet Explorer (ActiveX)

1.3-Megapixel with H.264 / MPEG4 / MJPEG Compression

The Level1 FCS-6010 supports triple-mode video compression. In order to achieve the highest video quality and/or faster video transmission, users can select MJPEG, MPEG4 or H.264 compression mode depending on their network settings. In addition, the FCS-6010 provides many advanced features, including PoE, DI/DO, TV out (video), 2-Way audio, Micro-SD/SDHC card slot for local storage and a USB port for an upgrade to wireless connections by optional with WUA-0606 (150Mbps Wireless USB Adapter).



3. Device Appearance Description

3.1 Front & Rear view



MIC
 Status LEDs
 Auto Light Sensor
 IR LEDs
 DC Jack
 TV Out (Video)
 USB Port



8. Micro SD/SDHC Slot 9. Reset Button 10. Ethernet 11. DI/DO 12. Audio In 13. Audio Out

The reset button is used to reset the system or restore the factory default settings. Sometimes resetting the system can return the camera to normal operation. If the problems remain after reset, please restore the factory settings and install it again.

<u>Reboot</u> - Please press and release the indented reset button within 1 second with paper clip or thin object. Wait for the network camera to reboot.

<u>Restore</u> - Please press and hold the reset button until the status of LED turns off. It takes about 10 seconds.

3.2 Micro-SD Card Capacity

The network camera is compliant with Micro-SD/SDHC (Maximum 32GB) cards.

4. Installation

4.1 System Requirements

Operating System Microsoft Windows XP Home Edition SP2 Microsoft Windows XP Professional SP2 Computer **IBM PC/AT Compatible** CPU Pentium 3GHz or faster Memory 1024 MB or more Monitor 1024 x 768 pixels or more, 24-bit True color or better Network Interface 10/100Mbps Network interface card must be installed Web Browser Microsoft Internet Explorer 6.0 SP2 **CD-ROM Drive** It is necessary to read the operating instructions in the provided CD-ROM. Adobe Reader It is necessary to read the operating instructions in the provided CD-ROM.

4.2 Software installation

In this manual, "User" refers to whoever has access to the Network Camera, and "Administrator" refers to the person who can configure the Network Camera and grant user access to the camera. After hardware connection checking, the users can run the Installation Wizard program included in the product CDROM to automatically search for the Network Camera in the Intranet. There may be many Network Cameras in the local network. Users can differentiate the Network Cameras with the serial number. The serial number is printed on the labels on the carton and the bottom of the Network Camera body.

Insert the Installation CD into the CD-ROM driver. Click install and shows the welcome screen. Follow the steps to install the Installation wizard on user's computer.







Do not check the box if user would like to check the hardware installation settings, Otherwise click "Skip the hardware installation" to skip the hardware connection checking, the program will automatically search for the Network Camera in the Intranet.

Click "Start" to continue.

EasyConfigWizard



	settings. If you have more setup wizard to configur	re than one levelone IP camei e each levelone IP camera se	a, you will need to run the parately.	
one	UPnP Name	Model Name	MAC	

levei	If you have only one levelor settings. If you have more t setup wizard to configure e	he IP camera, you can m than one levelone IP can each levelone IP camera	ake changes to the following hera, you will need to run the separately.	X
	UPnP Name	Model Name	MAC	
one	FCS-6010-a999	FCS-6010	00:11:6b:71:11:63	
	Search again			

Select the Network Camera from the survey list and enter the user name and password. The user name and password are assigned as "admin/admin".

		ĺ.
one	Simple Mode C Professional Mode	
	User Name: admin	
	Password:	
	OK Cancel	

4.3 Setting the Network Camera IP address

User can either select simple mode or professional mode for network camera IP setting. If simple mode is selected, the easy configuration program will set up the connection automatically. If professional mode is selected, the user will need to configure the IP manually, The DHCP setting is recommended. If user wants to set IP address manually, please refer to the product user manual.



		x
one	Enter the Static	IP Address to configure IP Camera.
	IP Address	192 . 168 . 50 . 144
	Subnet Mask	255 , 255 , 255 , 0
	Gateway	192 , 168 , 50 , 1
	DNS1	168 . 95 . 1 . 1
	DNS2	61 , 31 , 233 , 1

Please make sure the internet connection is ready then start to do the internet discovery, otherwise click "Skip" to finish the setting.

The default domain name is MAC address; you can also register with your own name on-line.

level*				×
	Easy Li	nk		
	You may use Eas IP bear in mind.	y Link setting to con	nect to the IPCam wi	thout to have
	🔽 Enable			
	Domain Name:	ac8112a8a999	.level1dns2.net	Check
	Refresh Time:	1 hr 💌		
Skip				

After finish setting, the connection successful or fail showed. If connection failed, user can either try again or quit the installation. User can either select Start Web GUI to continue or click "X" on the top right of the screen to finish the installation.



Once installation is completed, the Administrator should proceed to the next section "Access to the Network Camera" for necessary checks and configurations.

5. Access to the Network Camera

5.1 Check Network Settings

The Network Camera can be connected either before or immediately after software installation onto the Local Area Network. The Administrator should complete the network settings on the configuration page, including the correct subnet mask and IP address of gateway and DNS. Ask your network administrator or Internet service provider for the detail information.

5.2 Add Password to prevent Unauthorized Access

The Administrator should immediately implement a new password as a matter of prudent security practice. The user name and password for the Administrator are assigned as "admin/admin". Once the Administrator's password is saved, the Network Camera will ask for the user's name and password before each access. The Administrator can set up a maximum of ten (10) user accounts. Each user can access the Network Camera except to perform system configuration. Once the password is changed, the browser will display an authentication window to ask for the new password. Once the password is set, there is no provision to recover the Administrator's password. The only option is to restore to the original factory default settings.

6. Authentication

After opening the Web browser and typing in the URL of the Network Camera, a dialogue window pops up to request a username and password. The user name and password for the Administrator are assigned as "admin/admin". Upon successful authentication, the following figure is displayed. The foreground is the login window and the background shows the message if authentication fails. The user may check the option box to save the password for future convenience. This option is not available to the Administrator for obvious reason.

Connect to 192.	168.1.1 🛛 🛛 🔀
	GE
The server 192.168 username and pass Warning: This serve password be sent ir without a secure co	3.1.1 at LevelOne IPCAM Login requires a word. er is requesting that your username and n an insecure manner (basic authentication onnection).
User name:	😰 admin 💌
Password:	••••
	Remember my password
	OK Cancel

6.1 Installing plug-in

For the initial access to the Network Camera in Windows, the web browser may prompt for permission to install a new plug-in for the Network Camera on the Internet Explorer. Permission request depends on the Internet security settings of the user's PC or notebook. If the highest security level is set, the computer may prohibit any installation and execution attempt. This plug-in has been registered for certificate and is used to display the video in the browser. Users may click on

Install to proceed. If the web browser does not allow the user to continue to install, check the Internet security option and lower the security levels or contact your IT or networking supervisor for help.



7. Live View



7.1 View Mode

FCS-6010 support remote 16 channel function

You can setup FCS-6010 as a master IPcam to remote viewing other camera's video screen in FCS-6010 Web configuration page.

Single

In single mode, you can check one camera video in the full screen.

You can select the drop-down menu to select the camera 1 to camera 16.



Multiple

In multiple mode, you can check 4 cameras video in the same screen.

You can select the drop-down menu to select the camera 1~4 to camera 13~16.



If you want to add camera2~camera4 in this screen, click the ch2~ch4 screen to add camera. It will pop up a connect setting screen as following.

View Mode Multiple 💌 1~4 💌				
2009/01/01 00:12:09	H.264	1280×1024	Playing	Camera Control Panel
		CH 2		Brightness
Connect Setting				Mic Volume
IP Address :		Click here to	add a camera	Speaker Volume
HTTP Port: 80				
RTSP Port : 554				
UserName :		CH 4		
Password :				9 C
Save connection parameters to	o device.	Click here to	o add a camera	
Connect Ca	ncel			

Auto Scan

In auto scan mode, you can check one camera video in the full screen.

The device will automatically change to next camera video each per 10 seconds.

You can select the drop-down menu to change the time parameter from 10 seconds to 100 seconds.



Live View

is the default page that opens when accessing the Network Camera. Live video is displayed directly in the browser window.

Stream1/Stream2 Channels

The network camera offers simultaneous dual stream for optimized quality and bandwidth. To configure the codec compression and video resolution, please go to the Configuration->Camera/video/audio->Video to make the changes, or refer to the Video configuration page.

TCP/UDP protocol

TCP - This protocol guarantees the complete delivery of streaming data and thus provides better video quality. Nevertheless, the downside with this protocol is that its real-time effect is not as good as that of the UDP protocol.

UDP - This protocol allows for more real-time audio and video streams. However, network packets may be lost due to network burst traffic and images may be broken. Activate UDP connection when occasions require time-sensitive responses and the video quality is less important.

LED Control

Select from the drop-down list to adjust the brightness of the camera's LED. Click Apply or Reset to take effect.



Recording on/off: shows the status of recording video



MIC on/off: shows the status of MIC volume.



MD on/off: shows the status of Motion Detection

Camera Control Panel - There are two slider bars and eight control buttons on the remote controller. They are describe as below:

Brightness and Mic volume adjustment - Drag the slider bar to adjust the image brightness level and Mic volume. Click "Default" for default brightness setting and "Mute" for no sound. For more Audio setting, please refer to the Audio configuration on page 22.

Speaker –You can output the audio form the computer's audio input terminal to the camera's built-in speaker output.



Play or Stop - Click this button to play or stop the video.



Recording - Click this button to record video to your computer.



Snapshot - Click this button to capture and save still images.



Digital Zoom - Click this button to enable the zoom operation.



Mirror - horizontally reflect the display of the live video.



Flip - vertically reflect the display of the live video.



Real Size - click this button to view the object in real size. Press this button again to switch back to normal mode.

Full Screen - Click this button to switch to full screen mode. Press "Esc" key to switch back to normal mode.



Motion Detection Alert: Click this button to enable motion detection alert function.



Mute – Turn off the sound.



Talk(*) – To communicate through the camera using the computer MIC.



Set Default - Reset to default settings.

PT Control

Patrol - Enable the patrol function. If a designated patrol has not been set for that time period, the first patrol group on the patrol list will be enabled.

Pan/Tilt Control - Click on the arrows to pan and tilt the camera. Click the center of icon to return to the home position.

Joystick Mode – Scroll over the live view window to move the camera view in the direction of the mouse pointer.

NOTE - The <Video Control Panel> function has no effect on the recorded video. Whatever changes made to the <Video Control Panel> will not be applied to the recorded video.

8. Camera/Video/Audio

Click Configuration on the main page to enter the camera setting pages. Note that only Administrators can access the configuration page.

8.1 Camera

Camera Settings

Brightness : Drag the slider bar to adjust the image brightness level from -5 to +5.
Contrast : Drag the slider bar to adjust the image contrast level from -5 to +5.
Sharpness : Drag the slider bar to adjust the image sharpness level from -5 to +5.
Saturation : Drag the slider bar to adjust the image saturation level from -5 to +5.

Mirror and Flip

Mirror - Enable to horizontally reflect the display of the live video.Flip - Enable to vertically reflect the display of the live video.

Flicker-Free

Eliminates the problem of flicker.

Color Effect

Select to display color or black and white video streams.



8.2 Video

The Network Camera offers two separate streams for different viewing options.

Stream 1& Stream 2

Video Codec : The Network Camera offers three choices of video codec standards for real-time viewing: H.264, MPEG-4 and MJPEG.

Video Resolution : Select from the drop-down menu to choose the best resolution recording settings.

Frame Rate : Select the frame rate from the drop down list, choosing from the range of 1 to 30 fps. Set the frame rate higher for a smoother video quality.

Video quality and bitrate : Users can either choose "quality" or "bitrate" to control the video quality with H.264 and MPEG4 video codec. Only "quality" can be chosen when MJPEG video codec is selected. Set the bitrate higher for a better video quality, but note that a higher bitrate will use higher network bandwidth.

The video quality can be set between Level 1-Level 6, with Level 6 providing the best image quality.

HTTP Transport

Vidoo

If MJPEG is used for Video Codec, users must enable HTTP Transport protocol for video communication.

Click Apply or Cancel to take effect.

Video Codec Video Resolution	H.264	
Video Resolution		
	1280x1024 💌	
Frame Rate	30	
Bitrate Mode	Constant Bitrate	
Bitrate	1500	Kbps. (64~12000)
Quality	3 👻	
Quick settings	For Mobile S	Streaming
		Stream 2
Enable	W	
Video Codec	MJPEG 🚽	
Video Resolution	1280x1024 💌	
Frame Rate	25	
Bitrate Mode	Variable Bitrate	*
Bitrate	84	Khos (64~12000)
Quality	3	
	(

Video Overlay

Timestamp

Check to enable the timestamp function and select display position from the drop-down list if user wants date and time to be shown on the screen of the live video. User may also enable and enter the video description in text box; and select display position from the drop-down list if user wants to make a note about the network camera.

Click Apply or Cancel to take effect.



Note: The video overlay will only takes effect in stream 1.

Video

	Timestamp
Enable	
Position	Left-Top 🔻
	Text
Enable	
Position	Left-Top 💌
Text	

RTSP Server

To utilize RTSP authentication, the user must first set a password for the Network Camera. RTSP (Real-Time Streaming Protocol) controls the delivery of streaming media. The port number is set to 554 by default.

RTSP (Real-Time Streaming Protocol) controls the delivery of streaming media. The port number is set to 554 by default.

Authentication - Depending on the network security requirements, the Network Camera provides two types of security settings for streaming via RTSP protocol: NONE and DIGEST.

If DIGEST authentication is selected, user credentials are encrypted using MD5 algorithm, thus providing better protection against unauthorized access.

Click Apply or Cancel to take effect.

Video

	RTSP Server	
Port	554	
Authentication	NONE -	
	RTP/RTCP	
RTCP Mode	Without SR 👻	

8.3 Audio

The administrator can set up two separate streams for the Network Camera for different viewing devices. The administrator can enable or disable the audio function on either stream. If audio enable is selected, select the Audio codec from the drop-down menu.

Click Apply or Cancel to take effect.

Audio Configuration

	Stream 1
Enable	
Audio Codec	G.711 🔽
	Stream 2
Enable	
Audio Codec	G.711 🖌

Advanced Settings

Echo Cancellation Enabled - Enable to avoid an echo. Click Apply or Cancel to take effect.

Stream	Advanced Settings
	Camera MIC
MIC Type	Built-in MIC 🗨
	Camera Speaker
Enable	
Volume	100% 💌
	Echo Cancellation
Enable	
	Apply Cancel

8.4 Multicast

Multicast

	Stream 1	
Enable		
Multicast Address	234 .1 .2 .3	Port 10000
	Stream 2	
Enable		
Multicast Address	234 1 2 3	Port 20000

Multicast sends a video stream to the multicast group address and allows multiple clients to acquire the stream at the same time by requesting a copy from the multicast group address. Therefore, multicast can effectively save Internet bandwidth. The RTSP (Real-Time Streaming Protocol) controls the delivery of streaming media.

Note - Using the IP address of the camera enables you to view the video.

Example: rtsp://192.168.1.1/channel1

Click Apply or Cancel to take effect.

8.5 Privacy Mask

The Cube camera is equipped with a privacy feature which allows users to mask the camera's live view. A black screen will be displayed in place of the live view window. This application is particularly useful when the camera is being used for home surveillance. With the privacy button, the user can have privacy while they are going about their daily life.

Privacy Mask Control



8.6 Multi Camera

Add view mode camera 2~4 to camera 12~16.

Multi Camera

Camera List			tion	
Name	IP Address	atatua	AC	uon
1	192.168.10.113	Online	Edit	Delete

8.7 NTSC / PAL

NTSC / PAL TV out options selected capture mode.

NTSC/PAL

NT8C/PAL	
	NT \$C/PAL
Mode	NTSC
	Apply Cancel

9. Camera Control

9.1 Preset Positions

A preset position is a pre-defined camera view that can be used to quickly move the camera view to a specific location. To create a preset position:

Use the Pan, Tilt (PT) controls to steer the camera view to the required position.

Enter a descriptive name under Current Position and click Add.

The camera position and focus settings will be saved as a preset position.

NOTE – A total of sixteen preset points can be set.

Preset Positions can be assumed at any time by selecting the preset position's name from the available positions drop-down list. One position can be set as the **Home** position, which is readily accessible by clicking the **Home** button in the PT panel.

NOTE - The name of the preset point set as **Home** will have (H) added; for example, Gate (H).

The camera can be configured to return to the **Home** position when the camera has been inactive for a specified length of time. Select the desired length of time from the drop-down menu and click **Apply**. Setting the time to zero prevents the camera from automatically returning to the Home position.



Preset Point

Privacy Mask

Add / Edit Privacy mask A privacy mask can be created to conceal areas within the camera's view. The Privacy Mask List displays all the masks that are currently configured for the network camera and if they are enabled.

NOTE – A total of sixteen privacy masks can be created.

To create a new privacy mask:

a. Use the Pan, Tilt (PT) controls or select Preset Point from the drop-down menu to steer the camera view to the required position.

- b. Click on Add. A rectangle will appear on the center of the viewing window.
- c. Use the mouse to resize the privacy mask window.
- d. Enter a descriptive name in Mask name, choose a color from the Privacy mask color drop-down menu and click Apply.

To edit a privacy mask, select the mask and reshape, move or change the color as needed.

9.2 Patrol Settings

The camera can be set to patrol a group of preset points. For each patrol group, the user can configure the preset point order, movement speed, and viewing duration.

To create a patrol group:

- a. Click on Add and enter a descriptive name in Description.
- b. Add preset points to the patrol group by clicking the next to the desired preset point.
- c. Use the arrow buttons to change the order of the preset positions by using the Adjust the sequence of

positions, and enter Movement Speed and Viewing Duration for each preset point.

- d. Click on Apply to save the patrol group.
- e. Enable a patrol set by clicking on Start/Stop.

1. A total of sixteen preset points can be assigned to a patrol group.

2. A total of four patrol groups can be assigned to a network

camera.

Patrol Settings

Patrol Settings		
	Description	Running
test		Stop
	Add Edit [Delete Start/Stop

10. Network

10.1 IP Setting

This section explains how to configure wired network connection for the Network Camera. There are several ways to setup the Network Camera over the Internet. The first way is to obtain an available dynamic IP address assigned by a DHCP server. The second way is to utilize a static IP. The third way is to use PPPoE.

DHCP

If this option is selected, the camera will automatically obtain an available dynamic IP address from the DHCP server each time it connects to the LAN.

Click Apply or Cancel to take effect.

Network Settings

Netw	vork Settings	IEEE 802.1X
		Wired Settings
	Mode	DHCP 💌
		Apply Cancel

Static IP

Select this option to manually assign a static IP address to the Network Camera. Enter the static IP address, Subnet mask, Default Gateway, Primary and Secondary DNS provided by your ISP. Click **Apply** or **Cancel** to take effect.

Network Settings

	Wired Settings
Mode	Static IP 💌
IP Address	192 . 168 . 50 . 73
Subnet Mask	255 . 255 . 255 . 0
Default Gateway	192 . 168 . 50 . 1
Primary DNS	168 . 95 . 1 . 1
Secondary DNS	61 . 31 . 233 . 1

Network Settings

Network Settings	IEEE 802.1X	
Enable		
Protocol	EAP-TLS 💌	
Username		
Private Key Password		
Client Certificate	(瀏覽)	Upload No Client Certificate uploaded
CA Certificate	瀏覽	Upload No CA Certificate uploaded
	Apply Cancel	

PPPoE - (Point-to-point over Ethernet):

Choose this connection type if you are connected to the Internet via a DSL Line. Note that to utilize this feature, it requires an account provided by your ISP. Enter the user name and password provided by your ISP.

Click Apply or Reset to take effect.

IP Settings

Mode	PPPOE V	
Username		
Password		

10.2 Wireless Settings

This section explains how to configure wireless network connection. Please Insert USB WUA-0606 150Mbps Wireless USB Adapter. And then plug in the power the Reboot FCS-6010

Wireless Settings

Click "Enable" to enable this function and Gateway which the camera will appear as on the Wireless Click **Apply** or **Cancel** to take effect.

Network Settings

Network Settings	IEEE 802.1X
	Default Gateway Setting
Gateway	Wireless -
	Wired Settings
Mode	DHCP
	Wireless Settings
Enable	
Mode	DHCP
	Apply Cancel

10.3 UPnP

Universal Plug and Play (UPnP) simplifies the process of adding a Network Camera to a local area network. Once connected to a LAN, the camera will automatically appear on the intranet. Click "Enable" to enable this function and enter an UPnP name which the camera will appear as on the intranet.

Click Apply or Cancel to take effect.

UPnP

UPnP	
Enable	
UPnP Name	FCS-6010-1163
	Apply Cancel

10.4 DDNS(dynamic domain name service)

DynDNS

Enable the DynDNS to allow the Network Camera to have a fixed host and domain name. Enter the username, password and hostname.

Click Apply or Reset to take effect.

DynDNS	тzo
Enabled	
Username	
Password	
Hostname	
	Apply Reset

TZO

TZO is a DDNS provider which allows users to create a dynamic DNS. Refer to the TZO website (http://www.tzo.com/) to apply a dynamic domain account. When an account has been created, enter the e-mail address, password and domain name.

DynDNS	тzo
Enabled	
E-mail Addre	SS
TZO Passwo	rd
Domain Nam	
	Apply Reset

10.5 Easy Link

The IP camera had bundle with free Level1DNSTM service that allows user to remote access the IP camera via internet. The default domain name is MAC address, you can also register your own name on-line but it have to check the available first. The status will show the connection with Level1DNSTM service.

Notice: Please make sure the internet connection is ready first! Click Apply or Cancel to take effect.

EasyLink

	FasyLink
Enable	
Domain Name	00116b711163 .level1dns2.net Verify
Refresh Time	1 Hour 💌
Status	Cannot communicate with the router via UPnP protocol.
	Apply Cancel

10.6 Wireless(Need to plug in USB WUA-0606 150Mbps Wireless USB Adapter)

Basic Settings

Network Name (SSID) - The SSID is the network name shared among all points in a wireless network. The SSID must be identical for all devices in the wireless network. It is case-sensitive and can be up to 32 characters in length. Make sure this setting is the same for all points in your wireless network. Wireless devices have a default wireless network name or Service Set Identifier (SSID) set by the factory,. Level1 wireless products use Level1 as the default wireless network name. You should change the wireless network name to something unique to distinguish your wireless network from other wireless networks that may exist around you, but do not use personal information, because this information may be available for anyone to see when browsing for wireless networks.

Encryption protects data transmitted over a wireless network. Wi-Fi Protected Access (WPA-Personal/WPA2-personal) and Wired Equivalent Privacy (WEP) offer different levels of security for wireless communication. A network encrypted with WPA-Personal/WPA2-personal is more secure than a network encrypted with WEP, because WPA-Personal/WPA2-personal uses dynamic key encryption. To protect the information as it passes over the airwaves, you should enable the highest level of encryption supported by your network equipment.

Select the security method for your wireless network. If you do not want to use wireless security, keep the default, Disabled.

Click Apply or Cancel to take effect.

Wireless Configuration



WEP

WEP is a basic encryption method that is not as secure as WPA.

Tx Key - Select a key from the drop-down menu.

WEP Encryption: Select a level of WEP encryption, 64 bits 10 hex digits or 128 bits 26 hex digits. The default is 64 bits 10 hex digits.

Key 1-4 - Enter the WEP key(s) manually

Authentication Type - The default is set to open system, which allows either Shared Key or Auto authentication to be used. With Open System authentication, the sender and the recipient do NOT use a WEP key for authentication. With Shared Key authentication, the sender and recipient use a WEP key for authentication.

Network Type - Select Infrastructure if your network consists of both wired and wireless devices that communicate through a central device, such as an access point. Select Ad-hoc if your network consists of only wireless devices that communicate with each other directly.

Click Apply or Reset to take effect.

Site Survey

SSID Broadcast, when wireless clients survey the local area for wireless networks to associate with, they will detect the SSID broadcast of the camera.

Click Apply or Cancel to take effect.

Wireless Configuration

Basic Settings	Advanced Settings		
Net	work Name (SSID)	LevelOne	Site survey
	Network Type	Infrastructure mode	
	Security	WEP	
	TX Key		
V	NEP Encryption	40/64 bits (10 hex digits)	
	Key 1		
	Key 2		
	Key 3		
	Key 4		
	Authentication	Open System 💌	
	Apply	Cancel	
		Site Survey List	
	Click the Site	Survey button to update the list.	

WPA-Personal

WPA supports two encryption methods, TKIP and AES, with dynamic encryption keys. Select the type of algorithm, TKIP or AES. The default is TKIP.

Shared Key - Enter the key shared between the Router and the server keys. Enter a passphrase of 8-63 characters.

Network Type - Select Infrastructure if your network consists of both wired and wireless devices that communicate through a central device, such as an access point. Select Ad-hoc if your network consists of only wireless devices that communicate with each other directly.

Click Apply or Cancel to take effect.

Wireless Configuration



WPA2-Personal

WPA2 supports AES encryption methods with dynamic encryption keys.

Shared Key - Enter the key shared between the Router and the server keys. Enter a pass phrase of 8-63 characters.

NOTE: If you are using WPA or WPA2, each device in your wireless network MUST use the same WPA or WPA2 method and shared key, or else the network will not function properly. Click Apply or Cancel to take effect.



Wireless Configuration

Advanced Settings

Network Mode - From this drop-down menu, you can select the wireless standards running on your network. If you have both Wireless-B, Wireless-G and Wireless-N (2.4GHz) devices in your network, keep the default setting, Mixed. If you have both Wireless-B, Wireless-G devices in your network, select BG-Mixed. If you have only Wireless-B devices, select Wireless-B Only. If you have only Wireless-G devices, select Wireless-N (2.4GHz) devices, select Wireless-N (2.4GHz) devices, select Wireless-N Only.

Radio Band - The settings are available for the Auto-20/40MHz channel and Standard-20 MHz channel. The Auto-20/40MHz channel set up a network using the 20/40MHz band, and the Standard-20 MHz channel set up a network using the 20 MHz band.

Enable WMM (802.1e QoS) - WMM is a wireless Quality of Service feature that improves quality for audio, video, and voice applications by prioritizing wireless traffic. To use this feature, your wireless client devices in your network must support Wireless WMM. If you would like to disable this feature, select Disabled. Otherwise, keep the default, Enabled.

Click Apply or Cancel to take effect.

Wireless Configuration

Basic Settings Advance	ed Settings
Network Mode	BGN-Mixed
Radio Band	Auto-20/40MHz Channel
WMM (802.1e QoS)	Disable 💌
(Apply Cancel

10.7 HTTP/HTTPS

HTTP - This protocol allows the same quality as TCP protocol without needing to open specific ports for streaming under some network environments. Users inside a firewall can utilize this protocol to allow streaming data through.

HTTPS - (Hypertext Transfer Protocol over SSL): This section explains how to enable authentication and encrypted communication over SSL (Secure Socket Layer). It helps protect streaming data transmission over the Internet on higher security level than HTTP.

Click **Apply** or **Cancel** to take effect.

HTTP/HTTPS

н	TTP/HTTPS	
		НТТР
	Enable	
	Port	80
		HTTPS
	Enable	
	Port	443
		Apply Cancel

11. Event

11.1 Motion Detection

Motion Detection Motion can be detected by measuring changes in the speed or vector of an object or objects in the monitored area. This section explains how to configure the Network Camera to enable motion detection.

Detection Settings

Use this setting to enable and define the motion detection windows. The user can defined up to three areas on the live view window for motion detection.

- 1. Select < Win1 >, < Win2 >, or < Win3 > to adjust the motion detection window.
- 2. Check the box to enable the window.
- 3. Use the mouse to resize or move the motion detection window.
- 4. Adjust the Sensitivity level. Lower sensitivity levels will result in more activity needed to trigger an event.
- 5. Adjust the Threshold to change the threshold level. The higher the threshold level, the larger size of the object is needed to trigger an event.
- 6. The chart below the Live View window indicates the activity level of the Motion Detection window. When motion is detected by the network camera and exceeds the defined threshold, a red bar will appear. Users can use this feature as a trigger source to send photos or videos to a remote server via email or FTP.

Click Apply or Reset to take effect.

Motion Detection



Notification

To react in response to particular events. A typical application is that when motion is detected, the Network Camera sends buffered images to a FTP server, SMTP or Samba as notifications. In this page, you can specify which notification messages will be sent when a trigger is activated. Click **Apply** or **Cancel** to take effect.

Motion Detection

Detection Settings	Notification			
FTP Notif	fication			
Samba N	otification			
SMTP No	otification			
HTTP No	tification			
Save Stre	eam to SD card			
		Apply	Cancel	

11.2 Notification Settings

When an event is triggered, the user can specify what kind of action will be performed. The actions include sending a video clip to an email address, FTP site, or Samba. There are two choices of media types available: video clip and snapshot.

FTP

File Transfer Protocol (FTP) is used as an application component to automatically transfer files for program internal functions. Select "Primary FTP Server" from the Server Selection drop down menu to send media files to a FTP server when an event is triggered. Enter the FTP IP address or hostname. By default, the FTP port server is set to 21. Enter the account name, password and FTP Path to configure the settings.

Click Apply or Cancel to take effect.

Notification Settings

Server Selection	Primary FTP Server
FTP Address	IP Address 192 . 168 . 10 . 4
FTP Port	21
Account Name	mark
Account Password	••••
FTP Path	/upload/test/
Attachment	Video Clip O Snapshot

SMTP

Select "Primary Email Server" option from the Server Selection drop down menu to send media files to an email server when an event is triggered.
SMTP Server - Enter the server host name of the email server.
SMTP Port - Enter the Port number of the email server. By default, the SMTP Port is set to 25.
Authentication - Select the authentication type from the drop-down menu.
Email Account - Enter the username of the email account if necessary.
Email Password - Enter the password of the email account if necessary.

SMTP Server and Port number

Enter the server host name and Port number of the email server.

Authentication

Select the authentication type from the drop-down list.

Email Account

Enter the user name of the email account if necessary.

Email Password

Enter the password of the email account if necessary.

Notification Settings

From		
То		
СС		
Sender's Name		
Subject		
Attachment	Video Clip Snapshot	
Server Selection	Primary Email Server	
SMTP Server		
SMTP Port	25	
	LOGIN	
Authentication		
Authentication Email Account		

Samba

Select this option to send the media files via the network neighborhood when an event is triggered.

Server Address - Enter the IP address of the Samba server.

Username - Enter the username of the Samba server.

Password - Enter the password of the Samba server.

Workgroup - Enter the workgroup of the Samba server.

Shared DIR - Enter the shared DIR of the Samba server.

Select this option to send the media files via an HTTP notification when an event is triggered.

Notification Settings

Server Address	IP Address 💌 0 . 0 . 0 . 0
User Name	guest
Password	•••••
WorkGroup	
Shared Folder	
Attachment	Video Clip Snapshot

HTTP

Specify the URL to send HTTP requests. The URL is normally written as follows:

http://IP_address/ notification.cgi xxx parameter

IP_address - type the IP address or host name of the host to which you want to connect.

Parameter - type the notification parameter if necessary.

Example

URL: http://192.168.1.1/xxxx.cgi

Message: name1=value1&name2=vlaue2

Result: http://192.168.1.1/xxxx.cgi? name1=value1&name2=vlaue2

EΧ

http://192.168.1.1/notification.cgi?event=MD&camera=FB-100A Message - Enter the message notification that will be sent when an event is triggered. Enter the user name and password if necessary. Click Apply or Cancel to take effect.

Notification Settings

URL		
Message		
User Name		
Password		

11.3 Scheduled Event

Click New to open the recording setting page. In this page, the user can define the recording schedule and recording capacity.

Name - Enter a descriptive name for the recording setting.

Event - Select the event type from the drop-down menu

Time - Specify the recording duration.

Scheduled Event

and a second					Sche	dule	
nable Name Event Start End Date Ac	le	Name	Event	Start	End	Date	Action

11.4 DI/DO

Digital Input - The DI socket allows the IP camera to receive input from an external device.

The external device should have the ability to drive voltage on the connected DI wire to the triggering voltage level in order to notify the IP camera of any event of interest. The IP camera will then process the event notification according to the specific event rules.

Triggering voltage Level: LOW, HIGH, Rising and Falling.

Users should select the option according to the capability of their external device.

Digital Output - The DO socket allows the IP camera to send output to an external device. While executing the DO notification action, the IP camera drives voltage on the connected DO wire to the triggering voltage level for X number of seconds. The connected external device will then be triggered for X number of seconds.

Triggered Voltage Level - OPEN or GROUND

Users should select the option according to the specification of their external device.

Click Apply or Cancel to take effect.

DI/DO

Digital Input	Low 💌 (Current status: High)	
Digital Output	Grounded Duration 5	Sec (Current status: High)

12. System

12.1 System Log

Set up the network camera to record a system log when an event is triggered.

This page displays the system's log in chronological order. The system log is stored in the network camera's buffer area and will be overwritten when the buffer area is full.

Click Retrieve to retrieve the log or Save to file to save the file to a specified location.

System Log

LOG_INFO-stream	:Channel [1] stopped streaming to host "[192.168.50.181]", Mon Nov 7 11:11:52 2011
LOG_INFO-stream	:Channel [1] started streaming to host '[192.168.50.181]', Mon Nov 7 11:11:09 2011
LOG_INFO-stream	:Channel [1] stopped streaming to host '[192.168.50.181]', Mon Nov 7 11:11:07 2011
LOG_INFO-stream	:Channel [1] started streaming to host '[192.168.50.181]', Mon Nov 7 11:11:06 2011
LOG_INFO-stream	:Channel [1] stopped streaming to host "[192.168.50.181]", Mon Nov 7 11:05:02 2011
LOG_INFO-stream	:Channel [1] started streaming to host "[192.168.50.181]", Mon Nov 7 11:04:45 2011
LOG_INFO-stream	:Channel [1] stopped streaming to host "[192.168.50.181]", Mon Nov 7 11:04:42 2011
LOG_INFO-stream	:Channel [1] started streaming to host '[192.168.50.181]', Mon Nov 7 11:04:42 2011
LOG_INFO-stream	:Channel [1] stopped streaming to host "[192.168.50.181]", Mon Nov 7 11:01:23 2011
LOG_INFO-stream	:Channel [1] started streaming to host "[192.168.50.181]", Mon Nov 7 11:01:00 2011
LOG_INFO-stream	:Channel [1] stopped streaming to host "[192.168.50.181]", Mon Nov 7 11:00:58 2011
LOG_INFO-stream	:Channel [1] started streaming to host '[192.168.50.181]', Mon Nov 7 11:00:57 2011
LOG_INFO-stream	:Channel [1] stopped streaming to host '[192.168.50.181]', Mon Nov 7 11:00:22 2011
LOG_NOTICE-Ftpl	Jpload :Event triggered: notification sent to FTP server [192.168.10.4]., Mon Nov 7 10:59:0
2011	
LOG_NOTICE-Ftpl 2011	Jpload :Event triggered: notification sent to FTP server [192.168.10.4]., Mon Nov 7 10:58:50
LOG_NOTICE-Ftpl 2011	Jpload :Event triggered: notification sent to FTP server [192.168.10.4]., Mon Nov 7 10:58:4
LOG_INFO-stream	:Channel [1] started streaming to host '[192.168.50.181]', Mon Nov 7 10:58:33 2011
LOG_INFO-stream	:Channel [1] stopped streaming to host "[192.168.50.181]", Mon Nov 7 10:58:31 2011
LOG_INFO-stream	:Channel [1] started streaming to host "[192.168.50.181]", Mon Nov 7 10:58:30 2011
LOG_NOTICE-Web	Server :User "[admin]" logged in to [web server], Mon Nov 7 10:58:07 2011
LOG_INFO-stream	:Channel [1] stopped streaming to host '[192.168.50.181]', Mon Nov 7 10:58:07 2011
LOG_INFO-stream	:Channel [1] started streaming to host '[192.168.50.181]', Mon Nov 7 10:58:08 2011
LOG_NOTICE-Ftpl	Jpload :Event triggered: notification sent to FTP server [192.168.10.4]., Mon Nov 7 10:58:0

12.2 Date and Time

Manual : Manually enter the date and time.

Clone from PC : The camera will sync with the time and date of the computer. Check "Clone" to utilize this option. The read-only date and time of the PC is displayed as updated.

NTP : (Network Time Protocol) - NTP is a protocol for synchronizing the clocks of a computer system.

Select to update the time with a NTP server on an hourly, daily, weekly, or monthly basis.

Time Zone : Select the preferred time zone from the drop-down menu.

NTP Server 1 and Server 2: Enter the address of the NTP server.

Daylight Saving: Enable this option to automatically update Daylight Saving Time changes. Click Apply or Cancel to take effect.

Date and Time

	Manual	Year 20	11 Month 11	Day 7 Hour 10 Minutes 25	Second 47
0	Clone	Year 20	11 Month 11	Day 8 Hour 17 Minutes 15	Second 14
	PC	Clone	2		
			NTP Server 1	tidk.stdtime.gov.tw	
٠	1	NTP	NTP Server 1	tick.stdtime.gov.tw	
			THIT SERVER 2		

12.3 Device Information

System information

Displays the complete system information of the network camera.

Device Information

istem information Ne	twork Settings Video/Audio Settings	
Lan MAC Address	00:11:8b:71:11:83	
Firmware Version	v1.0.0.10	
Firmware Release Date	2011-11-04	
Product Name	FCS-8010	
Model Number	8010	
Company Name	Level One	
Comments	Day/Night 1.3-Megapixel P/T PoE Network Camera	
UPnP Name	FCS-6010-1163	

Network Settings

Displays the complete network settings information of the network camera.

Device Information

ystem information	Network Settings	Video/Audio Settings	
IP Setting Type	DHCP		
IP Address	192.168.50.73		
Subnet Mask	255.255.255.0		
Default Gateway	192.168.50.1		
Primary DNS	168.95.1.1		
Secondary DNS	61.31.233.1		
UPnP	Enabled		
DynDNS	Disabled		
TZO	Disabled		

Video/Audio Settings

Displays the complete video/audio settings information of the network camera.

Device Information

em information	Network Settings Video/Audio Settings
_	Stream 1
Video Codec	H264
Video Resolution	1280x1024(WXGA)
Video Frame Rate	30 fps
Video Bitrate	1500 Kbps
Audio Codec	G.711
Multicast IP	N/A
	Stream 2
Video Codec	MJPEG
Video Resolution	1280x1024(WXGA)
Video Frame Rate	25 fps
Video Quality	3
Audio Codec	N/A
Multicast IP	N/A

12.4 Storage Management

Storage Management

Storage Management

Storage Management is used to view the recorded files on the Micro-SD card.

	Local Storage Information	
Item	SD Card	
Total Capacity	OKB	
Used Space	OKB	
Available Space	OKB	
Memory Card Management	Reload	

Click Reload to refresh the list of recorded files.

48

Advanced Settings

Storage Management

		Automatic Recycle
	Enable	v
		Offline Record
	22	
-	Enable	

12.5 LED Indicators

LED Indicators

The LED on the front of the camera can be configured to remain unlit to prevent detection when the camera is recording. Check Off to enable this function.

Click Apply or Cancel to take effect.

	LED I	ndicators Configuration
Off	0	

13. Maintenance

13.1 User Management

This section can be used to enable password protection and create multiple user accounts.

Privilege Settings

Enter the new user's name and password. Select the privilege level for new user account. Click Add to take effect. The administrator account name is "admin", which is permanent and can not be deleted. Administrators can add up to 10 user accounts.

Select the privilege level for new user accounts. Privilege levels can be assigned as:

Administrator - user has access to view and change the Configuration page. Users with administrator privilege can change other user's access rights and delete user accounts. Click Delete or Update to

delete or modify a user's account.

Viewer - user can only access the Live View page.

Remote Viewer - user can only access the Live View page using TCP protocol.

User Management

Enable	Apply	-	-	_		_	-
Index	User Name	Password	Confirm Password	Privilege	_	Action	
1	admin	•••••	•••••	Administrator 💌	Add	Delete	Upda
2	viewer	•••••	•••••	Viewer 💌	Add	Delete	Updat
3	rviewer		•••••	Remote Viewer 💌	Add	Delete	Upda
4				Viewer 💌	Add	Delete	Upda
5				Viewer 💌	Add	Delete	Upda
8				Viewer 💌	Add	Delete	Upda
191							

13.2 IP Filter

Enable the IP filter and select to allow or deny a range of IP addresses access to the server. Click Add to List to add the IP range to the IP filter list.

Click Apply or Cancel to take effect.

IP Filter

Enable	IP Filter	Alk	w Access Li	st	•	Deny Ac	cess List
From			То].	Add to List
1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.1.							

13.3 Firmware Upgrade

This feature allows the user to upgrade the Network Camera's firmware. It will take a few minutes to complete the process.

Upgrade

Click Browse and specify the firmware file. Click Upgrade. The Network Camera will begin to upgrade the firmware and will reboot automatically when the upgrade is complete.

Firmware Upgrade

Select a File	(19) (

13.4 Configuration

This feature allows the user to export/import the configuration files of the network camera. Import / Export

Click Export to export the network camera's configuration files. A window will pop up and the user can select the location and file to export. Click Browse to select the location and file of the camera configuration and click Import to import the configuration file back into the network camera.

Configuration

Export	Export		
Import	Please select a file to import	(B) Curr	
	Import		

13.5 Reset to Default

Click **Reset** to restore the network camera to factory default settings.

Reset to Default	
Press Button to Reset	Reset

13.6 Reboot

This feature will reboot the Network Camera. Click **Reboot** to reboot the Network Camera.

A message will pop up asking "The device will reboot. Are you sure?" Click "OK" to continue. The camera will take about one minute to reboot.

Reboot	
Press Button to Reboot	Reboot
osoft Internet Explorer	
osoft Internet Explorer	
osoft Internet Explorer	you sure?

The following message will show during the rebooting process.

When completed, the live video page will be displayed in the web browser.