

### DCS-5610

# **PTZ PoE Internet Camera**

# User Manual

# **Business Class Networking**

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# **Package Contents**

- D-Link DCS-5610 PTZ PoE Internet Camera
- CAT5 Ethernet Cable
- Power Adapter
- Manual and Software on CD
- Quick Install Guide
- Camera Stand

**Note:** Using a power supply with a different voltage than the one included with your product will cause damage and void the warranty for this product.

If any of the above items are missing, please contact your reseller.



# **System Requirements**

- Windows<sup>®</sup> XP or Windows Vista<sup>™</sup>
- At least 256MB of memory (512MB recommended)
- An available Ethernet connection
- Internet Explorer 6.x or higher Internet Web Browser
- VGA card resolution: 800x600 or above
- CPU: 1.7GHz or above processor (2.8GHz plus processor with 512MB memory and a 32MB video card is required for multiple camera viewing and recording in IP surveillance program)

# Introduction

The D-Link **DCS-5610** PTZ (Pan, Tilt, and Zoom) PoE Internet Camera is a full featured surveillance system that connects to an Ethernet, Fast Ethernet or broadband Internet connection to provide remote high-quality 2-Way Full Duplex audio, and 2.6x optical and 4x digital zoom for greater clarity and detail from your recordings. The **DCS-5610** is the latest product added to the D-Link SECURICAM Network line. The **DCS-5610** PTZ PoE Internet Camera differs from a conventional PC Camera because it is a stand-alone system with a built-in CPU and Web server, capable of solving demanding security and home/office monitoring needs. The PTZ PoE Internet Camera can be accessed remotely, and controlled, from any PC or notebook computer over the Internet from anywhere in the world. The simple installation procedures, along with the built-in Web-based interface offer easy integration to your network environments.

**Note:** Use of audio or video equipment for recording the image or voice of a person without their knowledge and consent is prohibited in certain states or jurisdictions. Nothing herein represents a warranty or representation that the D-Link product provided herein is suitable for the end-user's intended use under the applicable laws of his or her state. D-Link disclaims any liability whatsoever for any end-user use of the D-Link product, which fails to comply with applicable state, local, or federal laws.

# **Features**

- Motorized Pan and Tilt Operation The DCS-5610 has a pan and tilt function that can expand your viewing area to cover a wide 300° angle side-to-side and a 90° angle up and down.
- CCD Sensor The DCS-5610 comes with a high quality CCD sensor that is superior to CMOS type sensor. The variable focus glass lens will facilitate the use of the DCS-5610 providing crystal clear and sharp images. You can view up to 30 frames per second of live motion video with 470 TV lines of resolution.
- Broad Range of Applications With today's high-speed Internet services, the PTZ PoE Internet Camera can provide the ideal solution for live video images and audio over the Intranet and Internet for remote monitoring. The DCS-5610 allows remote access from your Web browser for live image viewing with audio, and allows the administrator to manage and control the PTZ PoE Internet Camera anytime and anywhere in the world. Apply the Internet Camera to monitor various objects and places such as homes, offices, banks, hospitals, child-care centers, amusement parks and other varieties of industrial and public monitoring. The PTZ PoE Internet Camera can also be used for intruder detection with its motion-detection mode, capture still images and video images for archiving, and many more applications such as sending images to an FTP server or configuring for E-mail alerts. The DCS-5610 features 2-way Full-Duplex audio with a built-in microphone that lets you remotely monitor and record audio with your video. With the addition of optional speakers (not included), you can have 2-way Full-Duplex audio communication with the people you are viewing. The DCS-5610 also features 2.6x optical and 4x digital zoom for closer viewing.
- Supports a Variety of Protocols In addition, the DCS-5610 supports a variety of platforms including RTSP, FTP, SMTP, NTP, and HTTP. The camera also supports UPnP and DDNS. DDNS allows your camera to be accessed using a static host name rather than an IP address. UPnP will allow users of Windows<sup>®</sup> XP to install the camera with a single mouse click.

- Audio Out Connect a speaker to the camera so that a person in front of the camera can hear the person on the other end of the communication.
- Web Configuration Using a Web browser, administrators can configure and manage the PTZ PoE Internet Camera directly from its own Web page via the Intranet or the Internet. Up to 20 user names and passwords are permitted, with privilege settings controlled by the administrator.
- **Powerful Surveillance and Remote Monitoring Utility** The powerful **D-ViewCam** software application assigns an administrator with a pre-defined user ID and password who can modify the PTZ PoE Internet Camera settings from the remote site via the Intranet or the Internet. Administrators are allowed to monitor the image, record the image to a hard drive, take snapshots, and more.
- **Connection to External Devices** Supporting auxiliary Input/Output connectors, you can connect the PTZ PoE Internet Camera to a variety of external devices such as IR-sensors, switches and alarm relays. Combined with programmable alarming equipment, you can develop a variety of security applications that are triggered on alarm-based events. The PTZ PoE Internet Camera provides an industry standard in/out external connector for connectivity.
- Internal/External Microphone The SECURICAM Network DCS-5610 allows you to monitor video as well as audio through the web browser. You have the option of using the DCS-5610's integrated microphone or your own external microphone using the connection located at the rear of the unit.

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### Hardware Overview Connections

#### **DC Power Connector**

The DC power input connector is located on the DCS-5610 Internet Camera's back panel and is labeled 12V DC with a single socket to supply power to the Internet Camera.

#### Reset Button

Reset will be initiated when the reset button is pressed once and held 30 seconds until the Power LED flashes through its cycle twice.

**MIC On/Off Switch** 

Used to turn the microphone on or off.

#### **Ethernet Cable Connector (PoE)**

The Internet Camera's back panel features an RJ-45 connector for connections to 10Base-T Ethernet cabling or 100Base-TX Fast Ethernet cabling. This network port supports the NWay protocol, allowing the Internet Camera to automatically detect or negotiate the transmission speed of the network. The Ethernet port can also be used to power the camera using a PoE switch.

#### **Microphone Connector**

The DCS-5610 Internet Camera has an internal microphone built-in. However, you have the option of using an external microphone by plugging it into the microphone connector.

#### **Audio Out Connector**

The DCS-5610 provides an Audio Out connector to be used for 2-way audio. Speakers (not included) may be connected to the camera to provide audio for 2-way communication.

#### I/O Connector

The DCS-5610 provides a terminal block with two pairs of connectors situated on the back panel. One pair is for input and the other is for output. The I/O connectors provide the physical interface to send and receive digital signals to and from a variety of external devices.

### Hardware Overview LEDs



#### Power/MIC LED

The power LED is at the front base of the camera. As soon as the power adapter is connected to the camera, the LED will turn red.

#### **Activity LED**

Once a connection has been established via Ethernet port, the Activity LED will turn solid green. If traffic is passing to the camera the Activity LED will blink. If no Ethernet connection is detected the Activity LED will not light up.

#### **Connect Using Power-Over-Ethernet**

Once you connect an Ethernet cable to your PoE switch or adapter, the Power LED on the DCS-5610 will turn green to indicate a proper connection.

Hardware Installation

#### Attach the External Power Supply

Attach the external power supply to the DC power input connector located on the Internet Camera's back panel (labeled DC 12V) and connect it to an AC power outlet.

Note: When you have a proper connection, the LED will turn green. The light may cycle on and off and your computer may show an intermittent loss of connectivity, this is normal until you have configured your Internet Camera.

**Connect the Ethernet Cable** 

Connect an Ethernet cable to the network cable connector located on the Internet Camera's back panel and attach it to the network.





The Internet Camera comes with a camera stand with a swivel ball screw head that can be attached to the Internet Camera bottom socket cavity. Attach the camera stand to the Internet Camera and station it for your application. There are holes located in the base of the camera stand allowing the Internet Camera to be mounted to the ceiling, or any wall securely.





# **Software Installation**

Turn on the computer and Insert the D-Link DCS-5610 Autorun CD in the CD-ROM drive. The step-by-step instructions that follow are shown in Windows<sup>®</sup> XP. The steps and screens are similar for the other Windows operating systems.



If the CD Autorun function does not automatically start on your computer, click Windows Start > Run. In the Run command box type "D:\DCS5610.exe", where D: represents the drive letter of your CD-ROM. If it does start, proceed to the next screen.

#### Click Next to continue.



Click Next

Click I Agree to accept the License Agreement.

icense Agreement		( Nill
Please review the license terms before in	nstalling InstallationWizard 2 1.0.0.1.	U
Press Page Down to see the rest of the a	agreement.	
End-User License Agreement		-
IMPORTANT - READ CAREFULLY		
This End Llear License Agreement (the "	"Agroomont") is a logal agroomont between w	
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Click I Agree

To start the installation click **Install**.

*Note:* The installation may take several minutes to complete.

hoose Install Location	
Choose the folder in which to install Ins	stallationWizard 2 1.0.0.1.
	0.0.1 in the following folder. To install in a different folder. Click Install to start the installation.
Destination Folder	
Destination Folder D:\Program Files\D-Link\Installation	n Wizard 2 Browse
D:\Program Files\D-Link\Installation	n Wizard 2 Browse
	n Wizard 2 Browse
D:\Program Files\D-Link\Installation	n Wizard 2 Browse
D: Program Files (D-Link (Installation Space required: 5.7MB Space available: 2.6GB	n Wizard 2 Browse < Back Install Cancel

### Click Install

G InstallationWizard 2 1.0.0.1	Setup
	Completing the InstallationWizard 2 1.0.0.1 Setup Wizard InstallationWizard 2 1.0.0.1 has been installed on your computer. Click Finish to close this wizard. If Run InstallationWizard 2 1.0.0.1

#### Click Finish

# Configuration

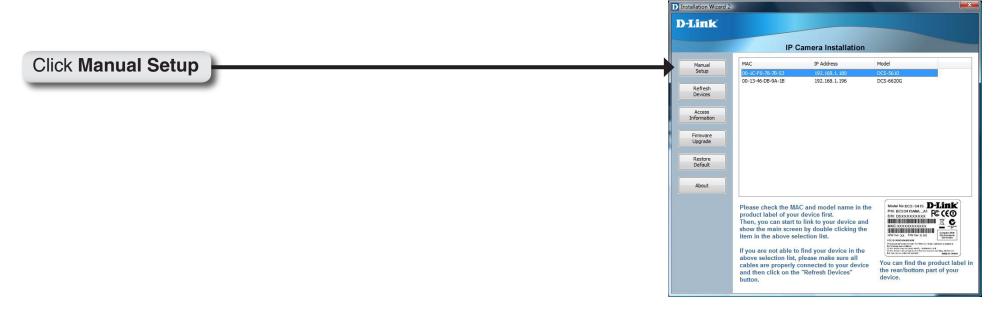
This section will show you how to configure your new D-Link Internet Camera using the Installation Wizard.

# **Setup Wizard Configuration**

Click on the **D-Link Installation Wizard** icon that was created in your Windows Start menu.

The Setup Wizard will appear and show the MAC address of the DCS-5610 and an IP Address (which may or may not be correct depending on what you have your DCS-5610 connected to). If you have a DHCP server on your network, there will be a valid IP Address displayed here.

*Note:* A DHCP server is a device that supplies the same IP address.



Enter the admin ID and password.

Note: The default Admin ID is admin with the password left blank.

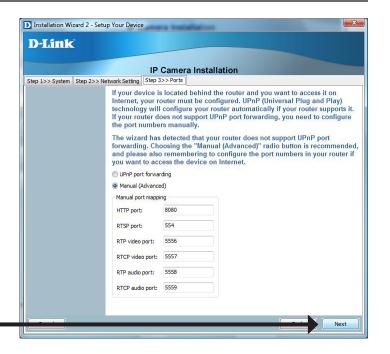
	IP Camera Installation	
Step 1>> System	Step 2>> Network Setting Step 3>> Ports System setup	
	Camera name: DCS-5610	
	Administrator	
	User name: admin	
	Password:	
	Confirm password:	
	Date/Time setup	
	Date: 2/21/2008	
	Time: 14:15:02 (hh:mm:ss)	
	Keep current date and time	
	O Synchronize with computer time	
	Set date and time manually	
	Synchronize to network time server automatically	
	For security consideration, you can assign the hostname and administrator password for your device. Anyone who does not have correct password cannot access the device. If you forget your administrator password, your device must be restored to default settings.	

Click Next

Select DHCP if you want to obtain a new IP address every time the camera boots up.

	ID Com	and Installation	
Step 1>> System Step 2	>> Network Setting Step 3>> Por	era Installation	
step 177 bystem	Get IP by DHCP Server a		
	IP address:	192. 168. 1. 180	
	Subnet mask:	255.255.255.0	
	Default gateway:	192.168.1.1	
	Primary DNS server:	192.168.1.1	
	Secondary DNS server:		

Choose **UPnP Port Forwarding** if your router supports it, otherwise choose **Manual** to enter your port numbers manually. Click **Next** to continue.



Click Next

Enable DDNS and setup your DDNS service here, if you have subscribed to a DDNS service. Click **Next** to continue.

Installation Wizard 2 - Setu	ip Your Device
D-Link	
	IP Camera Installation
Step 1>> System Step 2>> Ne	etwork Setting Step 3>> Ports Step 4>> DDNS
	Enable DDNS         Registration Information         Server name:         Wwww.dlinkddns.com(Free)         Host name:         E-mail address:         Key:
	Confirm key: Sign up for D-Link's Free DDNS server at <a href="http://www.DLinkDDNS.com">http://www.DLinkDDNS.com</a> Dynamic DNS (Domain Name Service) is a method of keeping a domain name linked to a dynamic public IP address. In many cable/DSL connections, a dynamic public IP address is assigned for every connecting request, You can setup your DDNS service here and the device will automatically update your DDNS host name if the public IP address is changed.
	Next

D-Link DCS-5610 User Manual

Section 3 - Configuration

If you want to access the DCS-5610 via mobile phone, click **Yes** and the video resolution will be set to 176x144.

Click **Apply** to apply the settings to the device.



IP Camera Installation         Step 1>> System         Step 2>> Network Setting         Step 3>> Ports         Image: S
System/Date         Network         Ports         Dynamic DNS         If you would like to change the above settings, please click on the "Back" button.Click on the "Apply" button to apply the
Apply

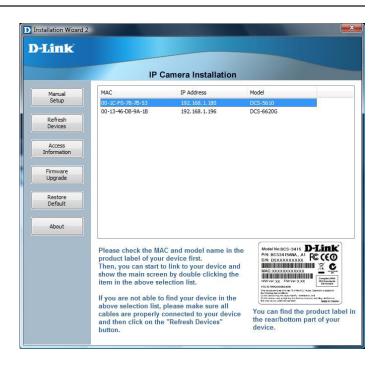
Installation Wizard 2 - Setup Your Device

**D-Link** 



X

Double-click the **DCS-5610** to launch the camera's web configuration page.



# **Web-based Configuration Utility**

This section will show you how to configure your new D-Link Internet Camera using the Web-based Configuration Utility.

To access the configuration utility, open a web-browser such as Internet Explorer and enter the IP address of your Internet Camera (http://192.168.0.120)

*Note:* In the example, this address is 192.168.0.120. Your address may differ.

Type **Admin** in the user name field and leave the password blank by default.

*Note:* You may refer to page 51 to change the password for your admin account.



~
sword
Cancel

#### Click OK

### Live Video Camera

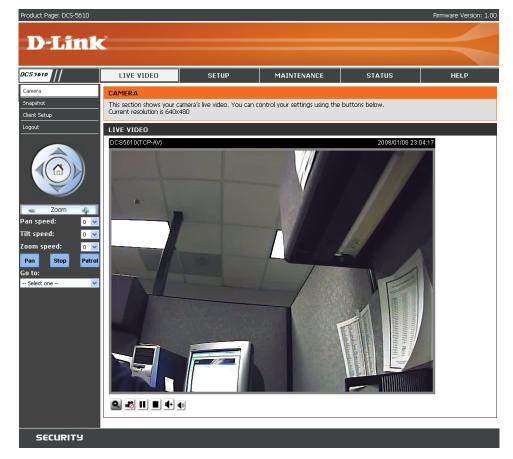
This section shows your camera's live video. You can control your settings using the buttons below.

**Zoom:** "-" zooms out, and "+" zooms in.

- Pan Speed: Select the speed at which the camera will pan.
- Tilt Speed: Select the speed at which the camera will tilt.
- **Zoom Speed:** Select the speed at which the camera will zoom or focus.

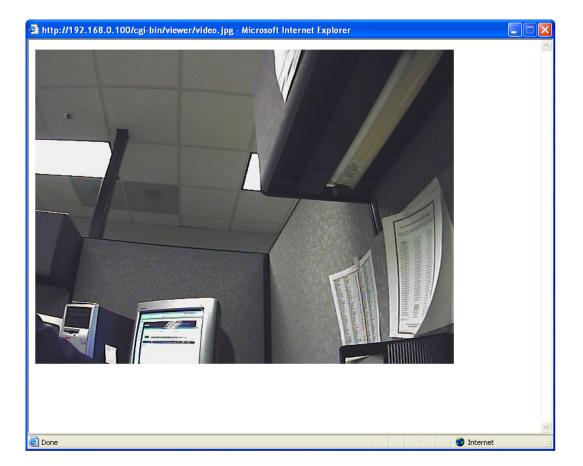
Pan: Pans the camera one full cycle.

- Stop: Stops movement of the camera during pan.
- Patrol: Enables the Patrol feature, please see page 50.
- Go to: Select a preset position where the camera will point.



### **Snapshot**

This section shows a snapshot image from your camera's live video.



### **Client Setup**

You may configure and select the setting for your media streaming and recording

**Stream Options:** You can select which video stream profile to use.

- Media Options: Allows the user to determine whether to receive only video, audio, or both video & audio.
- **Protocol Options:** There are 4 protocols for you to choose for the video streaming.
  - **UDP Protocol:** This is recommended because it is an ideal protocol for transmitting real-time audio and video data, which can tolerate some lost packets.
  - UDP Unicast: Will stream to a single computer.
  - UDP Multicast Will stream to multiple computers using multicast.
    - **TCP:** Provides higher quality video streaming than UDP does. It provides error correction and guarantees packet to be delivered to client. However, transmission speed will be reduced.
  - HTTP Protocol: Offers the highest image and video quality. However, packet losses will diminish image quality when bandwidth becomes restricted. If the network is protected by a firewall and it opens HTTP port (80) only, HTTP protocol must be selected. In this mode,



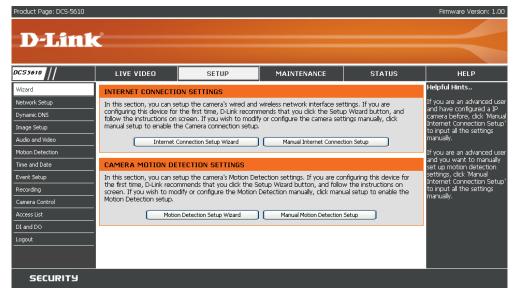
audio is disabled and only video can be viewed. UDP connections will not be available to remote users if all four ports have not been forwarded (as shown on page 32). Only the HTTP port must be forwarded for remote users to make an HTTP connection (video only).

**Record Options:** Allows the user to specify a destination folder and prefix filename for the recorded video.

### **Setup** Wizard

To quickly configure your internet camera, click **Internet Connection Setup Wizard** or click **Manual Internet Connection Setup** to manually configure your internet camera.

To quickly configure your internet camera's motion detection settings, click **Motion Detection Setup Wizard** and skip to page 29. If you want to enter your settings without running the wizard, click **Manual Motion Detection Setup** and skip to page 39.



### **Internet Connection Setup Wizard**

This wizard will guide you through a step-by-step process to configure your new D-Link Camera and connect the camera to the internet. Click **Next** to continue.



Select **DHCP** if you are unsure which settings to pick. Click **Next** to continue and skip to page 27.

k.	STEP 1: SETUP LAN SETTINGS		
	Please select whether your camera will connect to the Internet with a DHCP connection or Static IP address. If your camera is connected to a router, or you are unsure which settings to pick, D-Link recommends that you keep the default selection of DHCP connection. Otherwise, click on Static IP address to manually assign and IP address before clicking on the Next button.		
	⊙ DHCP		
	○ PPPoE		
	◯ Static IP Client		
	IP address	192.168.0.100	
	Subnet mask	255.255.255.0	
	Default Gateway	192.168.0.1	
	Primary DNS	192.168.0.1	
	Secondary DNS		
	Back Next Cancel		

#### Click Next

Select **PPPoE** if the camera is directly connected to the Internet through a DSL modem, and the ISP (Internet Service Provider) requires you to use PPPoE for the Internet connection. Click **Next** to continue and skip to Step 2 on page 26.

#### STEP 1: SETUP LAN SETTINGS

Please select whether your camera will connect to the Internet with a DHCP connection or Static IP address. If your camera is connected to a router, or you are unsure which settings to pick, D-Link recommends that you keep the default selection of DHCP connection. Otherwise, click on Static IP address to manually assign and IP address before clicking on the Next button.

PPPoE     Static IP Client	
IP address	192.168.0.100
Subnet mask	255.255.2
Default Gateway	192.168.0.1
Primary DNS	192.168.0.1
Secondary DNS	
Bad	Next Cancel

Select **Static IP** if your Internet Service Provider has provided you with connection settings, or you wish to set a static address within your home network. Click **Next** to continue.

STEP 1: SETUP LAN SETTINGS			
Please select whether your camera will connect to the Internet with a DHCP connection or Static IP address. If your camera is connected to a router, or you are unsure which settings to pick, D-Link recommends that you keep the default selection of DHCP connection. Otherwise, click on Static IP address to manually assign and IP address before clicking on the Next button.			
ODHCP	ODHCP		
○ PPP₀E			
⊙ Static IP Client			
IP address	192.168.0.100		
Subnet mask	255.255.255.0		
Default Gateway	192.168.0.1		
Primary DNS	192.168.0.1		
Secondary DNS			
Back Next Cancel			

#### Click Next

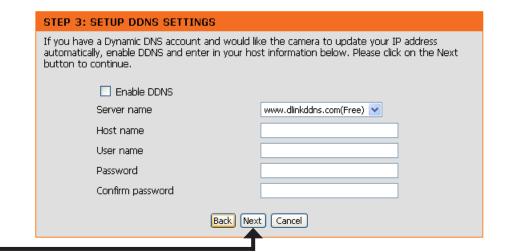
If you have selected PPPoE, enter your username and password. Click **Next** to continue.

#### STEP 2: SETUP INTERNET SETTINGS

Please enter your ISP Username and Password. This will be the case if your ISP uses PPPoE. Contact your ISP if you are unsure.

	User name		
	Password		
	Confirm password		
Back Next Cancel			
		Ē	

If you have a Dynamic DNS account and would like the camera to update your IP address automatically, enable DDNS and enter your host information. Click **Next** to continue.



Click Next

Enter a name for your camera and click **Next** to continue.

#### STEP 4: SERVER NAME SETTINGS

D-Link recommends that you rename your camera for easy accessibility. You can then identify and connect your camera via this name. Please click on Next button.

	Camera Name	DC55610
	Back Ne	xt Cancel
Click Next		

Configure the correct time to ensure that all events will be triggered, captured and scheduled at the right time. Click **Next** to continue.

#### STEP 5: SETUP TIME ZONE

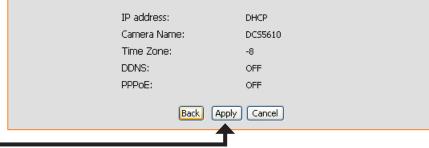
Please configure the correct time to ensure that all events triggered, captured and scheduled at the correct time and day and then click on the Next button.

Current Time	07 Jan 2008 01:35:53				
Time Zone	GMT-08:00 La:	GMT-08:00 Las Vegas, San Francisco, Vancouver			~
Enable Daylight Saving					
Daylight Saving Dates	5	Month	Week	Day of Week	Time
	DST Start	Oct 💌	2nd 🔽	Sun 🔽	1 am 🔽
	DST End	Mar 💌	1st 💌	Sat 💌	1 am 💌
		Back Next	Cancel		

If you have selected **DHCP**, you will see a summary of your camera's settings. Please note down all this information as you will need it for accessing your camera within the network. Click **Apply** to save your settings.

#### **STEP 6: SETUP COMPLETE**

Below you should see a summary of your camera settings. Click back to review or modify settings. Click Restart to apply the settings below. Please note these settings as you will require this information when accessing your camera on the network or via your web browser.



Click Apply

If you have selected **PPPoE**, you will see a summary of your camera's settings. Please note down all this information as you will need it for accessing your camera within the network. Click **Apply** to save your settings.

#### **STEP 6: SETUP COMPLETE**

Below you should see a summary of your camera settings. Click back to review or modify settings. Click Restart to apply the settings below. Please note these settings as you will require this information when accessing your camera on the network or via your web browser.

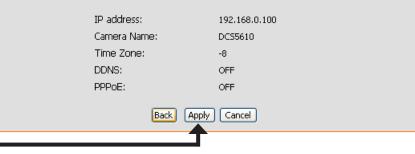
IP address:	PPPoE
Camera Name:	DC55610
Time Zone:	-8
DDNS:	OFF
PPPoE:	ON
Back	Apply Cancel
	T

#### Click Apply

If you selected **Static IP**, you will see a summary of your camera's settings. Please note down all this information as you will need it for accessing your camera within the network. Click **Apply** to save your settings.

#### STEP 6: SETUP COMPLETE

Below you should see a summary of your camera settings. Click back to review or modify settings. Click Restart to apply the settings below. Please note these settings as you will require this information when accessing your camera on the network or via your web browser.



Click Apply

### **Motion Detection Setup Wizard**

This wizard will guide you through a step-by-step process to configure your new D-Link Camera motion detection functions. Click **Next** to continue.



This section will allow you to enable or disable motion detection as well as control the sensitivity or your camera's ability to detect movement. Specify the window area, window name and sensitivity of detection as well as the type of recording (either snapshot of video clip). Then, click **Next** to continue.

STEP 1: SPECIFY MOTION DETECTION AREA SETTINGS

This section will allow you to enable or disable motion detection as well as control the sensitivity of your camera's ability to detect movement. Please specify the window area, window name and sensitivity of detection before clicking on the Next button.

Enable motion detection 💿 Snanshot 🔿 Video Clin

	·····	
DCS5610(TCP-AV)	2008/01/07 01:57:28	
		Window Name:
		Sensitivity:
	II other	J 0,%
	A STATE	Percentage:
	- Will Support	, 0,%
	ETE 1	
		New Save
	Back Next Cancel	]
	<b></b>	

This section will allows you to specify the time and date your camera records motion.

**Note:** Recording camera footage will take up space on your hard drive. Its recommended that you have sufficient disk space for **Always** function.

#### Click Next

This step allows you to specify how you will receive the events notification of your camera, either via using email or FTP. You will need to enter all the relevant information for your email account or FTP settings. Then, click **Next** to continue.

#### STEP 3: ALERTS AND NOTIFICATION

**STEP 2: MOTION DETECTION SCHEDULE** 

Time 💿 Always

This final step allows you to specify how you receive notification of camera events. Choose between an email notification or alternatively you can setup an FTP Notification. You will need your email account settings or FTP details. If you are unsure of this information, please contact your ISP. Once you have entered this information, please click on the Next button.

This section allows you to specify the time and dates that your camera records motion. Please note that recorded camera footage will take up space on your hard drive. It is therefore

🗹 Sun 🗹 Mon 🗹 Tue 🗹 Wed 🗹 Thu 🗹 Fri 🗹 Sat

○ From 00 ♥ 00 ♥ to 24 ♥ 00 ♥

Back Next Cancel

recommended that you have sufficient disk space for 'Always' function.

Notify me by E-mail   User name   Password   SMTP(mail) Server   Return E-mail Address   Recipient email address   Recipient email address   Vser name   Password   Server address   Server address   Remote folder name   Server port   21   Passive mode	💿 Do not notify me	
Password	○Notify me by E-mail	
SMTP(mail) Server	User name	
Return E-mail Address   Recipient email address   Notify me by FTP   User name   Password   Server address   Remote folder name   Server port   21   Passive mode	Password	
Recipient email address   Notify me by FTP   User name   Password   Server address   Remote folder name   Server port   21   Passive mode	SMTP(mail) Server	
Notify me by FTP   User name   Password   Server address   Remote folder name   Server port   21   Passive mode	Return E-mail Address	
User name  Password Server address Remote folder name Server port Passive mode	Recipient email address	
Password     Image: Constraint of the server address       Server address     Image: Constraint of the server port       Server port     21       Passive mode     Image: Constraint of the server port	○ Notify me by FTP	
Server address Remote folder name Server port Passive mode	User name	
Remote folder name       Server port       21       Passive mode	Password	
Server port 21 Passive mode	Server address	
Passive mode	Remote folder name	
	Server port	21
Back Next Cancel	Passive mode	
<b></b>	Back	Next Cancel

You have completed the Motion Detection Wizard. Click **Apply** to save your settings.

#### STEP 4: SETUP COMPLETE

You have completed your camera setup. Please click the Back button if you want to review or modify your settings or click on the Apply button to save and apply your settings.

Motion Detection:	Disable	
Event:	Take Snapshot	
Schedule Day:	Sun, Mon, Tue, Wed, Thu, Fri, Sat	
Schedule Time:	Always	
Alerts and Notification:	Do not notify me	
Back Apply Cancel		

Click Apply

### **Network Setup**

LAN Settings: Settings for your local area network.

- **DHCP:** Select this connection if you have a DHCP server running on your network and would like a dynamic IP address to be updated to your camera automatically.
- Static IP Client: You may obtain a static or fixed IP address and other network information from your network administrator for your camera. A static IP address will ease you for accessing your camera in the future.

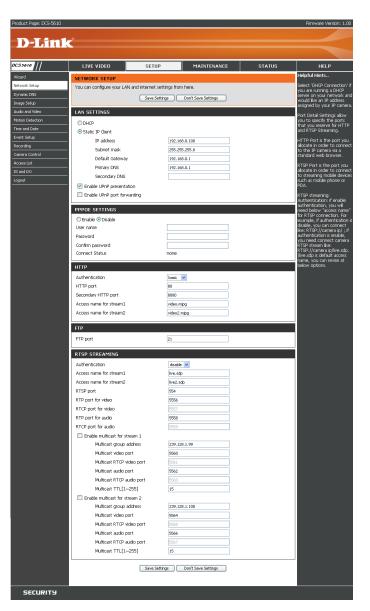
IP Address: The fixed IP address.

- **Subnet Mask:** The default value is "255.255.255.0." Used to determine if the destination is in the same subnet.
- **Default Gateway:** The gateway used to forward frames to destinations in a different subnet. Invalid gateway settings may cause the failure of transmissions to a different subnet.
  - Primary DNS: Primary domain name server that translates names to IP addresses.

Secondary DNS: Secondary domain name server to backup the primary one.

**Enable UPnP** Allows a user to find, view and control this camera via a presentation page **Presentation:** or "Network Neighborhood" without configuration.

- Enable UPnP Port Enables the camera to add the port forwarding entry into the router Forwarding: automatically when this option is enabled.
- **PPPoE Settings:** Enable this setting if your ISP (DSL service) is using PPPoE. You may already have both **Username** and **Password** given by your ISP, or you may check with your ISP. The **Connect Status** will be determined automatically by the system.



- HTTP: You may configure two HTTP ports for your camera. HTTP ports allow you to connect to the camera via a standard web browser. These ports can be set to a number other than the default TCP ports 80 and 8080. A corresponding port must be opened on the router. For example, if the port is changed to 1010, users must type in the web browser "http://192.168.0.100:1010" instead of "http://192.168.0.100".
- Authentication: Authentication: Choose either **Basic** where the password is not encrypted, or **Digest** where the password is encrypted during the transmission to the web server.

HTTP Port: The default value is 80.

Secondary HTTP The default value is 8080.

Port: After you have enabled the Authentication, you will need to configure and use the access name to access your video file. For example, http://camera ip/video.mjpg (video.mjpg is the Access name, you can modify it here)

Access name for The default name is video.mjpg. stream1:

- Access name for The default name is video2.mjpg. stream2:
  - FTP Port: Default port is 21. If you want to change the port number, you will need to specify the port when connecting to the FTP server. For example FTP://68.5.1.81:60 (if you use port 60 for your FTP server)
- RTSP Streaming: This setting enables you to connect to a camera by using streaming mobile device(s), such as a mobile phone or PDA.
  - Authentication: Choose either **Basic** where the password is not encrypted, or **Digest** where the password is encrypted during the transmission to the web server. After you have enabled the **Authentication**, you will need to configure and use the access name to access your video file. **RTSP://camera ip/live.sdp** (live.sdp is the default access name, you can modify it here)

Access name for The default name is live.sdp. stream1:

Access name for The default name is live2.sdp. stream2:

RTSP port: The port number that you use for RSTP streaming, the default port number is 554. RTP (Real Time Protocol) Port is used to streaming audio and video while RTCP (Real Time Control Protocol) port is used to monitor QoS of RTP stream. *Note:* RTP video port and RTP audio port must be an "even" number. The numbers of RTCP video port and RTCP audio port must equal to the numbers of RTP video port and RTP audio port and RTP audio port, plus one repetitively

RTP port for video: Default port number is 5556.

RTCP port for video: Default port number is 5557.

RTP port for audio: Default port number is 5558.

RTCP port for audio: Default port number is 5559.

You may choose to enable multicast for your camera audio and video streaming so that your **cameras (sources)** and the **receivers (clients)** can establish the connection to send and receive contents.

Multicast group An IP Multicast group address is used to send and receive content. Sources use this group address as the destination address: address while sending their data packets. Receivers use this group address to inform the network that they are interested in receiving packets sent to that group.

For example, if some content is associated with group 239.1.1.1, the source will send data packets destined to 239.1.1.1. Receivers for that content will inform the network that they are interested in receiving data packets sent to the group 239.1.1.1. The receiver "joins" 239.1.1.1. The Multicast address ranges from 224.0.0.0 to 239.255.255.255, or, equivalently, 224.0.0.0/4

Multicast video port: Default port number is 5560, or please choose between 1024 and 65534.

Multicast RTCP video Default port number is 5561, or please choose between 1024 and 65534. port:

Multicast audio port: Default port number is 5562, or please choose between 1024 and 65534.

Multicast RTCP audio Default port number is 5563, or please choose between 1024 and 65534. port:

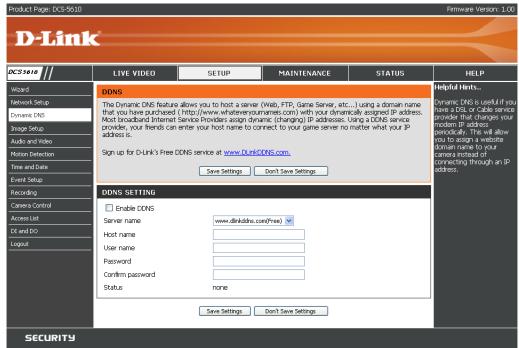
Multicast TTL Set a Time to Live(TTL) value for multicast packet, please choose between 1 and 255. {1~255]:

### **Dynamic DNS**

DDNS (Dynamic Domain Name Server) will hold a DNS host name and synchronize the public IP address of the modem when it has been modified. The username and password are required when using the DDNS service.

**Enable DDNS:** Click to enable the DDNS function.

- Server Name: Select your Dynamic DNS provider from the pull down menu.
  - Host Name: Enter the host name of the DDNS server.
  - Username: Enter your username or e-mail used to connect to the DDNS
  - Password: Enter your password used to connect to the DDNS server.
    - Status: Indicate the connection status, automatically determined by the system.

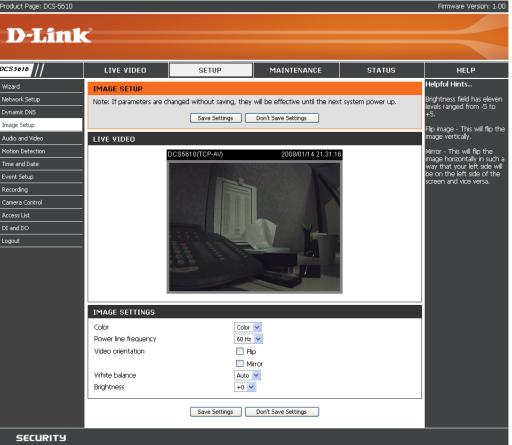


### Image Setup

You may configure the color, brightness, and orientation settings of the video image. Preview of the image will be shown in the window of Live Video. Click **Save Settings** to save your changes.

Color: Select either for Color or B/W (black and white, monochrome) video display.

- Power line You may need to choose 50 or 60 Hz frequency; frequency: and nonetheless maintain the system operation at a basic 50 Hz frequency.
- Video orientation: Two options. Flip will vertically rotate the video while Mirror will horizontally rotate the video. You may check both options if the camera is being installed upside down.
  - White balance: Choose either Auto or Fix white balance.
    - **Brightness:** It has eleven levels ranged from -5 to +5 for you to choose.



## **Audio and Video**

Two different settings for two video streams (stream 1 and stream 2) can be configured here. You may configure one setting for computer display and the other one for mobile display.

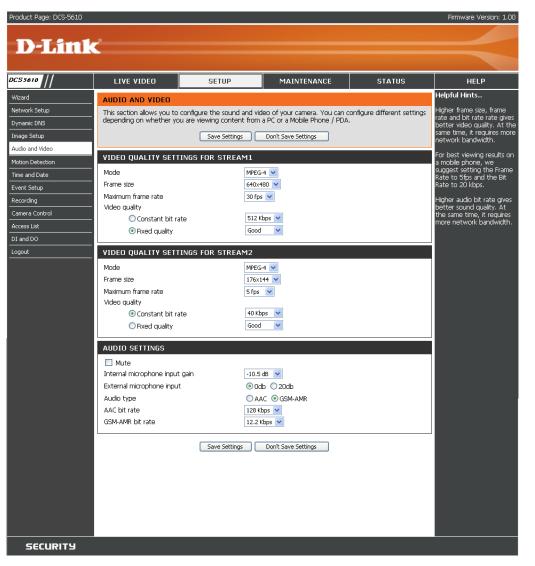
- Mode: It can be either JPEG or MPEG4. In JPEG mode, the video frames are independent. However, MPEG4 consumes much less network bandwidth than JPEG.
- Frame Size: Frame Size: Three options exist for the sizes of the video display. You can select between 176x144, 352x240, or 640x480. It is recommended using 176x144 for mobile viewing and 640x480 for computer viewing.
- Maximum frame 1 is the minimum value while 30 is the maximum rate: value. It is recommended choosing 30 for computer viewing and 5 for mobile viewing.
  - Video quality: This limits the maximal refresh frame rate, which can be combined with the "Fixed quality" to optimize the bandwidth utilization and video quality. If the User wants to fix the bandwidth utilization regardless of the video quality, choose "Constant bit rate" and select the desired bandwidth.

Mute: Select this if you want to switch off the sound.

Internal Select from the list to set internal microphone microphone input input gain. It is necessary to find the optimum gain: gain that transmits the best audio to whoever is

ain: gain that transmits the best audio to whoever is listening.

Note: dB stands for decibels, unit of audio



measurement. More decibels as a positive value indicates that the sound is louder, while more decibels as a negative value indicates that the sound is quieter.

**External** Select from the list to set external microphone input gain.

#### microphone input:

- Audio type: AAC (Advanced Audio Coding): A wide band audio coding algorithm that exploits two primary coding strategies to dramatically reduce the amount of data needed to convey high-quality digital audio. Select a higher bit rate number for better audio quality.
- **GSM-AMR:** A standard adapted audio codec by the 3GPP video (3rd Generation Partnership Project). It is an Adaptive Multi Rate-Narrow Band (AMR-NB) speech codec. Select a higher bit rate number for better audio quality.
- AAC bit rate: Please select from the list, higher bit rate means higher audio quality but it takes more network bandwidth to transmit.
- **GSM-AMR bit** Please select from the list, higher bit rate means higher audio quality but it takes more network bandwidth to transmit. rate:

## **Motion Detection**

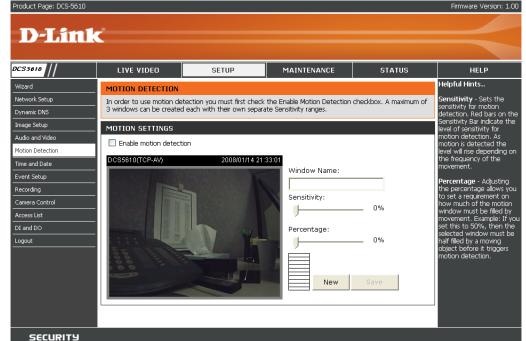
Enabling Motion Detection will allow up to three windows that can be created with different settings for monitoring. This allows your camera to serve as a security device that will record when motion is detected.

- Enable motion Check this option to turn on the motion detection. detection:
- Window name: Create your own name for the monitored area/ window. It will show at the top of the motion window.
  - **Sensitivity:** Set the measurable difference between two sequential images that would indicate motion.
  - **Percentage:** Set the amount of motion in the window being monitored that is required to initiate a motion detected alert. If this is set to 100%, this means that motion is detected within the whole window to trigger a snapshot.

**Note:** Setting a higher sensitivity and a lower percentage will make any motion more easily.

New: Click to add a new window. A maximum of three motion windows can be opened simultaneously. Use your mouse to drag the window frame to re-size or the title bar to move. Clicking on the '**x**' at the upper right corner of the window will close the window.

Save: Save the related settings of that window.



## **Time and Date**

From this section, you may automatically or manually configure, update and maintain the internal system clock for your camera.

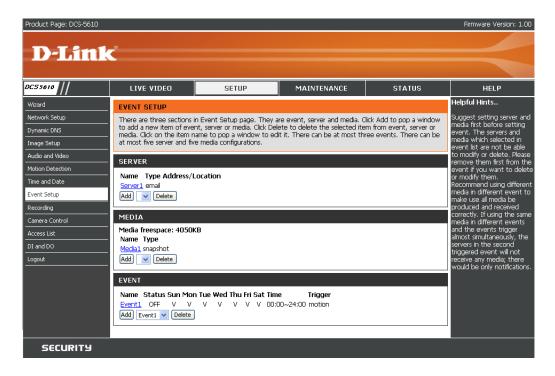
- Current Server Will be determined by the system. Time:
  - Time Zone: Select your time zone from the drop-down menu.
- Enable Daylight Select this to enable the daylight saving time. Saving:
- **Daylight Saving** You may configure the daylight saving date and **Dates:** time.
- Automatic Time Enable this feature to obtain time configuration Configuration: automatically from NTP server.
  - NTP Server: Network Time Protocol (NTP) synchronizes the DCS-5610 with an Internet time server. Choose the one that is closest to your location.
- **Update Interval:** The time interval for updating the time information from NTP server.
- Set the date and This option allows you to set the time and date time manually: manually.

Copy Your This will synchronize the time information from Computer's Time your PC. Settings:

Product Page: DCS-561	כ					Firmware Version: 1.
<b>D-Lin</b>						
DC55610		SETUP	MAINTEN	ANCE	STATUS	HELP
Wizard	TIME AND DATE	1	1			Helpful Hints
Network Setup		ption allows you to configure	e undate and ma	intain the cor	rect time on the internal	Good timekeeping is
Dynamic DNS	system clock. From this se	ection you can set the time z Saving can also be configure	zone that you are	in and set the	e NTP (Network Time	important for accurate lo and scheduled firewall ru
Image Setup	Protocor) Server, Dayigri				me when neeueu.	
Audio and Video		Save Settings	Don't Save Setting	is		
Motion Detection	TIME CONFIGURATIO	IN				
ime and Date						
Event Setup	Current Server Time: Time Zone:	14 Jan 2008 21:33:29 GMT-08:00 Las Vegas, San Fra			~	
lecording	Enable Daylight Saving:	GMT-00:00 Las Vegas, San Fra	ancisco, vancouver		v	
amera Control	Daylight Saving Dates:	Month	Week	Day of Week	Time	
Access List		DST Start Oct 💌	2nd 💌	Sun 💌	1 am 💌	
)I and DO		DST End 🛛 Mar 💌	1st 💌	Sat 💌	1 am 💌	
ogout						
	AUTOMATIC TIME CO	ONFIGURATION				
	🔘 Enable 💿 Disable					
	NTP server:		< Select NTP Se	erver 💙		
	Update interval:	ne hour 💉				
	SET THE DATE AND					
	Year 2008		01 🗸	Day .	14 🗸	
	Hour 21 🗸		33 🔽	Second	29 💙	
		L Copy Your Comp	uter's Time Settings			
		Save Settings	Don't Save Setting	15		
CCCUDITU						
SECURITY						

## **Event Setup**

There are three sections in Event Setup page. They are **Event**, **Server** and **Media**. Click **Add** to pop up a window to add a new item of event, server or media. Click **Delete** to delete the selected item from the pull-down menu of event, server or media. Click on the item name to pop up a window for modifying. You can add up to three events, five servers and five medias.



### Add Server

Up to 5 servers, where will store the media with its own settings can be created and configured here.

Server Name: Unique name of your server.

- Email: Select this to enable and apply your email account setting for your camera.
  - FTP: Select this to access a granted folder on the external FTP server.
- HTTP: Select this to use a web server to store the media.

Network Storage: Only one network storage is supported.

D-Lin		SETUP	MAINTENANCE	STATUS	HELP
Wizard		SETUP	MAINTENANCE		Helpful Hints
Network Setup	SERVER				"Server name" The
Dynamic DNS	You can set at most 5 di	fferent servers here for diffe	rent event.		unique name for server. There are four kinds of
(mage Setup		Test Save Settings	Don't Save Settings		servers supported. They
Audio and Video	SERVER TYPE				are email server, FTP server, HTTP server and
Motion Detection	Server name:				network storage.
Time and Date	Server name:     O     Email				Email server: "Sender email address"
Event Setup	Sender email a	ddrocs			The email address of the sender.
Recording	Recipient emai				"Recipient email
Camera Control	Server address				address" The email address of the recipient.
Access List	User name				FTP server:
DI and DO	Password				"Remote folder name" Granted folder on the
.ogout	OFTP				external FTP server. The string must conform to that
	Server address				of the external FTP server.
	Server port	21			Some FTP servers cannot accept preceding slash symbol before the path
	User name				without virtual path
	Password				mapping. Refer to the instructions for the external FTP server for details. The folder privilege must be
	Remote folder	name			
	Passive mo	ode			open for upload. "Passive Mode" Check it
	OHTTP				to enable passive mode in transmission.
	URL	http:	7		
	User name				HTTP server: "URL" The URL to upload
	Password				the media. Only one network storage
	Network storage				is supported.
	Network stora	ge location			"Network storage location" The path to upload the media.
		\\my_nas\disk\folder)			"Workgroup" The
	Workgroup				workgroup for network storage.
	User name				After input the setting of server, user can click on
	Password				Test to test whether the setting is correct. The
	Primary WINS :	server			testing result will be shown in a pop-up window.
		Test Save Settings	Don't Save Settings		

### **Add Media**

Up to 5 media for recording with its own settings can be created and configured here. There are three types of media, Snapshot, Video Clip and System Log.

Media Name:	The unique name for media.
Snapshot:	Select this feature to enable camera to take snapshot.
Source:	The source of stream, stream1 or stream2.
Send pre-event image(s) [0~7]:	The number of pre-event images.
Send post-event image(s) [0~7]:	The number of post-event images.
File name prefix:	The prefix name will be added on the file name of the snapshot images.
Add date and time suffix to file name:	Check it to add timing information as file name suffix.
Video clip:	Select this feature to enable camera to take video clip.

- **Source:** The source of stream, stream1 or stream2.
- Pre-event recording: The interval of pre-event recording in seconds.
- Maximum duration: The maximal recording file duration in seconds.
- Maximum file size: The maximal file size would be generated.
  - File name prefix: The prefix name will be added on the file name of the video clip.

System log: Select this feature to enable camera to display system log.



### Add Event

Up to 3 events with its own settings can be created and configured here. Meanwhile, you can schedule the events here.

Event name: Unique name for the event.

Enable this event: Select this to activate this event.

- **Priority:** Set the priority for this event and the event with higher priority will be executed first.
- **Delay:** The delay time before checking next event. It is being used for both events of motion detection and digital input trigger.

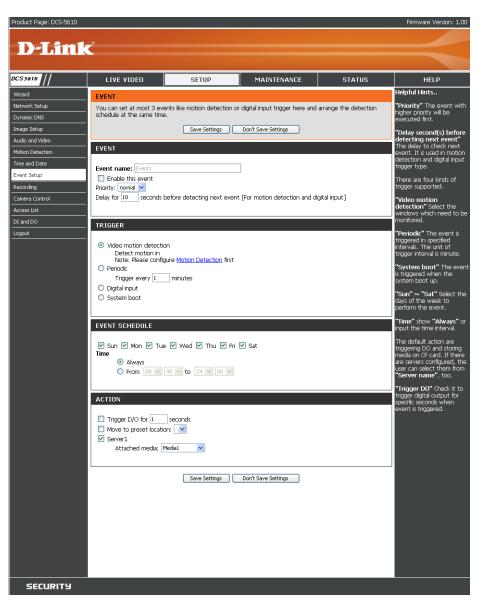
Trigger: The input type that triggers the event.

- Video motion Motion is detected during live video monitoring. Select detection: the windows that need to be monitored.
  - **Periodic:** The event is triggered in specified intervals. The unit of trigger interval is minute.
- Digital input: External trigger input to the camera.
- System boot: The event is triggered when the system boot up.

Time: Either "Always" or input the time interval.

**Trigger D/0:** Check it to trigger digital output for specific seconds when event is triggered. The default actions are triggering the D/O and storing the media on a CF card.

Move to preset If there is a server(s), user can select the available location: server(s) from Move to preset location.



D-Link DCS-5610 User Manual

## Recording

Here you can configure and schedule the recording. You may add new entry or delete an existing entry via this page.

**Recording entry:** Available entry(s) is displayed here with its details.

Add: Click this button to add new entry.

Delete: Delete an existing entry.



### Add Recording

You can add and configure an entry here.

Recording entry The unique name of the entry. name:

**Enable this** Select this to enable the recording function. **recording:** 

**Priority:** Set the priority for this entry and the entry with higher priority will be executed first.

Source: The source of stream.

Recording schedule: Scheduling the recording entry.

- Recording settings: Configuring the setting for the recording.
  - **Destination:** Select the folder where will store the recording file.
  - **Total cycling** Please input a HDD memory volume between **recording size:** 1MB and 200GB for recording space. The recording data will replace the oldest one when total recording size exceeds this value. For example, if each recording file is 6MB, and the

Product Page: DCS-5610					Firmware Version: 1.00
<b>D-Link</b>	Č				
DC55610	LIVE VIDEO	SETUP	MAINTENANCE	STATUS	HELP
Wizard	RECORDING				Helpful Hints
Network Setup		Save Settings	Don't Save Settings		
Dynamic DNS					
Image Setup	RECORDING				
Audio and Video	Recording entry name:				
Motion Detection					
Time and Date	Enable this recording Priority: normal				
Event Setup	Source: Stream1 V				
Recording					
Camera Control	RECORDING SCHEDU				
Access List	RECORDING SCHEDU	LC			
DI and DO	🗹 Sun 🗹 Mon 🗹 Tu	e 🗹 Wed 🗹 Thu 🗹 Fri	🗹 Sat		
Logout	Time				
	Always     From 00:00	to 24:00 [hh:mm]			
		to znoo [mann]			
	RECORDING SETTING	S			
	Destination 🔽				
	Total cycling recording size	e: 500 Kbytes			
	Size of each file for record		000]		
	File Name Prefix:				
	·		n ha aw		
		Save Settings	Don't Save Settings		
SECURITY	1				

total cycling recording size is 600MB, then camera will recording 100 files to the specified location (folder). And then the camera will delete the oldest file and create new file for cycling recording.

Please notice that if the HDD empty space is not enough, the recording will stop. Before you setup this option please make sure you HDD have enough space and it is better not to save other files in the same folder as recording files.

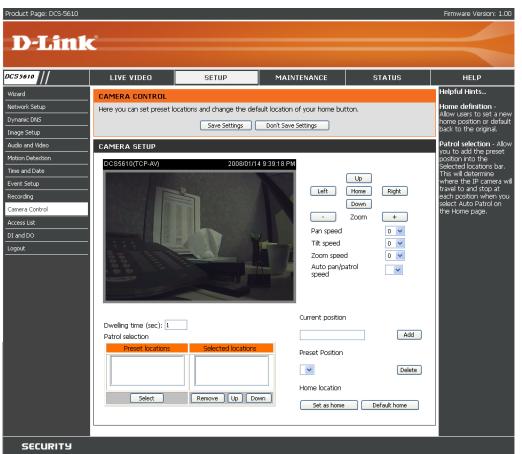
Size of each file for File size for each recording file. You may input the value in the range of 200-6000. recording:

File Name Prefix: The prefix name will be added on the file name of the recording file(s).

## **Camera Control**

Here you can preset the locations and change the default location for your home button.

- Up, Down, Left, "Home" aims the camera to the center, Right, Home: where as the other buttons aim the camera accordingly.
  - Zoom (-): Zoom widely function.
  - Zoom (+): Zoom telescopically function
  - Pan Speed: Select the speed at which the camera will pan for a full cycle from the pull down menu. Select a value between -5 and +5, -5 being the slowest setting.
  - **Tilt Speed:** Select the speed at which the camera will tilt for a full cycle from the pull down menu. Select a value between -5 and +5, -5 being the slowest setting.
  - **Zoom Speed:** Select the speed at which the camera will zoom for a full cycle from the pull down menu. Select a value between -5 and +5, -5 being the slowest setting.
- Auto pan/patrol Select the speed at which the camera will pan speed: during auto patrol. Select a value between 1 and 5, 1 being the slowest setting.



- **Dwelling time (sec):** Set the value of time that the camera will remain on each preset position before moving to the next. The dwelling time can be set between 1 and 255 seconds.
  - **Preset locations:** Desired positions that have been configured.
- Selected locations: To use the Auto Patrol feature, select the desired preset positions from the **Preset Locations** list and add them to the **Selected Locations** list by clicking Select. You can then select the order in which the camera will patrol through the preset locations by selecting a location and clicking **UP** or **DN**. Click **Remove** to remove a location from the list.

**Current** Enter a name for the position at which you would like to preset the **DCS-5610**. Click **Add** to add the new preset position to **Position:** the **Preset Locations** list.

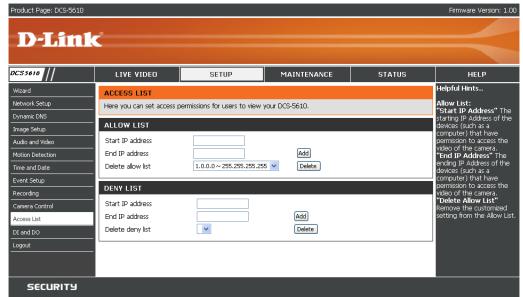
**Preset** A pull-down menu that contains all the preset locations. You can delete a preset position by selecting it and clicking **Delete**. **Position:** 

**Home** Allow users to set a new home position or default back to the original. **Location:** 

## **Access List**

Here you can configure the access permissions for each user.

- Allow list: The list of IP addresses that have the access right to the camera.
- Start IP address: The starting IP Address of the devices (such as a computer) that have permission to access the video of the camera.
- End IP address: The ending IP Address of the devices (such as a computer) that have permission to access the video of the camera.
- Delete allow list: Remove the customized setting from the Allow List.
  - **Deny list:** The list of IP addresses that have no access right to the camera.
- **Delete deny list:** Remove the customized setting from the Delete List.



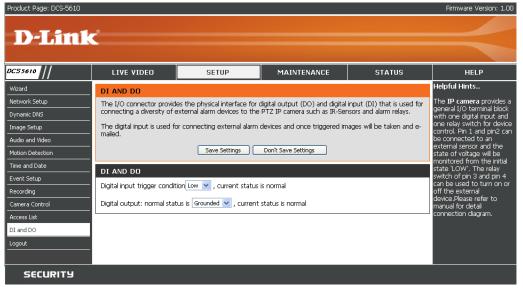
## **DI** and **DO**

The I/O connector provides the physical interface for digital output (DO) and digital input (DI) that is used for connecting such external alarm devices as IR-Sensors and alarm relays to the PTZ IP camera.

**DI and DO:** Setting for both Digital input signal and digital output signal can be configured here.

**Digital input trigger** Please select from "**High**" or "**Low**" for digital input **condition:** trigger condition. When external device connect to the digital input pins, the state of the voltage will be monitored. (Max. Input 500mA, 12Vdc)

**Digital output:** Select **Grounded** or **Open** to define normal status of the digital output. The camera will show whether the trigger is activated or not.



## Maintenance Device Management

You can modify both camera's name and administrator's password of your camera, as well as add more user accounts for accessing the camera.

Admin password Modify a password for the administrator's setup: account.

Add user account: Add new user account.

**Username:** The username for the new account.

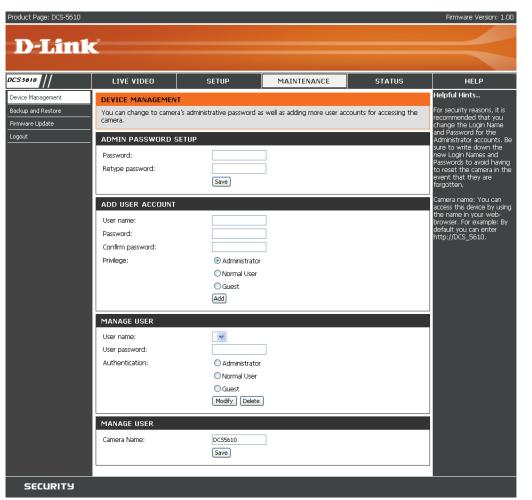
Password: The password for the new account.

Privilege: The access right for the new user.

Manage user: Managing the accounts for the existing users.

Authentication: The access right for the existing users.

**Camera Name:** Create a unique name for your camera and you can access the camera using this name in your web-browser. For example: http://DCS-5610 (By default).

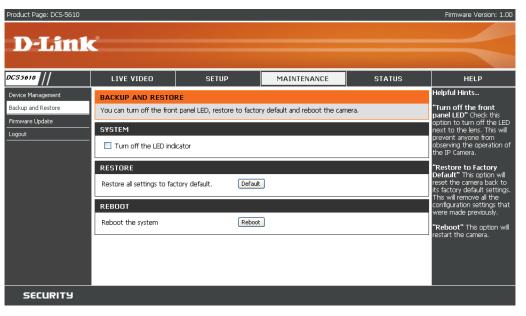


## **Backup and Restore**

You can turn off the front panel LED, restore factory default settings and reboot the camera.

- Turn off the LED Check this option to turn off the LED next to the indicator: lens. This will prevent anyone from observing the operation of the IP Camera.
  - **Restore:** Click the button will reset the camera back to its factory default settings. This will remove all the configuration settings that were made previously.

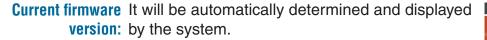
Reboot: Click the button will restart the camera.



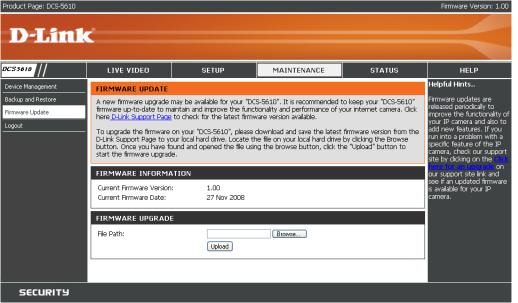
## **Firmware Update**

Your current firmware version and date will be displayed on your screen. You may go to the D-Link Support page to check for the latest firmware version available.

To upgrade the firmware on your DCS-5610, please download and save the latest firmware version from the D-Link Support page to your local hard drive. Locate the file on your local hard drive by clicking the **Browse** button. Then, open the file and click the "**Upload**" button to start the firmware upgrade.



- **Current firmware** It will be automatically determined and displayed **date:** by the system.
  - File Path: Locate the file (upgraded firmware) on your hard drive using the browse feature.
    - **Upload:** Start uploading and upgrading the new firmware to your camera.



## Status Device Info

This page displays all the details information about your device and network connection.

0055610	LIVE VIDEO	SETUP	MAINTENANCE	STATUS	HELP
Device Info	DEVICE INFO				Helpful Hints
Logs	All of your network conr	nection details are displayed or	n this page. The firmware vers	ion is also displayed here.	All of your WAN and LA connection details are
Logout	BASIC INFORMATIC	IN			displayed here.
	Camera Name: Date and Time: Firmware Version: IP address: Subnet mask: Default router: Primary DNS: Secondary DNS: PPP0E: DDNS:	Network Camera 14 Jan 2008 21:49:23 1.00, 27 Nov 2008 192:168.0.100 255.255.255.0 192:168.0.1 192:168.0.1 OFF OFF			

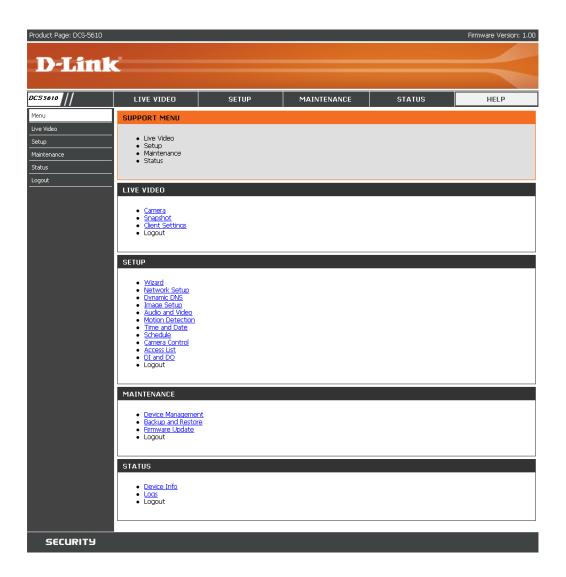
## Logs

This page displays the log information of your camera. You can configure a remote log server so that you can view your log details remotely.

- Enable remote log: Enabling this feature so that the camera can send camera log files to a remote server.
- Log server settings: Configure the setting for the log server.
  - **IP Address:** The IP address of the remote server.
    - **Port:** The port number of the remote log server. The default port is 514.
    - Save: Save the setting.
  - **Current Log:** The system log file that displayed by the system. The content of the file reveals useful information about camera configuration and connectivity status after the camera boots up.



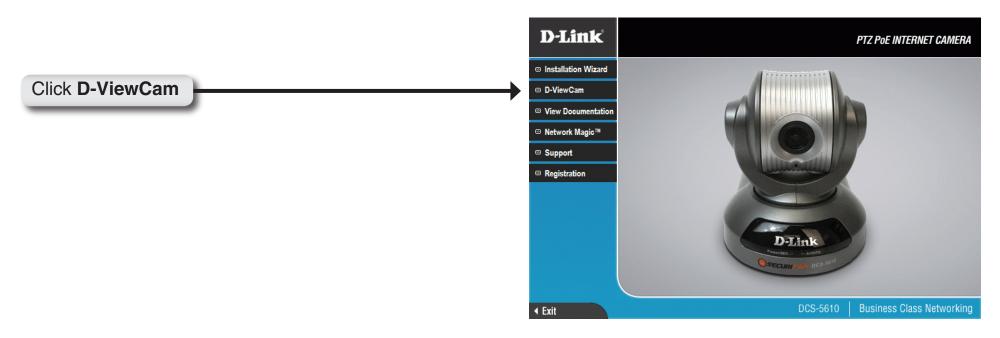
# Help



# **D-ViewCam Installation**

D-ViewCam software is included for the administrator to manage up to 32 D-Link IP cameras remotely. The administrator can use the software to configure the advances settings for the camera. D-ViewCam is a complete management tool and includes all configurative settings.

Insert the CD-ROM into the CD-ROM drive. A menu screen will appear as shown below.

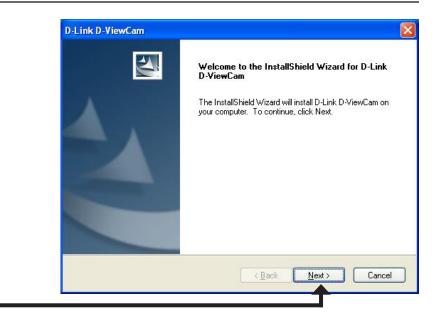


D-ViewCam provides English, Traditional Chinese and Simplified Chinese language versions. Select a language version and click OK to continue.



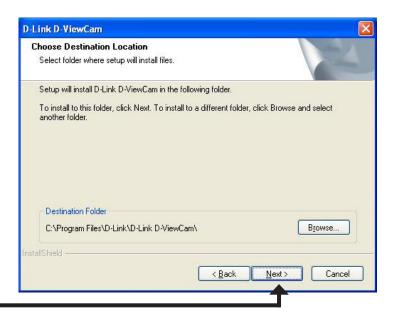
Click OK

#### Click Next to continue.



#### Click Next

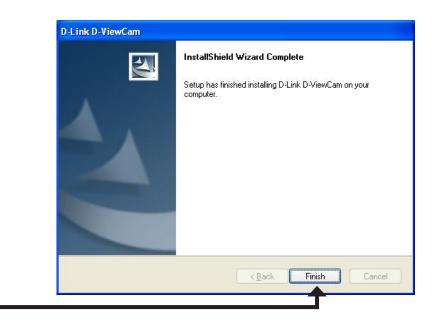
Click **Browse** if you would like to choose a specific folder for the installation, otherwise click **Next** to continue.



#### Click Next

Click Next to start the installation.
Note: The D-ViewCam installation process may take several minutes to complete.
Stat Copying Files
Review setings telore copying lifes.
Setup has enough information to start copying lifes.
Setup has enough information to start copying lifes.
Setup has enough information to start copying lifes.
If you want to review or charge any settings, cick Back. If you are saturied with the settings, cick Next to begin
Click Next
Click Next

Click **Finish** to complete the installation.



Click Finish

# Add a Camera

This section will show you how to start and add a camera to the D-ViewCam system.

To start D-ViewCam, select Start > All Programs > D-Link > D-Link D-ViewCam.



Enter **admin** as the default username and leave the password blank. Click  $\checkmark$  / OK to log into the system and access the Add Camera Wizard.

*Note:* Please refer to page 48 in the D-ViewCam user manual to change your password.

Cog In			<b>—</b> ×
User ID:	Admin		
Password:			
	$\checkmark$	6,	2

Welcome to the Add Camera Wizard. Use this wizard to add your cameras to the D-ViewCam system.

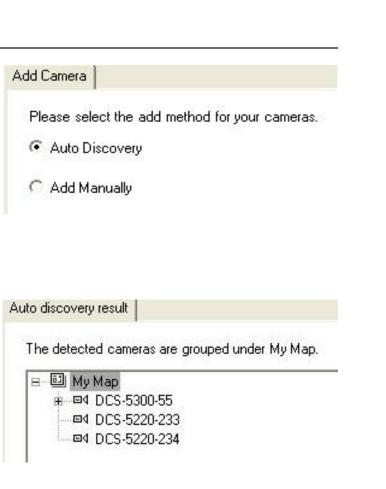
*Note:* Use the left or right arrow to navigate the wizard. Add More Congratulations Welcome Add Camera Assign IP Assign Map Search Result Quick Settings Welcome Welcome to the Camera Wizard. This wizard will go through the following steps: 1. Allow you to choose Auto Discovery or the option to Add Manually a camera. 2. If Add Manually is selected you will be directed to input your camera's IP Address. Click **Next** to continue. 3. If Auto Discovery is selected, you will be prompted with a list of available cameras and the options to configure their name and recording schedules. 4. If any cameras were missed you will be able to select Add another camera or continue and finish the wizard. Instructions Please click Next and follow the on-screen instructions to add your camera(s). Click Next k

D-Link DCS-5610 User Manual

Choose which method to add your camera(s). You can choose **Auto Discovery** to automatically search for your camera(s), or choose **Add Manually** to add your camera(s) via the camera's IP address. Click **Next** to continue.

If you choose **Auto Discovery**, the system will search all cameras that are located on the same LAN with same subnet. The system will place all the cameras at the default map called My Map. Click **Next** to continue.

If you choose **Add Manually**, you will need to enter the IP address of the camera(s). Click **Next** to continue.



	_

D-ViewCam shows the detected IP camera(s) information. You can choose and schedule the recording for each camera.

- 24/7 Continuous Recording: Continuously recording 24 hours a day, 7 days a week.
- 24/7 Motion Detection Recording: Continuously monitoring but ONLY recording when motion is detected.
- Office Hours Only: Continuously monitoring during office hours (08:00 AM to 06.00 PM) and ONLY recording when motion is detected.
- Non-Office Hours Only: Continuously monitoring during non-office hours (06:00 PM to 08.00 AM) and ONLY recording when motion is detected.

*Note:* Excluding 24/7 Continuous Recording, other schedule recording types can ONLY do recording when motion is detected. Please refer to page 29 for more information.

#### Click Next to continue.

Camera Name Mod	odel	Schedule Recording Type	Status	IP Address	MAC Address
		The second se			
CS-5300-55 DCS	:S-5300	None	<ul> <li>Active</li> </ul>	10.129.1.55	000D887D6DC4

Select **Yes** to add other camera(s), or select **No** if you have no additional camera(s) to add. Click **Next** to continue.

Add another of	camera	
C Yes	No	

The Add Camera wizard is now complete. Click Close to access the D-ViewCam's main screen.



### Your D-ViewCam Installation is Complete!

**Note:** Please refer to the D-ViewCam user manual for information about using D-ViewCam.



# **Frequently Asked Questions**

This chapter provides solutions to problems that may occur during the installation and operation of the DCS-5610. Read the following descriptions if you are having problems. (The examples below are illustrated in Windows<sup>®</sup> XP. If you have a different operating system, the screenshots on your computer will look similar to the following examples.)

### **PTZ PoE Internet Camera Features**

#### 1. What is a PTZ PoE Internet Camera?

The PTZ PoE Internet Camera is a stand-alone system connecting directly to an Ethernet or Fast Ethernet network. The PTZ PoE Internet Camera differs from a conventional PC Camera because it has an integrated system with built-in CPU and web-based solutions, providing a low cost solution that can transmit high quality video images for monitoring. The PTZ PoE Internet Camera can be remotely managed, accessed and controlled from any PC/Notebook over an Intranet or Internet using a web browser.

#### 2. What is the maximum number of users that can access DCS-5610 simultaneously?

The maximum number of users that can log onto the PTZ PoE Internet Camera at the same time is 10. Please keep in mind the overall performance of the transmission speed will be reduced if many users have logged on to the camera simultaneously.

#### 3. What algorithm is used to compress the digital image?

The PTZ PoE Internet Camera utilizes MPEG-4 simple profile or MJPEG Mode image compression technology providing high quality images. MJPEG is a standard for image compression and it can be applied to various web browsers and application software without installing any extra software

#### 4. Can I capture still images from the PTZ PoE Internet Camera?

Yes you can capture still images using the snapshot function.

### **PTZ PoE Internet Camera Installation**

#### 1. Can the PTZ PoE Internet Camera be used outdoors?

The PTZ PoE Internet Camera is not weatherproof. It needs to be equipped with a weatherproof case for outdoor use but it is not recommended.

#### 2. When physically connecting the PTZ PoE Internet Camera to a network, what network cabling is required?

The PTZ PoE Internet Camera uses Category 5 UTP cable allowing 10 Base-T and 100 Base-T networking solutions.

#### 3. Can the PTZ PoE Internet Camera be setup as a PC-cam on a computer?

No, the PTZ PoE Internet Camera is used only on an Ethernet or Fast Ethernet network. The D-Link DSB-C110, DSB-C310, can be used as a PC Camera (Webcam).

#### 4. Can the PTZ PoE Internet Camera be connected to the network if it consists only of private IP addresses?

The PTZ PoE Internet Camera can be connected to a LAN with private IP addresses.

#### 5. Can the PTZ PoE Internet Camera be installed and work if a firewall exists on the network?

If a firewall exists on the network, port 80 is open for ordinary data communication. The **DCS-5610** uses port 5002 for streaming audio and port 5003 for streaming video. These ports (or the ports you have specified in the **Advanced** Tab in the Configuration screen) need to be opened on the firewall.

#### 6. Why am I unable to access the PTZ PoE Internet Camera from a web browser?

If a router or firewall is used on the network, the correct ports for the **DCS-5610** may not be configured on the router or firewall. To correct the problem, you need to determine if the **DCS-5610** is behind a router or firewall and if the router or firewall is properly configured for the ports the **DCS-5610** is using. Refer to Page 28 for help in opening the correct ports on a router or firewall for use with the **DCS-5610**. Other possible problems might be due to the network cable. Try replacing your network cable. Test the network interface of the product by connecting a local computer to the unit, utilizing a Ethernet crossover cable. If the problem is not solved the PTZ PoE Internet Camera might be faulty.

#### 7. Why does the PTZ PoE Internet Camera work locally but not externally?

- This might be caused by network firewall protection. The setting of the firewall may need to be changed in order for the PTZ PoE Internet Camera to be accessible outside of your local LAN. Check with the Network Administrator for your network.
- Make sure that your PTZ PoE Internet Camera isn't conflicting with any Web server you may have running on your network.
- The default router setting might be a possible reason. Check that the configuration of the router settings allows the PTZ PoE Internet Camera to be accessed outside of your local LAN.

# 8. I connected the PTZ PoE Internet Camera directly to a computer with a cross-over Ethernet cable and received a Windows error upon running the installation Wizard?

- This Windows error will occur if the PTZ PoE Internet Camera is connected to a computer that is not properly configured with a valid IP address. Turn off DHCP from the Network Settings in Windows and configure the computer with a valid IP address or connect the camera to a router with DHCP enabled.
- This error can also occur if the **Installation Wizard** icon is clicked on more than once from the setup wizard.

#### 9. Noisy images occur. How can I solve the problem?

The video images might be noisy if the PTZ PoE Internet Camera is used in a very low light environment. To solve this issue you need more lighting.

#### 10. The images appear to be of poor quality, how can I improve the image quality?

- Make sure that your computer's display properties are set above 256 colors. Using 16 or 256 colors on your computer will produce dithering artifacts in the image, making the image appear to be of poor quality.
- The configuration on the PTZ PoE Internet Camera image display is incorrect. Through the **Advanced>Image Setup** section of the Web management you need to adjust the image related parameters such as brightness, white balance and power line frequency for fluorescent light.

# **Networking Basics**

### **Check your IP address**

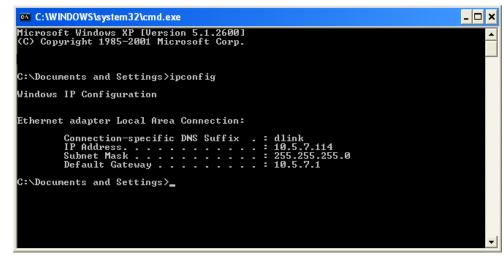
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

Click on Start > Run. In the run box type *cmd* and click OK.

At the prompt, type *ipconfig* and press Enter.

This will display the IP address, subnet mask, and the default gateway of your adapter.

If the address is 0.0.0.0, check your adapter installation, security settings, and the settings on your access point. Some firewall software programs may block a DHCP request on newly installed adapters.



If you are connecting to a wireless network at a hotspot (e.g. hotel, coffee shop, airport), please contact an employee or administrator to verify their wireless network settings.

### Statically Assign an IP address

If you are not using a DHCP capable gateway/access point, or you need to assign a static IP address, please follow the steps below:

#### Step 1

Windows<sup>®</sup> XP - Click on **Start** > **Control Panel** > **Network Connections**. Windows<sup>®</sup> 2000 - From the desktop, right-click **My Network Places** > **Properties**.

#### Step 2

Right-click on the Local Area Connection which represents your D-Link network adapter and select Properties.

#### Step 3

Highlight Internet Protocol (TCP/IP) and click Properties.

#### Step 4

Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your access point.

Example: If the internet camera's LAN IP address is 192.168.0.1, make your IP address 192.168.0.X where X is a number between 2 and 99. Make sure that the number you choose is not in use on the network. Set Default Gateway the same as the LAN IP address of your access point (192.168.0.1).

Set Primary DNS the same as the LAN IP address of your access point (192.168.0.1). The Secondary DNS is not needed or you may enter a DNS server from your ISP.

Step 5	5
--------	---

Click **OK** twice to save your settings.

General	
	ed automatically if your network supports need to ask your network administrator fo
🔘 Obtain an IP address auto	omatically
💿 Use the following IP addr	ess:
IP address:	192.168.0.52
Subnet mask:	255 . 255 . 255 . 0
Default gateway:	192.168.0.1
Obtain DNS server addre	ss automatically
✓ ● Use the following DNS set	erver addresses:
Preferred DNS server:	192.168.0.1
Alternate DNS server:	
	Advanced

# **Technical Specifications**

Video Codec MPEG4 / MJPEG

Audio Codec GSM-AMR / MPEG-4 AAC

**PoE** Supported IEEE 802.3af standard

Sensor 1/4" SONY progressive color CCD sensor

#### SDRAM

32 Mbytes

#### **Flash Memory**

8 Mbytes

#### Lens

- 2.8-7.3mm zoom lens
- F1.9~F200 2.6x optical zoom (4x digital zoom)

#### LAN

- 10/100Base T ports x1
- IEEE 802.3 compliance
- IEEE 802.3u compliance
- Support Full-Duplex operations
- 802.3x Flow Control support for Full-Duplex mode
- Supported IEEE 802.3af standard (PoE)

#### MIC

6mm, -40 db  $\pm$  3db

#### I/O Connector

4pin-contact terminal block (1x input (2pins), 1x output(2pins)

Audio Out Yes

Mute Button Slide switch for microphone mute (2 status)

Reset Button Reset to factory default

**Dimension (WxHxD)** 104 X 103.5 X 118 (mm)

### Weight

319 (gram)

#### **Power Consumption**

- Max 6W (estimate)
- Input: 100-240VAĆ, 50/60Hz
- Output: 12VDC, 1.5A

#### Networking

#### Protocol

- IPV4, ARP, TCP, UDP, ICMP
- DHCP Client
- NTP Client (D-Link)
- DNS Client
- DDNS Client (D-Link)
- SMTP Client
- FTP Client
- HTTP Server
- Samba Client
- PPPoE
- UPnP Port Forwarding
- RTP
- RTSP

#### • RTCP

• IP filtering

• 3GPP

#### Ethernet

10/100M BaseT Fast Ethernet auto negotiation

#### Video

#### Algorithm Supported

MPEG4/MJPEG dual format compression simultaneously JPEG for still image.

#### Features

- Adjustable image size and quality
- Time stamp and text overlay
- Three configurative motion detection windows
- Flip & mirror

#### Resolution

#### • 470 TV lines

- Up to 30 frames at 176x144
- Up to 30 frames at 320x240
- Up to 30 frames at 640x480

#### Low lux

1 Lux / F1.9

#### **3A control**

AGC, AWB, AES

Electronic shutter 1/60(1/50)~1/100,000sec

#### Sample rate

8/24/32K bps

Audio Frequency 50 ~ 16000Hz

#### **S/N ratio** More than 58dB

Mode Full duplex 2-way audio communication

**Directional** Omnidirectional

#### Microphone

**Frequency** 50 ~ 16000Hz

#### **S/N ratio** 6mm, - 40 dB + 3db

#### **OS Support**

#### Device

Windows 2000 / Windows XP / Windows Vista / 3GPP Mobile Phone

#### Utility Windows 2000 / Windows XP / Windows Vista

#### Physical Environment

#### Power

- 12V 1.5A switching power adapter
- External AC-to-DC Switching Power Adapter
- Type: USA / UK / EUR / AUS / CN (Order by each territory)

#### Cable

- Cable Length: 1800 ± 30mm
- Type: UL 20AWGx2C (105°C) 300V

#### Plug

- Type: L type
- Connector Color: Black

#### **Power Jack (On Device)** Color: Black

#### **Operation Temperature**

0 to 40 °C (32 to 104°F)

#### Storage Temperature

- 20 to 70 °C (-4 to 158 °F)

#### Humidity

20-80% RH non-condensing

#### **Emission (EMI), Safety & Other Certifications**

- FCC
- CE
- C-Tick

<sup>1</sup>Maximum wireless signal rate derived from IEEE Standard 802.11g, 802.11a and Draft 802.11n specifications. Actual data throughput will vary. Network conditions and environmental factors, including volume of network traffic, building materials and construction, and network overhead, lower actual data throughput rate. Environmental conditions will adversely affect wireless signal range. <sup>2</sup>Range varies depending on country's regulation. <sup>3</sup>The DCS-5610 doesn't include 5.25-5.35GHz & 5.47~5.725GHz.

# **Contacting Technical Support**

U.S. and Canadian customers can contact D-Link technical support through our web site or by phone.

Before you contact technical support, please have the following ready:

- Model number of the product (e.g. DCS-5610)
- Hardware Revision (located on the label on the bottom of the internet camera (e.g. rev A1))
- Serial Number (s/n number located on the label on the bottom of the internet camera).

You can find software updates and user documentation on the D-Link website as well as frequently asked questions and answers to technical issues.

For customers within the United States:

Phone Support: (877) 453-5465

Internet Support: http://support.dlink.com For customers within Canada:

Phone Support: (800) 361-5265

Internet Support: http://support.dlink.com

# Warranty

Subject to the terms and conditions set forth herein, D-Link Systems, Inc. ("D-Link") provides this Limited Warranty:

- Only to the person or entity that originally purchased the product from D-Link or its authorized reseller or distributor, and
- Only for products purchased and delivered within the fifty states of the United States, the District of Columbia, U.S. Possessions or Protectorates, U.S. Military Installations, or addresses with an APO or FPO.

#### **Limited Warranty:**

D-Link warrants that the hardware portion of the D-Link product described below ("Hardware") will be free from material defects in workmanship and materials under normal use from the date of original retail purchase of the product, for the period set forth below ("Warranty Period"), except as otherwise stated herein.

- Hardware (excluding power supplies and fans): One (1) year
- Power supplies and fans: One (1) year
- Spare parts and spare kits: Ninety (90) days

The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to repair or replace the defective Hardware during the Warranty Period at no charge to the original owner or to refund the actual purchase price paid. Any repair or replacement will be rendered by D-Link at an Authorized D-Link Service Office. The replacement hardware need not be new or have an identical make, model or part. D-Link may, at its option, replace the defective Hardware or any part thereof with any reconditioned product that D-Link reasonably determines is substantially equivalent (or superior) in all material respects to the defective Hardware. Repaired or replacement hardware will be warranted for the remainder of the original Warranty Period or ninety (90) days, whichever is longer, and is subject to the same limitations and exclusions. If a material defect is incapable of correction, or if D-Link determines that it is not practical to repair or replace the defective Hardware. All Hardware or part thereof that is replaced by D-Link upon return to D-Link of the defective Hardware. All Hardware or part thereof that is replaced by D-Link, or for which the purchase price is refunded, shall become the property of D-Link upon replacement or refund.

#### Limited Software Warranty:

D-Link warrants that the software portion of the product ("Software") will substantially conform to D-Link's then current functional specifications for the Software, as set forth in the applicable documentation, from the date of original retail purchase of the Software for a period of ninety (90) days ("Software Warranty Period"), provided that the Software is properly installed on approved hardware and operated as contemplated in its documentation. D-Link further warrants that, during the Software Warranty Period, the magnetic media on which D-Link delivers the Software will be free of physical defects. The customer's sole and exclusive remedy and the entire liability of D-Link and its suppliers under this Limited Warranty will be, at D-Link's option, to replace the non-conforming Software (or defective media) with software that substantially conforms to D-Link's functional specifications for the Software or to refund the portion of the actual purchase price paid that is attributable to the Software. Except as otherwise agreed by DLink in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Replacement Software will be warranted for the remainder of the original Warranty Period and is subject to the same limitations and exclusions. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software (and all copies the original licensee for the non-conforming Software will be refunded by D-Link; provided that the non-conforming Software (and all copies thereof) is first returned to D-Link. The license granted respecting any Software for which a refund is given automatically terminates.

#### Non-Applicability of Warranty:

The Limited Warranty provided hereunder for Hardware and Software portions of D-Link's products will not be applied to and does not cover any refurbished product and any product purchased through the inventory clearance or liquidation sale or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product and in that case, the product is being sold "As-Is" without any warranty whatsoever including, without limitation, the Limited Warranty as described herein, notwithstanding anything stated herein to the contrary.

#### Submitting A Claim:

The customer shall return the product to the original purchase point based on its return policy. In case the return policy period has expired and the product is within warranty, the customer shall submit a claim to D-Link as outlined below:

- The customer must submit with the product as part of the claim a written description of the Hardware defect or Software nonconformance in sufficient detail to allow DLink to confirm the same, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.
- The customer must obtain a Case ID Number from D-Link Technical Support at 1-877-453-5465, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization ("RMA") number by completing the RMA form and entering the assigned Case ID Number at https://rma.dlink.com/.

- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping
  package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside
  of the package. Do not include any manuals or accessories in the shipping package. DLink will only replace the defective
  portion of the product and will not ship back any accessories.
- The customer is responsible for all in-bound shipping charges to D-Link. No Cash on Delivery ("COD") is allowed. Products sent COD will either be rejected by D-Link or become the property of D-Link. Products shall be fully insured by the customer and shipped to D-Link Systems, Inc., 17595 Mt. Herrmann, Fountain Valley, CA 92708. D-Link will not be held responsible for any packages that are lost in transit to D-Link. The repaired or replaced packages will be shipped to the customer via UPS Ground or any common carrier selected by D-Link. Return shipping charges shall be prepaid by D-Link if you use an address in the United States, otherwise we will ship the product to you freight collect. Expedited shipping is available upon request and provided shipping charges are prepaid by the customer. D-Link may reject or return any product that is not packaged and shipped in strict compliance with the foregoing requirements, or for which an RMA number is not visible from the outside of the package. The product owner agrees to pay D-Link's reasonable handling and return shipping charges for any product that is not packaged and shipped in accordance with the foregoing requirements, or that is determined by D-Link not to be defective or non-conforming.

#### What Is Not Covered:

The Limited Warranty provided herein by D-Link does not cover:

Products that, in D-Link's judgment, have been subjected to abuse, accident, alteration, modification, tampering, negligence, misuse, faulty installation, lack of reasonable care, repair or service in any way that is not contemplated in the documentation for the product, or if the model or serial number has been altered, tampered with, defaced or removed; Initial installation, installation and removal of the product for repair, and shipping costs; Operational adjustments covered in the operating manual for the product, and normal maintenance; Damage that occurs in shipment, due to act of God, failures due to power surge, and cosmetic damage; Any hardware, software, firmware or other products or services provided by anyone other than D-Link; and Products that have been purchased from inventory clearance or liquidation sales or other sales in which D-Link, the sellers, or the liquidators expressly disclaim their warranty obligation pertaining to the product.

While necessary maintenance or repairs on your Product can be performed by any company, we recommend that you use only an Authorized D-Link Service Office. Improper or incorrectly performed maintenance or repair voids this Limited Warranty.

#### **Disclaimer of Other Warranties:**

EXCEPT FOR THE LIMITED WARRANTY SPECIFIED HEREIN, THE PRODUCT IS PROVIDED "AS-IS" WITHOUT ANY WARRANTY OF ANY KIND WHATSOEVER INCLUDING, WITHOUT LIMITATION, ANY WARRANTY OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE AND NONINFRINGEMENT.

IF ANY IMPLIED WARRANTY CANNOT BE DISCLAIMED IN ANY TERRITORY WHERE A PRODUCT IS SOLD, THE DURATION OF SUCH IMPLIED WARRANTY SHALL BE LIMITED TO THE DURATION OF THE APPLICABLE WARRANTY PERIOD SET FORTH ABOVE. EXCEPT AS EXPRESSLY COVERED UNDER THE LIMITED WARRANTY PROVIDED HEREIN, THE ENTIRE RISK AS TO THE QUALITY, SELECTION AND PERFORMANCE OF THE PRODUCT IS WITH THE PURCHASER OF THE PRODUCT.

#### Limitation of Liability:

TO THE MAXIMUM EXTENT PERMITTED BY LAW, D-LINK IS NOT LIABLE UNDER ANY CONTRACT, NEGLIGENCE, STRICT LIABILITY OR OTHER LEGAL OR EQUITABLE THEORY FOR ANY LOSS OF USE OF THE PRODUCT, INCONVENIENCE OR DAMAGES OF ANY CHARACTER, WHETHER DIRECT, SPECIAL, INCIDENTAL OR CONSEQUENTIAL (INCLUDING, BUT NOT LIMITED TO, DAMAGES FOR LOSS OF GOODWILL, LOSS OF REVENUE OR PROFIT, WORK STOPPAGE, COMPUTER FAILURE OR MALFUNCTION, FAILURE OF OTHER EQUIPMENT OR COMPUTER PROGRAMS TO WHICH D-LINK'S PRODUCT IS CONNECTED WITH, LOSS OF INFORMATION OR DATA CONTAINED IN, STORED ON, OR INTEGRATED WITH ANY PRODUCT RETURNED TO D-LINK FOR WARRANTY SERVICE) RESULTING FROM THE USE OF THE PRODUCT, RELATING TO WARRANTY SERVICE, OR ARISING OUT OF ANY BREACH OF THIS LIMITED WARRANTY, EVEN IF D-LINK HAS BEEN ADVISED OF THE POSSIBILITY OF SUCH DAMAGES. THE SOLE REMEDY FOR A BREACH OF THE FOREGOING LIMITED WARRANTY IS REPAIR, REPLACEMENT OR REFUND OF THE DEFECTIVE OR NONCONFORMING PRODUCT. THE MAXIMUM LIABILITY OF D-LINK UNDER THIS WARRANTY IS LIMITED TO THE PURCHASE PRICE OF THE PRODUCT COVERED BY THE WARRANTY. THE FOREGOING EXPRESS WRITTEN WARRANTIES AND REMEDIES ARE EXCLUSIVE AND ARE IN LIEU OF ANY OTHER WARRANTIES OR REMEDIES, EXPRESS, IMPLIED OR STATUTORY.

#### **Governing Law:**

This Limited Warranty shall be governed by the laws of the State of California. Some states do not allow exclusion or limitation of incidental or consequential damages, or limitations on how long an implied warranty lasts, so the foregoing limitations and exclusions may not apply. This Limited Warranty provides specific legal rights and you may also have other rights which vary from state to state.

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#### **CE Mark Warning:**

This is a Class B product. In a domestic environment, this product may cause radio interference, in which case the user may be required to take adequate measures.

#### **FCC Statement:**

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

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

#### FCC Caution:

Any changes or modifications not expressly approved by the party responsible for compliance could void the user's authority to operate this equipment.

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

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

If this device is going to be operated in 5.15 ~ 5.25GHz frequency range, then it is restricted in indoor environment only.

#### **IMPORTANT NOTICE:**

#### FCC Radiation Exposure Statement:

This equipment complies with FCC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body. This transmitter must not be co-located or operating in conjunction with any other antenna or transmitter.

The availability of some specific channels and/or operational frequency bands are country dependent and are firmware programmed at the factory to match the intended destination. The firmware setting is not accessible by the end user.

For detailed warranty information applicable to products purchased outside the United States, please contact the corresponding local D-Link office.

#### **Industry Canada Notice:**

This device complies with RSS-210 of the Industry Canada Rules. Operation is subject to the following two conditions:

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

#### IMPORTANT NOTE: Radiation Exposure Statement:

This equipment complies with IC radiation exposure limits set forth for an uncontrolled environment. This equipment should be installed and operated with minimum distance 20cm between the radiator & your body.

This device has been designed to operate with an antenna having a maximum gain of 2 dB. Antenna having a higher gain is strictly prohibited per regulations of Industry Canada. The required antenna impedance is 50 ohms.

# Registration



Product registration is entirely voluntary and failure to complete or return this form will not diminish your warranty rights.