

DCS-6410

**Version 1.2** 

## **Fixed Dome Network Camera**

User Manual

**Business Class Networking** 

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## **Package Contents**

- D-Link DCS-6410 Fixed Dome Network 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 the package 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® XP or Windows Vista®
- 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 using the D-ViewCam software)

## Introduction

The D-Link DCS-6410 Fixed Dome Network Camera with Built-In IR LEDs and PoE support is a powerful surveillance system that can connect to your network. The DCS-6410 differs from a conventional PC Camera because it is a standalone system with a built-in CPU and Web server, providing a low-cost solution capable of solving demanding security and home/office monitoring needs. It is designed with aluminum casing for maximum heat dissipation and better protection. Snapshot enables you to save a snapshot image directly from a Web browser to a local hard drive without installing any software. With 0.1 lux light sensitivity, the DCS-6410 is capable of capturing video in rooms with minimal lighting. With the Built-In IR LED Lens, you can customize your surveillance application to enable low light or night vision video streaming. The DCS-6410 gives you the ability to monitor video and audio in your home/office using an Internet browser anywhere in the world! Simple installation procedures, along with the built-in Web-based interface offers 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**

- Supports a Variety of Protocols: Supporting TCP/IP networking, SMTP e-mail, HTTP and other Internet related protocols, the DCS-6410 Network Camera can be integrated easily into other Internet/Intranet applications because of its standards-based features.
- Remote Snapshot Images: Using the Snapshot feature, you save snapshots directly from the Web browser to a local hard drive without installing any software, making it convenient to instantly capture any moment from a remote location.
- Low Light Recording: The light sensitivity allows you to capture video in rooms with minimal lighting, making it ideal for use at night time.
- Web Configuration: Using the Web browser, administrators can configure and manage the Network Camera directly using the web browser via Intranet or Internet. Up to 10 accounts with different settings can be created and controlled by the administrator.
- Powerful Surveillance and Remote Monitoring Utility: An administrator is assigned with a pre-defined user ID and password, can modify the Network Camera settings from a remote site via Intranet or Internet. Administrators are allowed to monitor the video image, record the video image to a hard drive, and take snapshots.
- Broad Range of Applications: With today's high-speed Internet, the Network Camera provides the ideal solution for remotely monitoring live video images over the Intranet and Internet. The DCS-6410 allows remote access using Internet Explorer or other web browser for live image viewing with audio and allows the administrator to manage and control the Network Camera anywhere and anytime. Apply the Network 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 Network 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.

## **Hardware Overview**

#### **DC Power Connector**

The DC power input connector is located on the DCS-6410 Network Camera's back panel and is labeled 12V DC with a single socket to supply power to the Network Camera.



#### **Reset Button**

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

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

The Network 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 Network Camera to automatically detect or negotiate the transmission speed of the network.

## **Hardware Overview**

#### **Audio Out Connector**

The DCS-6410 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.



#### **Microphone Connector**

The DCS-6410 Fixed Dome Network Camera doesn't supports built-in microphone. But, you have the option of using an external microphone by plugging it into the microphone connector.

#### DI/DO

The DCS-6410 provides a general I/O terminal block. The I/O connectors provide the physical interface to send and receive digital signals to and from a variety of external devices.

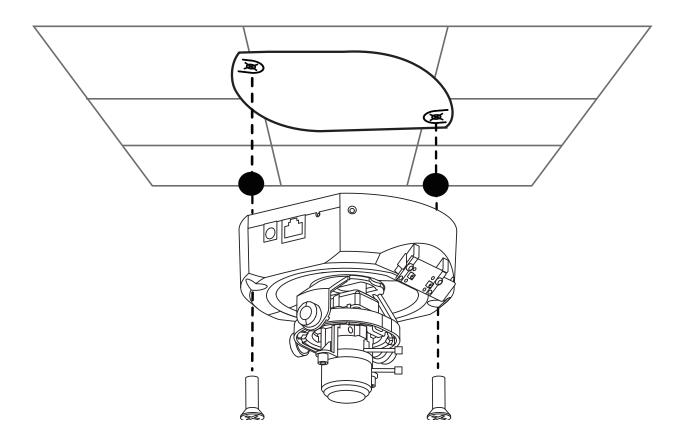
#### **Video Out**

The DCS-6410 provides an Analog RCA Video port output allowing you to connect to a TV for local viewing. The DCS-6410 can also be connected to a VCR to record activities.

## **Hardware Installation**

#### When Mounting to a Ceiling

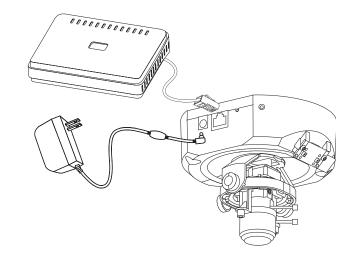
Find a suitable place to install the camera using the alignment stencil. Place the camera at the desired operating location and insert the screws through the two holes located at the base of the camera. Use a screwdriver to tighten and secure.



## **Network Deployment**

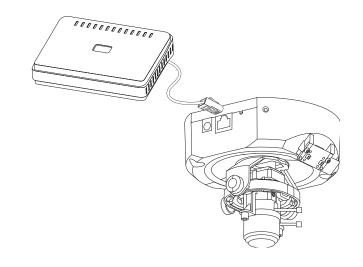
#### **General Connection (without PoE)**

Connect the network camera to a switch via an Ethernet cable. Connect the supplied power cable from the camera to a power outlet.



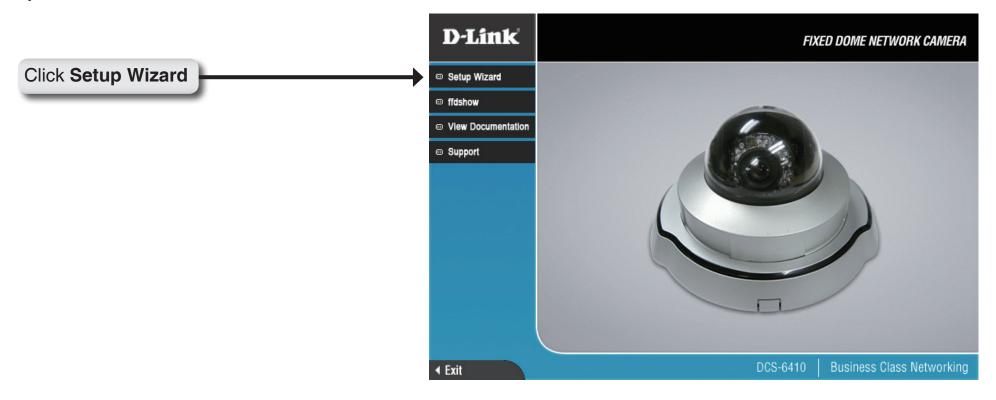
#### **Connection with a PoE Switch**

If using a PoE switch, connect the network camera to the switch via an Ethernet cable, which will provide both power and data transmission over a single cable.

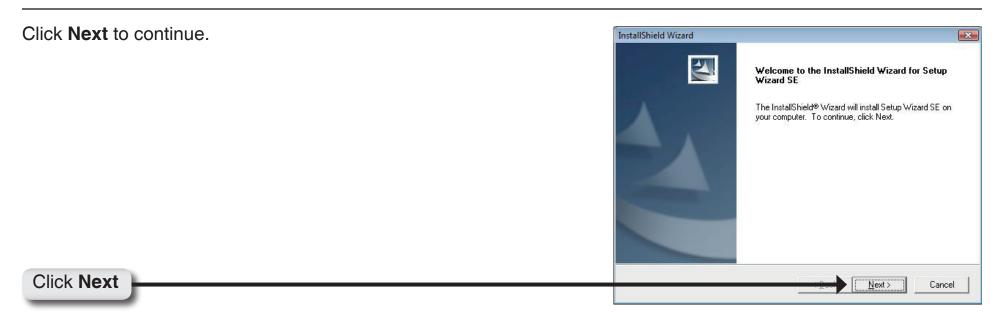


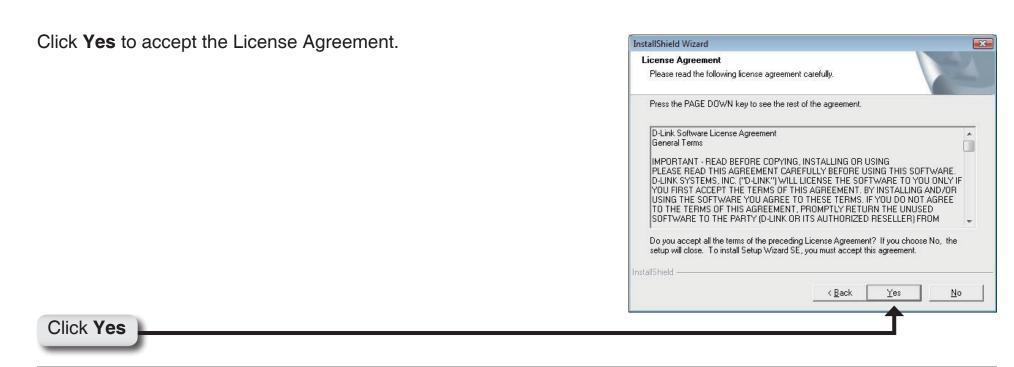
## **Software Installation**

Turn on the computer and insert the D-Link DCS-6410 Driver CD into the CD-ROM drive. The following step-by-step instructions will be shown in Windows® XP. Similar steps and screens will also be shown for other Windows operating systems.



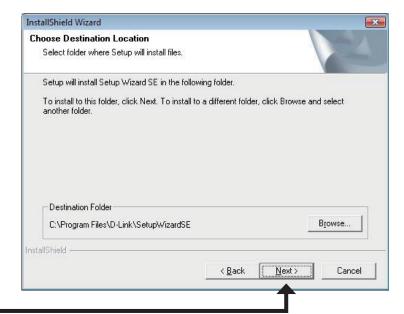
If the CD Autorun function does not automatically start on your computer, click Windows Start > Run. In the Run command box type "D:\autorun.exe", where D: represents the drive letter of your CD-ROM. If it does start, proceed to the next screen.



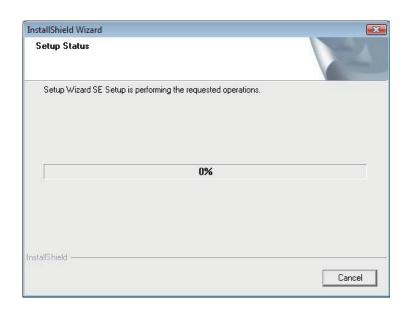


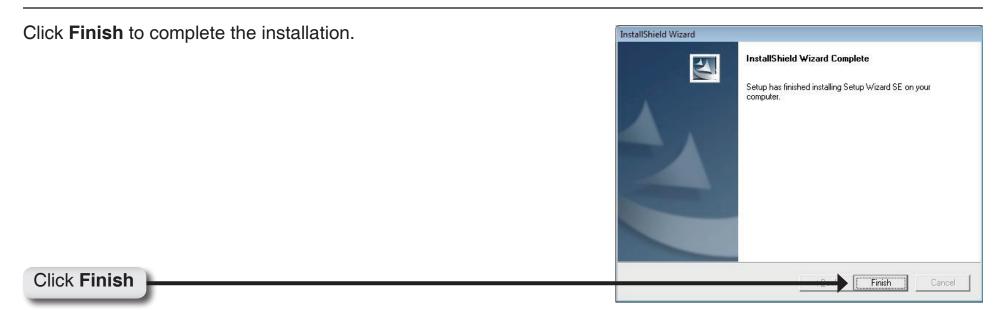
To start the installation click Next.

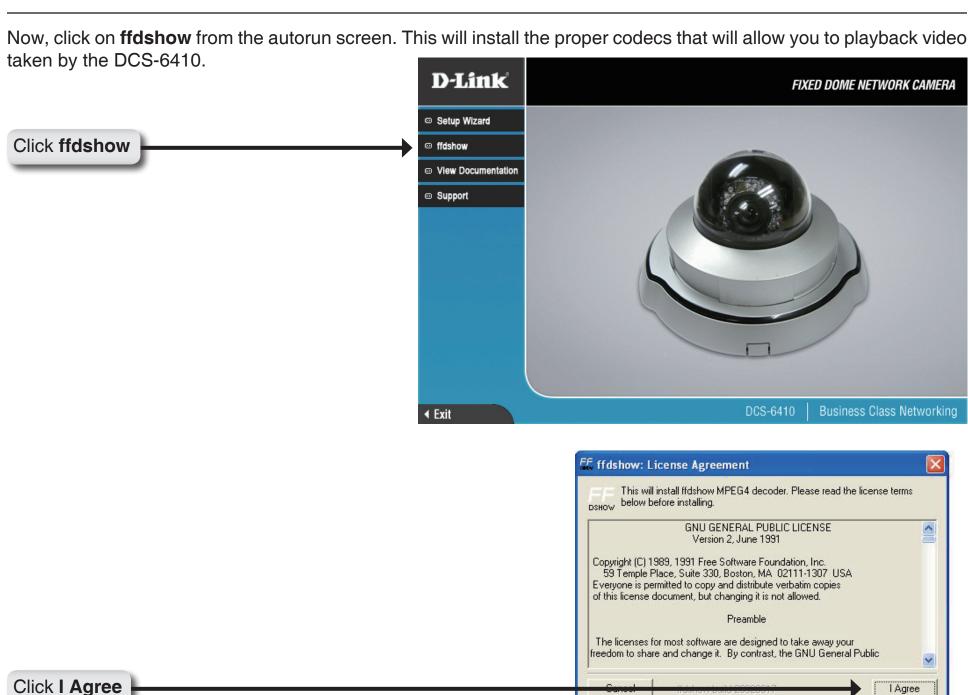
**Note:** The installation may take several minutes to complete.

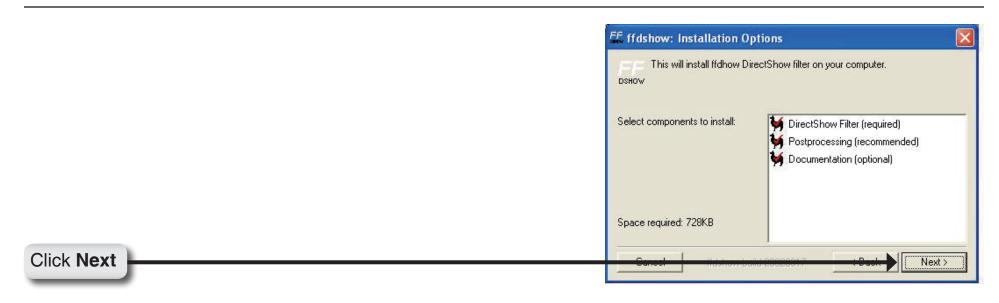


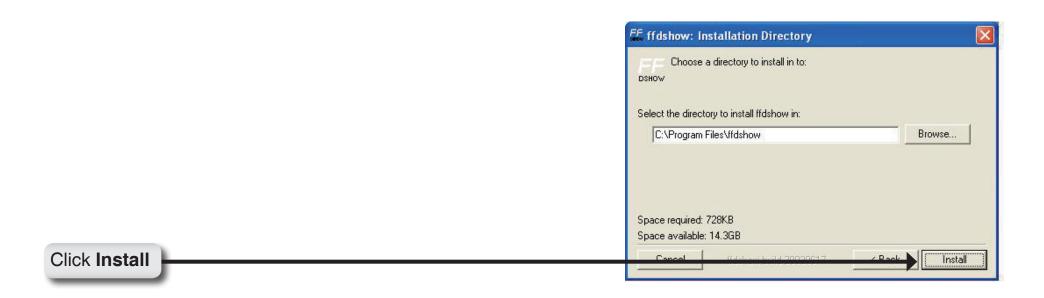
Click Next

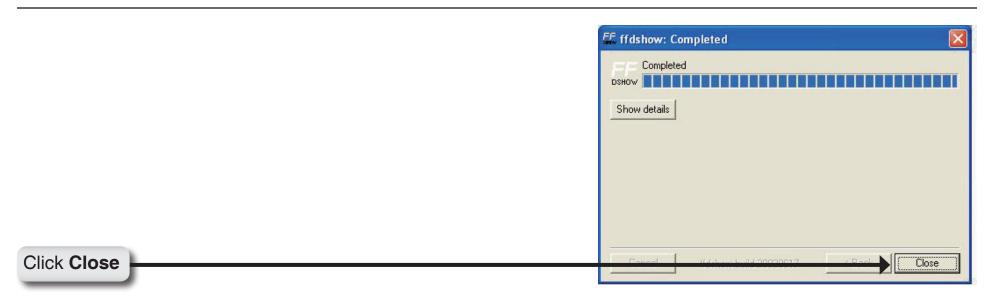






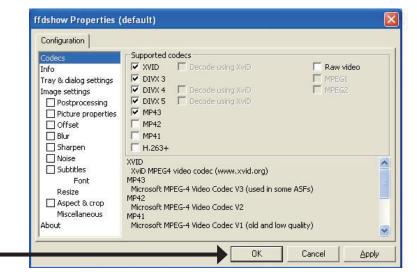






Before using **ffdshow** you must configure its properties. From your computer, click on **Start > Programs > ffdshow > Configuration**.

At the **ffdshow** properties window, scroll to the bottom and click **Miscellaneous**. Be sure **Autodetect** is checked, and **Error resilience** and **Error concealment** are set to "none". Click **OK** and close the window.



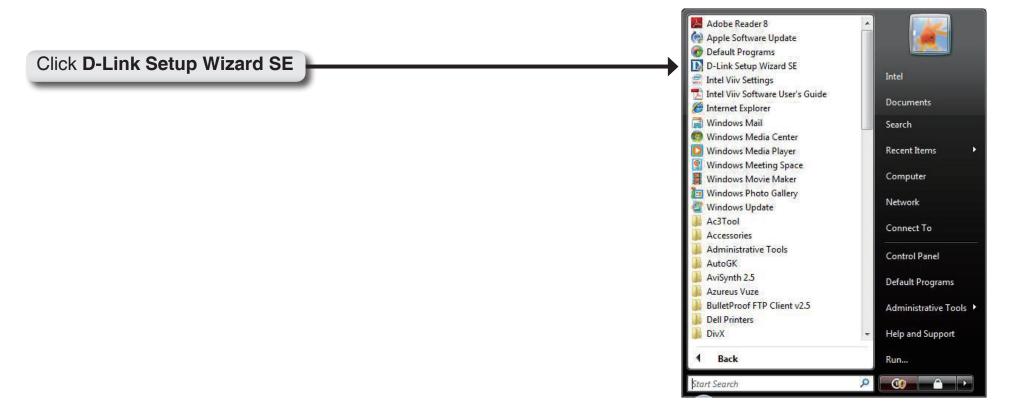
Click **OK** 

## **Configuration**

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

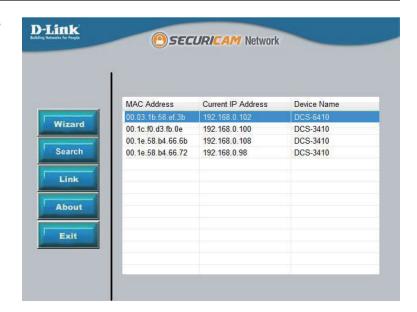
## **Setup Wizard Configuration**

Click on the icon that has been created in your Windows Start menu.



The Setup Wizard will appear and show the MAC address of your DCS-6410 and an IP Address (which may or may not be correct, depending on what you have your DCS-6410 connected to). If you have a DHCP server on your network, there will be a valid IP Address displayed here. Click the **Wizard** button to continue.

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



Enter the admin ID and password.

**Note:** By default, Admin ID is **admin** and the password is left blank.



Click Next

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



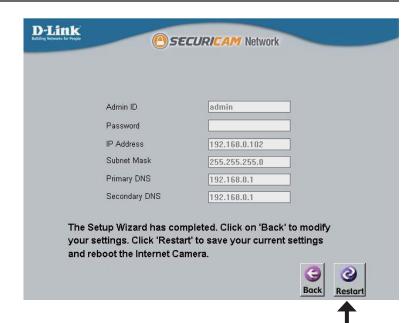
#### Click Next

Select static IP to use the same IP address at each boot up.



Click Next

Click **Restart** to save your settings and reboot the Network Camera.



#### Click Restart

Click the button labeled **Link** to access the web configuration page. The Setup Wizard will automatically open your web browser with the IP address of your DCS-6410. For example, the IP address is: http://192.198.0.20.

Note: Your DCS-6410 may have a different IP Address.

Wizard 00.1c.f0.d3.fb.0e 00.1e.58.b4.66.6b Search 00.1e.58.b4.66.72 Click Link Link About Exit

**D-Link** (A) SECURICAM Network MAC Address Current IP Address Device Name DCS-3410 192.168.0.100 192,168,0,108 DCS-3410 192.168.0.98 DCS-3410

## **Web-based Configuration Utility**

This section will show you how to configure your new D-Link Network 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 Network Camera (http://192.168.0.20)

**Note:** 192.168.0.20 is only an example. Your address may differ.

Enter **Admin** for the username and leave the password blank by default.

**Note:** To change your password, please refer to page 41.





Click **OK** 

## Live Video Camera

This section shows your camera's live video and event indicators. You may select the available thumbnails for your options of predefined **Video Profile**, **Full Screen** mode, and action items of taking **Snapshot**, **Recording**, **Set Storage Folder**, **Listen**, **Talk**, and **Digital Output**. You may also select your language setting using the drop-down menu.

You can zoom in and out of the live video image using your mouse. Right-click to zoom out and left-click to zoom in on the image.

Digital Input Indicator:

This indicator will light up when there is an available digital input signal.

Motion Trigger Indicator:

When a trigger event occurs, this will light up.

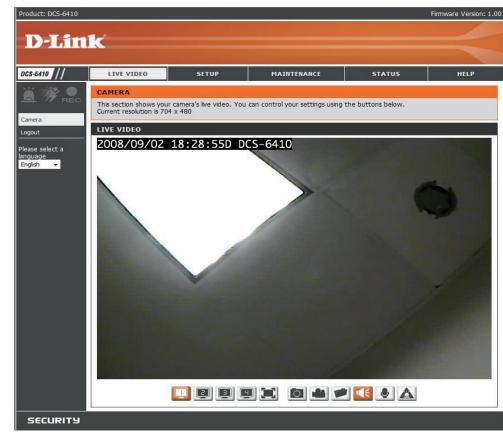
**Note:** The video motion feature of your camera must be enabled.

Recording Indicator:

When a recording is in progress, this indicator

will light up.

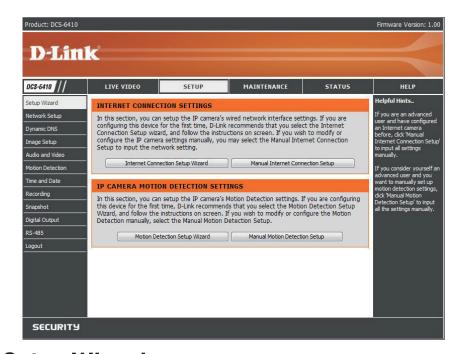
- Video Profile 1
- Video Profile 2
- **Video Profile 3**
- Video Profile 4
- Full screen mode
- Taking a Snapshot
- Recording a Video Clip
- Set a Storage Folder
- Listen/Stop Listening
- Talk/Stop Talking
- ▲ Start/Stop Digital Output



## **Setup** Wizard

To quickly configure your Network Camera, click Internet Connection Setup Wizard or click Manual Internet Connection Setup to manually configure your Network Camera.

To quickly configure your Network Camera's motion detection settings, click **Motion Detection Setup Wizard** and go to page 27. If you want to enter your settings without running the wizard, click **Manual Motion Detection Setup** and skip to page 30.



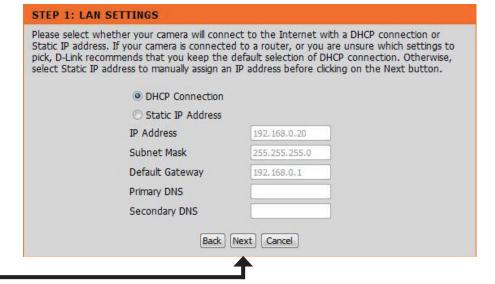
#### **Internet Connection Setup Wizard**

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 25.

Select **Static IP** if your Internet Service Provider has provided you with connection settings, or you want to set a static address within your home network. Enter the accurate information for your static IP setting. Click **Next** to continue.



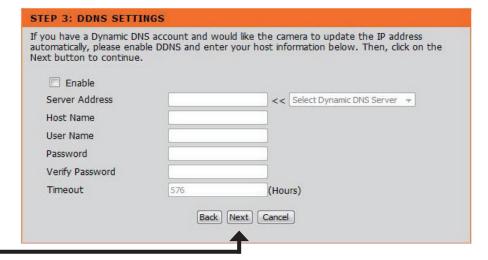
Click Next

Click Next

If you are using PPPoE, select **Enable** and enter your user name and password. Click **Next** to continue.

	E, please enable this setting and enter your ISP Username and Password button. Please contact your ISP if you do not know your Username and
Enable	d
Username	
	(e.g. 123456@hinet.net)
Password	

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



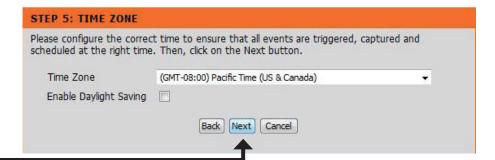
Click **Next** 

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

# D-Link recommends that you rename your camera for easy accessibility. You can then identify and connect to your camera via this name. Please assign a name of your choice before clicking on the Next button. Camera Name DCS-6410 Back Next Cancel

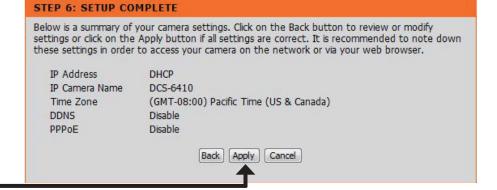
Click Next

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



Click Next

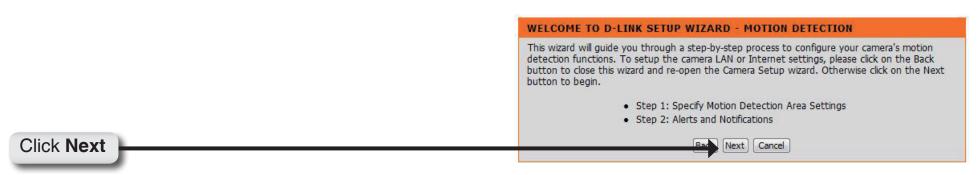
You will see a summary of your camera's settings. Please note down all this information as you will need it for accessing your camera within the network. Click **Apply** to activate your settings.



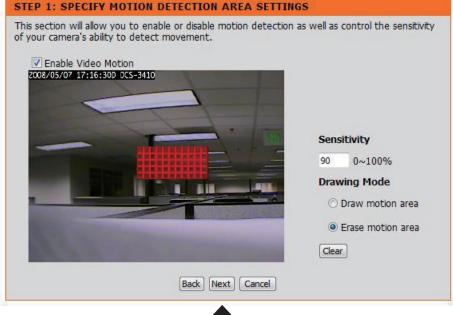
Click Apply

#### **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 camera's sensitivity or its ability to detect movement. You can select the **Drawing Mode** to draw or erase the motion area in the window of live video.



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 2: ALERTS AND NOTIFICAT	IONS
between an email notification or alternati your email account settings or FTP details	you receive notification of camera events. Choose ively you can setup an FTP Notification. You will need s. If you are unsure of this information, please contact formation, please click on the Next button.
Enable e-mail notification	
User Name	
Password	
SMTP Mail Server	
Sender E-mail Address	
Recipient E-mail Address	-
Port	25
Enable FTP uploading User Name Password Host Name Path Filename Prefix Port Passive Mode	DCS-3410
Bar	ck Next Cancel

Click Next

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

#### STEP 3: 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: Enable
Alerts and Notification: Do not notify me

Back Apply Cancel

Click **Apply** 

#### **Network Setup**

Use this section to configure the network connections for you camera. All relevant information must be entered accurately.

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 Address: 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 aid you in accessing your camera in the future.

IP Address: The fixed IP address.

**Subnet Mask:** The default value is "255.255.25.0." 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 DNS.

**Enable UPnP:** Enable this setting to allow your camera to be configured as an UPnP device in your network.



**Enable UPnP port** Enable this setting to allow your camera to add port forwarding entries into the router automatically. **forwarding**:

**Enable PPPoE:** Enable this setting if your network is using PPPoE service.

User Name: The unique name of your account. You may obtain this information from your ISP.

Password: The password of your account. You may obtain this information from your ISP.

HTTP Port: The default value is 80.

RTSP port: The port number that you use for RTSP streaming to mobile devices, such as mobile phones or PDAs. The default port number is 554.

#### **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 user name and password are required when using the DDNS service.

Enable DDNS: Select the checkbox to enable the DDNS

function.

Server Name: Select your Dynamic DNS provider from the pull

down menu or enter the server address manually.

Host Name: Enter the host name of the DDNS server.

User name: Enter your user name or e-mail used to connect

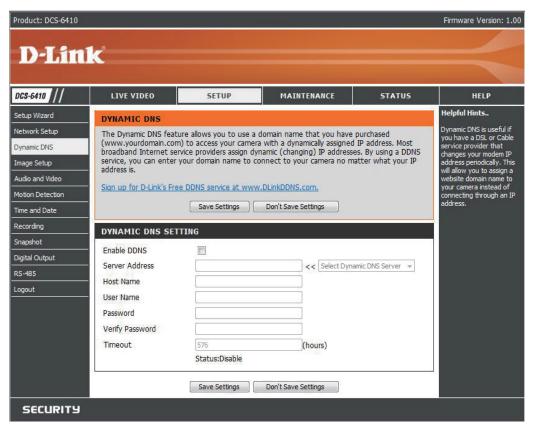
to the DDNS.

Password: Enter your password used to connect to the DDNS

server.

Status: Indicate the connection status, automatically

determined by the system.



## **Image Setup**

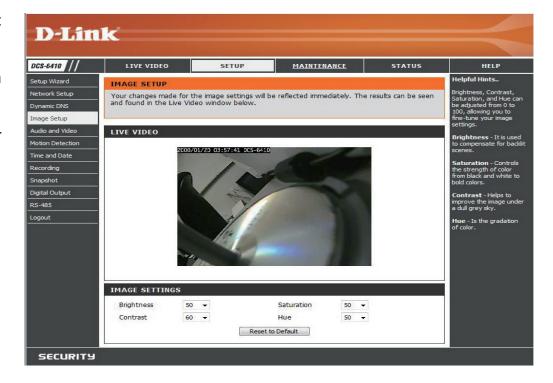
In this section, you may configure the image settings for your camera. A preview of the image will be shown in the window of Live Video.

**Brightness:** An adjustable setting to compensate for backlit scenes.

**Saturation:** This setting controls the strength of color from black and white to bold colors.

**Contrast:** Allows for the measurement of color intensity or strength.

**Hue:** This setting controls the color tone.



#### **Audio and Video**

You may configure 4 video profiles with different settings for your camera. You may also set up different profiles for your computer and mobile display. In addition, you may configure the audio (speakers and microphone) settings for your camera.

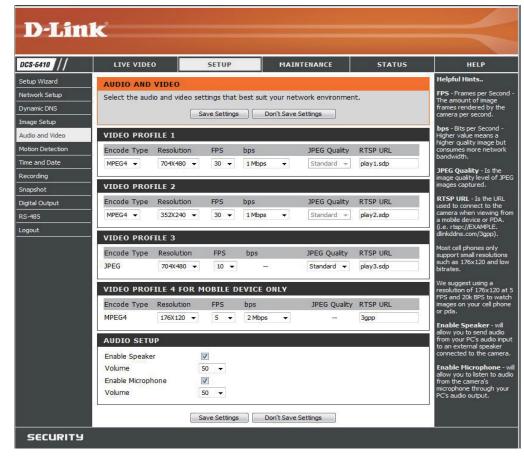
**Resolution:** This option allows the user to choose the video resolution of the camera between 176x120, 352x240 and 704x480:

- QQVGA @ 176x120 Usually used for only displays of handheld devices.
- QVGA @ 352x240 Standard solution for mobile phones and PDAs.
- VGA @ 704x480 Standard solution for computer display.

FPS: (Frames Per Second): Highest FPS represents the maximum refresh rate when a picture is updated on the screen every second. This provides a better quality of video.

**BPS:** (Bits Per Second): BPS will affect the bit rate of the video recorded by the camera. A higher bit rate will increase the video quality.

RTSP URL: Is the URL name used to connect to the camera when viewing from a mobile device or PDA.



#### **Motion Detection**

Enabling **Video Motion** will allow your camera to use the motion detection feature. You may also draw out the motion area for the monitoring.

**Enable Video** Check this option to turn on the motion detection **Motion:** feature for your camera.

**Sensitivity:** Allows you to set the measurable difference between two sequential images that would indicate motion.

**Draw motion** Select this option to draw out the motion detection area: area by dragging your mouse in the window (indicated by the red-colored box).

**Erase motion** Use this option to erase your motion detection area: area by dragging your mouse in the window.



#### **Time and Date**

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

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

**Enable Daylight** Select to enable the daylight saving time. **Saving:** 

Auto Daylight Select this option so that your camera Saving: will configure the Daylight Saving setting automatically.

**Set date and time** Select this option so that you may configure manually: the Daylight Saving date and time manually.

**Offset:** Sets the amount of time to be added or removed when Daylight Saving is enabled.

**Synchronize with** Enable this feature to obtain time configuration **NTP server**: automatically from the NTP server.

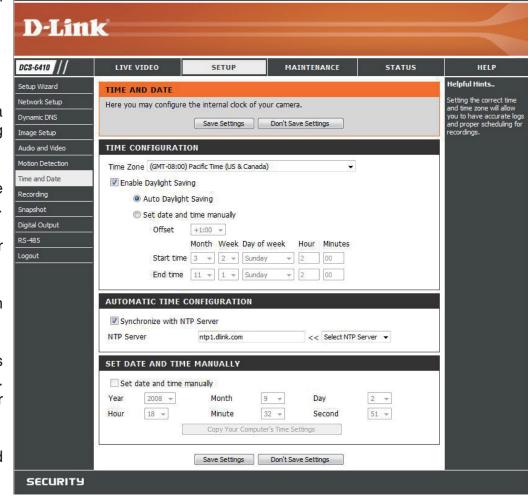
NTP Server: Network Time Protocol (NTP) synchronizes

the DCS-6410 with an Internet time server. Choose the one that is closest to your

location.

**Set the date and** This option allows you to set the time and **time manually**: date manually.

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



# Recording

This section allows you to configure and schedule the recording setting for your IP camera.

Enable Recording: Select this option to enable the recording feature.

**Samba Auth:** To access your account on the Samba network drive, enter your account and password or select anonymous.

**Server:** Enter the name of your Samba server.

**Shared Folder:** The name of the shared folder used for recording.

**Test:** Click this thumbnail to verify the connection status of your camera to the Samba network drive.

**Samba Status:** Displays the connection status that is determined by the system. You can click **Get Status** to refresh the status.

**Resolution:** Select your pre-defined profile from the drop-down menu.

When Storage is When the recording storage area is full, you may choose full: to stop recording, or recycle the recording files so that your camera can record the video continuously.

**Continuous:** Select to record continuously.

**Event Based:** Allows Recording when Motion Recording, Digital Input 1, or Digital Input 2 is triggered.

**Prerecord:** A preset amount of time before motion recording is triggered.

**Postrecord:** A preset amount of time after motion recording is triggered.

**Scheduled:** Select this option to manually configure the starting and ending time for the recording.



# **Snapshot**

Enable the **Snapshot** feature so that your camera can take snaphots and send it to your email address or FTP server.

**Enable Snapshot:** Select to enable or disable snapshot event.

Trigger Event: Select one or more of the events, such as Motion Detection,

D/I Signal 1 and D/I Signal 2 for the source that triggers

the action.

E-mail Address: Select this option if you want to receive snapshot images

via e-mail.

FTP Server: Select this option if you want to receive your snapshot

images via FTP.

Host name: The host name of your FTP server.

Path: The directory or path where the images will be uploaded to (for

example: \pub\images).

**Prefix Filename:** The prefix that will be added to the filename of each file.

**Port:** The port of the FTP server. The default port is 25.

Passive mode: Some FTP servers allow clients to use passive mode

when connecting to an FTP, which uses random ports for

transfers.

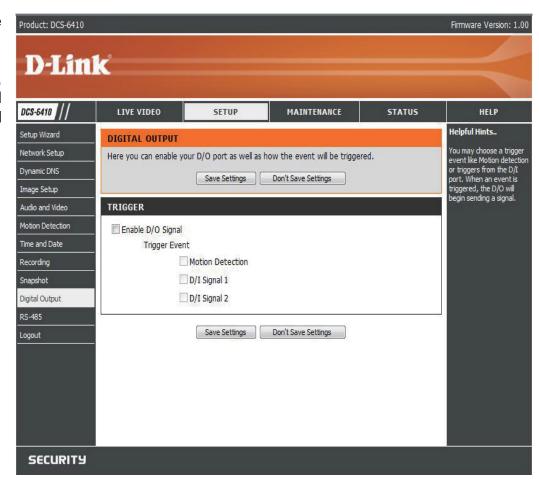


# **Digital Output**

You may enable the **Digital Output (DO)** feature and configure the source of event for your camera.

**Enable D/0** This enables the D/O to send a signal when there **signal**: is a triggered event.

Trigger Event: You can choose from one or up to three events, such as Motion Detection, D/I Signal 1, and D/I Signal 2 for the sources of the triggered events.



# **RS-485**

You may configure the **RS-485** settings or communication specifications (baud rate, data bit, stop bit, and parity bit) for your camera. RS-485 is a serial communication method for computers and devices. For your camera, the RS-485 is used to control a PAN/TILT device, such as an external camera enclosure, to perform PAN and TILT movement.

Support PAN- When enabling Support PAN-TILT, a control panel

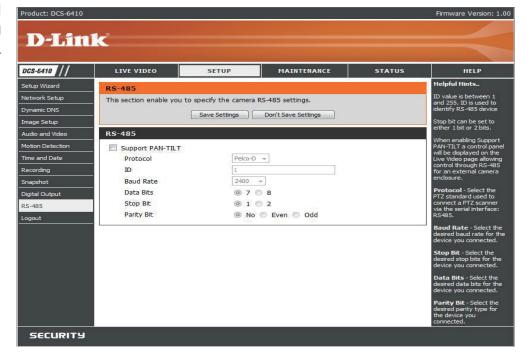
**TILT:** will be displayed on the Live Video page allowing control through RS-485 for an external camera enclosure.

**Protocol**: Select one protocol type from the pull-down menu.

ID: Range from 1 to 255, is the identifier for each RS-485 devices.

Baud Rate: Range from 2400 to 38400 bps. It is a speed measurement for communication between a transmitter and receiver, indicates the number of bit transfers per second. Higher baud rate will reduce the distance of the two devices (transmitter and receiver). By default, the value is 2400.

Data Bit: Either 7 or 8. It is a measurement of the actual data bits in a transmission. By default, the value is 7.



**Stop Bit**: Either **1** or **2**. It is used to signal the end of communication for a single packet. The more bits used for stop bits, the greater the lenience in synchronizing the different clocks, but the slower the data transmission rate. By default, the value is **1**.

Parity Bit: Choices of No, Even, and Odd. It is a simple form of error checking used in serial communication and you may use no parity. For even and odd parity, the serial port sets the parity bit (the last bit after the data bits) to a value to ensure that the transmission has an even or odd number of logic-high bits.

For example, if the data is 011, for even parity, the parity bit is 0 to keep the number of logic-high bits even. If the parity is odd, the parity bit is 1, resulting in 3 logic-high bits.

# Maintenance Device Management

You may modify the name and administrator's password of your camera, as well as add and manage the user accounts for accessing the camera. You may also use this section to create the unique name and configure the OSD setting for your camera.

Admin password Set a new password for the administrator's setting: account.

Add user account: Add new user account.

User name: Enter a user name for the new account.

Password: Enter a password for the new account.

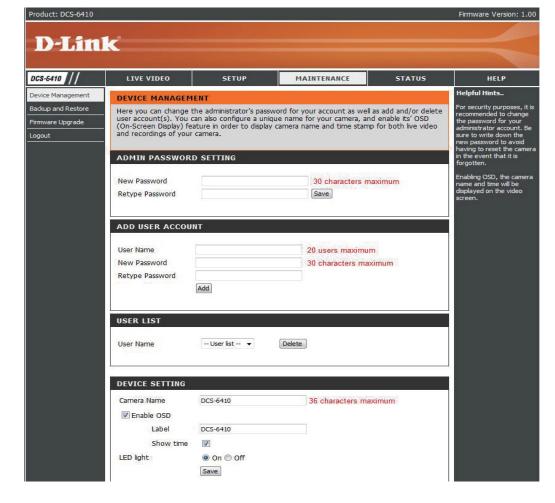
User List: All the existing user accounts will be displayed here. You may delete any accounts included in the list.

Camera Name: Create a unique name for your camera to access the camera in your web-browser. For example: **DCS-6410** (By default).

**Enable OSD:** Select this option to enable the On-Screen Display feature for your camera.

Label: Enter the label name.

**Show time:** Select this option to enable the time-stamp display in the video screen.



# **Backup and Restore**

In this section, you may backup, restore, and reset the settings as well as reboot your camera.

Save To Local Hard You may save and document your current Drive: configuration settings into your computer.

Load From Local
Hard Drive: Locate a pre-saved configuration file by clicking Browse and then restore the predefined settings to your camera by clicking

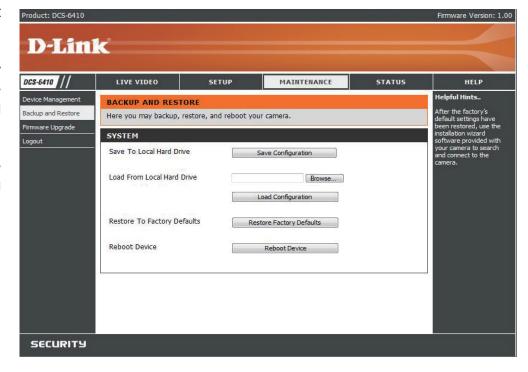
**Load Configuration.** 

Restore To Factory You may reset your camera and restore the

Default: factory settings to your camera by clicking

**Restore Factory Defaults.** 

Reboot Device: This will restart your camera.



# Firmware Upgrade

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.

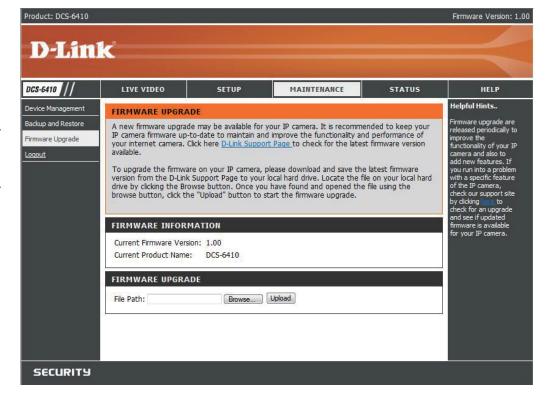
To upgrade the firmware on your DCS-6410, please download and save the latest firmware version from the D-Link Support Page to your local hard drive. Locate the file on your local hard drive by clicking the **Browse** button. Then, open the file and click the "**Upload**" button to start the firmware upgrade.

**Current firmware** It will be automatically determined and **version**: displayed by the system.

Current Product Will display the name of the existing Name: product.

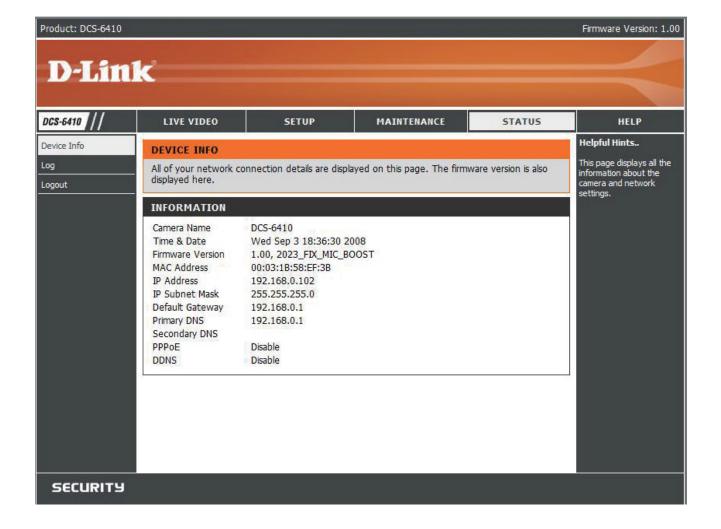
**File Path:** Locate the file (upgraded firmware) on your hard drive by clicking **Browse**.

**Upload:** Start uploading the new firmware to your camera.



# Status Device Info

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

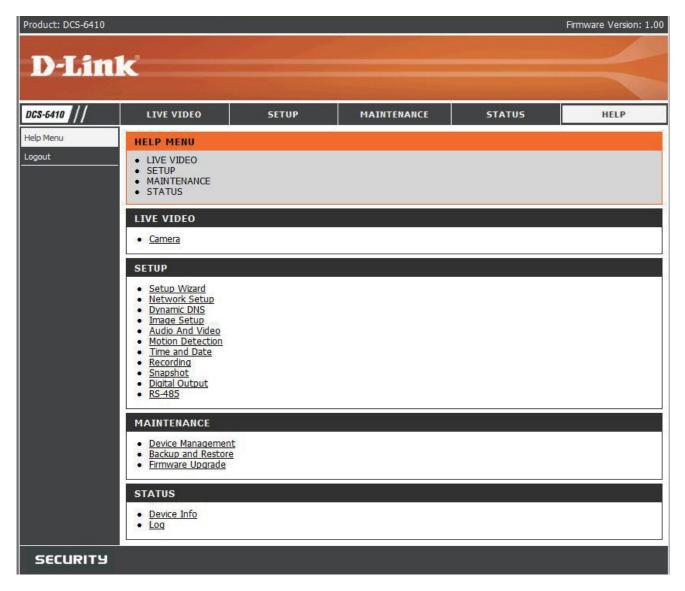


# Log

This page displays the log information of your camera. You may also download the information by clicking **Download**.



# Help



# **Troubleshooting**

### 1. What is a Network Camera?

The Network Camera is a stand-alone system connecting directly to an Ethernet or Fast Ethernet network. It differs from a conventional PC Camera; the Network Camera is an all-in-one system with built-in CPU and Web-based solutions providing a low cost solution that can transmit high quality video images for monitoring. The Network Camera can be managed remotely, accessed, and controlled using any PC/Notebook over an Intranet or the Internet from a Web browser.

# 2. What is the maximum number of users that can be allowed to access DCS-6410 simultaneously?

The maximum number of users that can log onto the Network Camera at the same time is 10. Please keep in mind the overall performance of the transmission speed will slow down when many users are logged on.

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

The Network Camera utilizes MPEG-4, simple profile image compression technology, to provide high quality images.

## 4. Can I capture still images from the Network Camera?

Yes, you are able to capture still images with the snapshot function from the software application CD supplied with the Network Camera or with the snapshot function on the Home page using an Internet browser.

### 5. Can the Network Camera be used outdoors?

The Network Camera is not weatherproof. It needs to be equipped with a weatherproof case to be used outdoors and it is not recommended.

# 6. When physically connecting the Network Camera to a network, what network cabling is required?

The Network Camera uses Category 5 UTP cable allowing 10 Base-T and 100 Base-T networking.

## 7. Can the Network Camera be setup as a PC-cam on a computer?

No, the DCS-6410 Network Camera is used only on a Ethernet or Fast Ethernet network.

### 8. Can the DCS-6410 be connected to the network if it consists of only private IP addresses?

Yes, the Network Camera can be connected to a LAN with private IP addresses.

### 9. Can the DCS-6410 be installed and work if a firewall exists on the network?

If a firewall exists in the network, port 80 is open for ordinary data communication. The DCS-6410 uses port 554 for streaming audio and video. These ports, or the ports you specify from the Advanced Tab in the Configuration screen need to be opened in the firewall.

### 10. Why am I unable to access the DCS-6410 from a Web browser?

If a router or firewall is used on the network, the correct ports for the DCS-6410 may not be configured on the router or firewall. To correct the problem, you need to determine if the DCS-6410 is behind a router or firewall and if the router or firewall is properly configured for the ports the DCS-6410 is using. 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 Network Camera might be faulty.

### 11. Why does the Network Camera work locally but not externally?

This might be caused by network firewall protection. The firewall may need to have some settings changed in order for the Network Camera to be accessible outside your local LAN. Check with the Network Administrator for your network.

Make sure that the Network 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 allow the Network Camera to be accessed outside your local LAN.

# 12. 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 Network Camera image display is incorrect. Through the Advanced > Image Setting section of the Web management you need to adjust the image related parameters such as brightness, contrast, hue 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 router. 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/router, or you need to assign a static IP address, please follow the steps below:

### Step 1

Windows® XP - Click on Start > Control Panel > Network Connections. Windows® 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 router. ? × Internet Protocol (TCP/IP) Properties

> You can get IP settings assigned automatically if your network supports this capability. Otherwise, you need to ask your network administrator fo

Obtain an IP address automatically

Use the following IP address:

Example: If the 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 router (192.168.0.1).

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

### Step 5

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

IP address: 192 . 168 . 0 . 52 255 . 255 . 255 . 0 192 . 168 . 0 . 1 Obtain DNS server address automatically Use the following DNS server addresses Preferred DNS server: Alternate DNS server: Advanced...

# **Technical Specifications**

#### **NETWORK PROTOCOL SUPPORT**

• TCP/IP, RTSP, RTP, RTCP, HTTP, SMTP, FTP, NTP, DNS, DHCP, UPnP, DDNS, PPPoE, ICMP, Samba client, 3GPP

#### **BUILT-IN NETWORK INTERFACES**

10/100BASE-TX Ethernet port

#### **VIDEO ALGORITHM SUPPORT**

- JPEG for still image
- MPEG4/MJPEG dual format compression

#### **VIDEO RESOLUTION**

- 420 TV lines
- Up to 30 frames at 704 x 480 / 352 x 240 / 176 x 120 (NTSC)
- Up to 25 frames at 704x576 / 352x288 / 176x144 (PAL)

#### **VIDEO FEATURES**

- · Adjustable image size and quality
- · Time stamp and text overlays
- Configurable motion detection windows

#### **VIDEO ELECTRONIC SHUTTER**

- NTSC: 1/60 ~ 1/100.000 sec.
- PAL: 1/50 ~ 1/110,000 sec.

#### **3A CONTROL**

• AGC, AWB, AES

#### **VIDEO BIT RATE**

20K to 2M

#### **MIC Input Impedance**

• 4.4k Ohm

#### **AUDIO/VIDEO OUT**

Yes

#### **RESET BUTTON**

Reset to factory default

#### I/O CONNECTOR

- 2 Inputs (Photo relay, Active High: Dropout: 0 VDC)
- 1 Output (photo relay, Close circuit current: AC 70mA or DC 100mA, 400hm; Open circuit voltage: 240 VAC or 350VDC

#### **RS 485**

• 2 pin (485A,485B) (Supported to control external Pan-Tilt device)

#### **SDRAM**

• 64M

#### **FLASH MEMORY**

8 Mbytes

#### **AUDIO SAMPLE RATE**

• GSM-AMR: 12.20kbps, PCM: 8Kbps

#### **IR FUNCTIONS**

- IR Led Count: 6
- · IR distance up to 15M

#### **CAMERA SPECIFICATIONS**

- 1/3" SONY CCD SENSOR, INTERLACE SCAN MODE
- 0.1 lux @ F1.6, IR / 0 lux
- 4.3mm, F1.6

#### LAN

- 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)

# PHYSICAL & ENVIRONMENTAL DIAGNOSTIC LED

- 2 color LED
- Pan Range 170 ~ -170
- Tile Range 60 ~ -15

#### **POWER INPUT**

100-240VAC, 50/60Hz 12VDC 1.25A

#### POWER CONSUMPTION

- 11.04W
- Input: 100-240VAC, 50/60Hz
- Output: 12VDC, 1.25A

#### **DIMENSIONS (WxDxH)**

• 7.68 (W) x 7.09 (H) x 4.33 in (H) (195 x 180 x 110mm)

#### WEIGHT

0.58kg

#### **SECURITY**

- Administrator and user group protected
- · Password authentication

#### SURVEILLANCE SOFTWARE FUNCTIONS

- Remote management/control of up to 32 cameras
- Viewing of up to 32 cameras on one screen
- Supports all management functions provided in web interface
- Scheduled motion triggered, or manual recording options

#### REMOTE MANAGEMENT

- · Configuration accessible via web browser
- Take snapshots/video clips and save to local hard drive via web browser or NAS

#### **SURVEILLANCE**

(Motion detection weekly schedule)

- · Upload snapshots via email
- Upload snapshots via FTP

#### SYSTEM REQUIREMENTS

- Operating System: Microsoft® XP, Vista®
- Browser: Internet Explorer Version 6 above, Firefox 2.0 above, Safari 2.0 above

#### SUPPORTED SOFTWARE

- · Handsets with 3GPP player
- Packet Video Player 3.0
- QuickTime 6.5
- Real Player 10.5

#### **OPERATION TEMPERATURE**

• 0º to 40º C (32º to 104º F)

#### STORAGE TEMPERATURE

• -20° to 70° C (-4° to 158° F)

#### HUMIDITY

20% to 80% non-condensing

#### **EMISSION (EMI), SAFETY & OTHER CERTIFICATIONS**

- FCC
- CE
- C-Tick