

DCS-6110

# Fixed Dome Network Camera

## User Manual

Business Class Networking

# Table of Contents

<b>Product Overview .....</b>	<b>4</b>	Event Setup .....	50
Package Contents.....	4	Add Server .....	52
System Requirements .....	4	Add Media .....	53
Introduction.....	5	Add Event.....	56
Features.....	6	Add Recording .....	57
Hardware Overview .....	8	Access List.....	58
Connections.....	8	DI and DO .....	59
LEDs .....	9	Maintenance .....	60
Hardware Installation .....	10	Device Management .....	60
<b>Software Installation .....</b>	<b>12</b>	Backup and Restore .....	61
Web-based Configuration Utility .....	25	Firmware Update .....	62
Live Video .....	26	Status.....	63
Camera .....	26	Device Info .....	63
Snapshot.....	27	Logs .....	64
Client Setup .....	28	Help .....	65
Setup .....	29	<b>D-ViewCam Installation.....</b>	<b>66</b>
Wizard.....	29	Add a Camera.....	69
Internet Connection Setup Wizard .....	29	<b>Fixed Dome Network Camera Features .....</b>	<b>74</b>
Motion Detection Setup Wizard.....	34	<b>Fixed Dome Network Camera Installation.....</b>	<b>75</b>
Network Setup .....	37	<b>Networking Basics .....</b>	<b>78</b>
Dynamic DNS .....	43	Check your IP address .....	78
Image Setup .....	44	Statically Assign an IP address .....	79
Video.....	45		
Motion Detection.....	46		
Time and Date .....	49		

**Reset and Restore ..... 80**

**External I/O Port ..... 81**

**Technical Specifications ..... 82**

**Contacting Technical Support ..... 84**

**Warranty ..... 85**

**Registration..... 91**

## Package Contents

- D-Link DCS-6110 Fixed Dome Network Camera
- CAT5 Ethernet Cable
- Power Adapter
- Dome Enclosure
- Ring Enclosure
- Screw Driver
- Screws
- I/O Connector Plug
- Alignment Stencil
- Manual and Software on CD
- Quick Install Guide

**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® XP or Windows Vista®
- At least 256MB of memory (512MB recommended)
- An available Ethernet connection
- Internet Explorer 6.x or higher
- 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

DCS-6110 Fixed Dome Network Camera is cost-effective and an ideal security solution providing high quality real-time videos in MPEG-4 and JPEG compression for small to medium-sized businesses, offices and homes. The DCS-6110 features 3G mobile video support, enabling you to view a live video feed from your camera on a compatible 3G mobile phone or PDA anywhere in your 3G coverage area. The 3G mobile video support allows you to monitor a remote location without using a computer or an internet connection. In addition supports dual stream output for simultaneous live monitoring and high resolution recording. D-ViewCam software is also included to manage up to 32 cameras simultaneously from your computer, send automated e-mail alerts, and record video to your hard drive when motion is detected. The DCS-6110 is a deluxe-size dome network camera, giving you a more professional look to your business or location making it an excellent choice for home and business surveillance.

**Note:** *Use of video equipment for recording the image 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

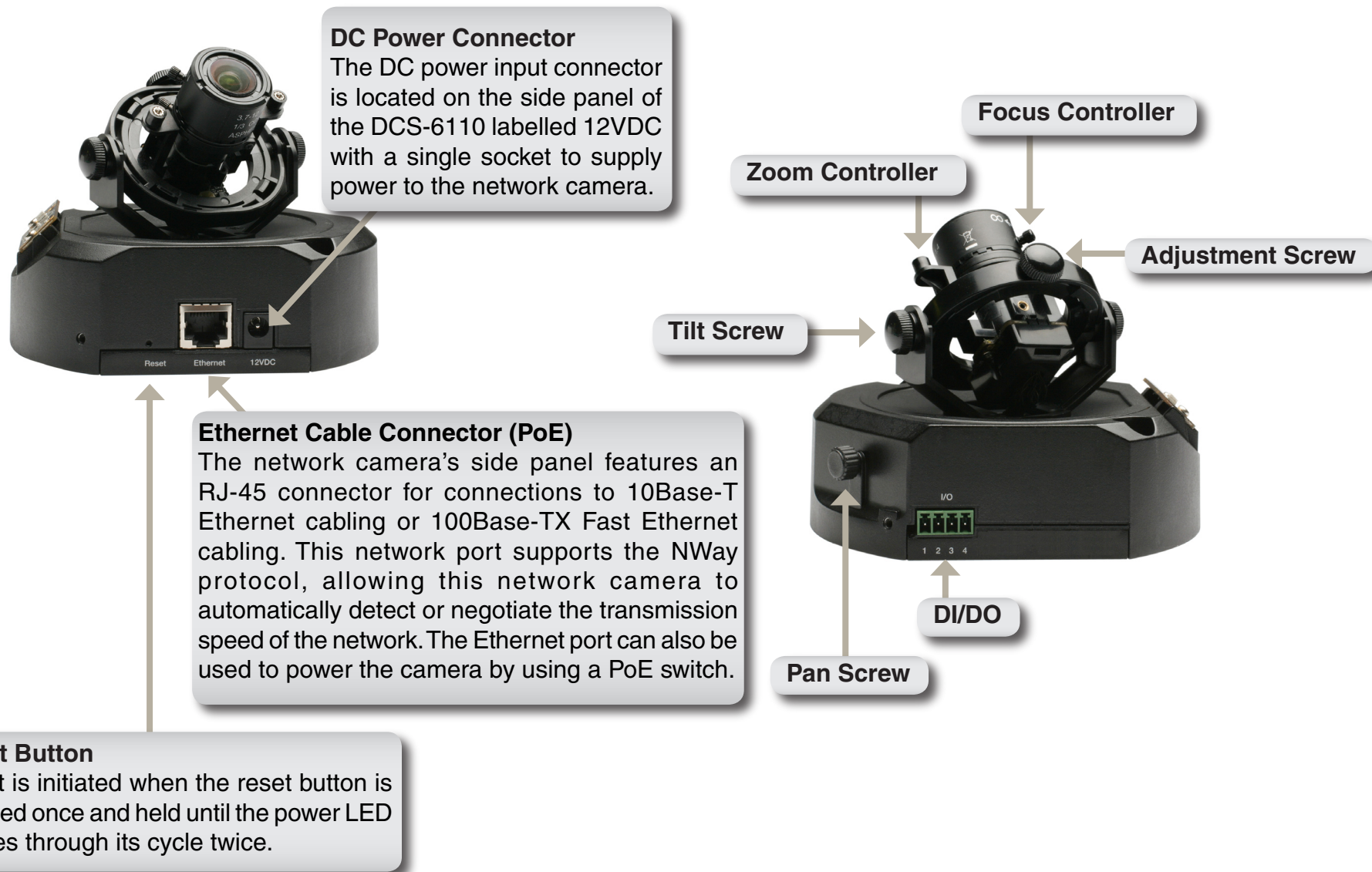
- **Powerful Surveillance** - DCS-6110 targets entry level market. The VGA Progressive CMOS technology delivers exceptional picture quality. Use D-Link's SoC (system-on-chip) products to provide high quality real-time video compression in MPEG-4 and Motion JPEG formats. DCS-6110 supports simultaneous dual-streaming for live monitoring and recording. With the free-bundled 32-channel recording software, the DCS-6110 is an ideal solution for high quality viewing and reliable recording.
- **Sharp Image Monitoring From Different Angles** - The DCS-6110 is recommended for indoor ceiling mounting, and thus prevents possible damage that maybe caused by a burglar. This network camera has a built-in three axis mechanism for wall mount installation. The DCS-6110 provides high quality real-time videos in MPEG-4 and MJPEG compression with VGA/QVGA/QQVGA resolution. It is suitable for narrow space surveillance, like an elevator.
- **View Live Video from a 3G Mobile Phone** - The live camera feed of the camera can be pulled from the 3G cellular network by using a compatible cell phone or PDA with a 3G video player. Anywhere within the 3GPP service area, users are offered a flexible and convenient way to remotely monitor a home or office in real time.
- **Wired PoE Access** - For effective surveillance in and around a building, this camera comes with a built-in 802.3af compliant Power Over Ethernet (PoE) module, which eases the installation process and also gives you the freedom to place the camera where it's needed. In addition, the 10/100BASE-TX Ethernet port is also provided for convenient connection to an Ethernet network or to a broadband Internet via a gateway router.
- **Smart & Easy To Use** - The software allows you to view up to 32 cameras on a single computer screen at one central location. Users can set up automated e-mail alerts to be instantly informed of unusual activities. Fixed dome cameras usually uses fixed focus lens, but the DCS-6110 also has a vari-focal lens. Vari-focal lens provides easier installation process because the board lens of dome camera is not like CS/C mount lens, it is not changeable. Drop ceiling bracket is another alternative option for an installation method. In addition, this network camera supports the Universal Plug-n-Play feature, which allows computers running on Windows 2000/XP/Vista to automatically recognize the camera and adds it to the network. Sign up with one of the free Dynamic DNS services available on the web, to assign a name and domain to the camera (e.g.mycamera.dlinkddns.com). This allows users to remotely access the camera without having to remember the IP address.

- **Supports a Variety of Protocols** - The DCS-6110 supports a wide variety of protocols such as RTSP, FTP, SMTP, NTP and HTTP. In addition, it supports UPnP and DDNS. DDNS allows your camera to be accessed using a static host name rather than an IP address. UPnP allows Windows® XP/Vista users to easily find and connect to the camera.
- **Web Configuration** - Using a Web browser, administrators can configure and manage the network camera directly from its own Web page via Intranet or Internet. Up to 20 user with unique names and passwords are permitted, with the privilege settings controlled by the administrator.
- **Connection to External Devices** - Supporting auxiliary Input/Output connectors, you can connect the Network 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 Network Camera provides an industry standard in/out external connector for connectivity.

**Note:** Use of video equipment for recording the image 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.

# Hardware Overview

## Connections



# Hardware Overview

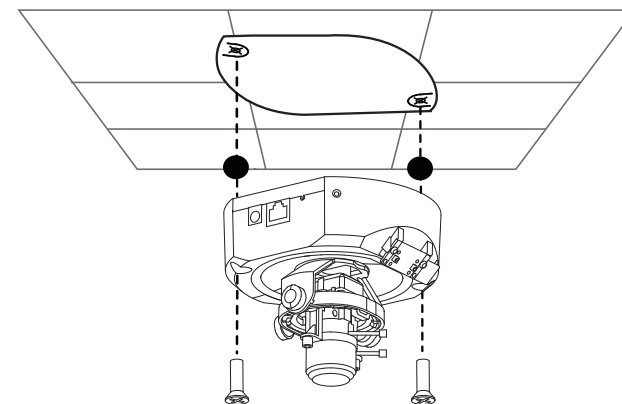
## LEDs



# Hardware Installation

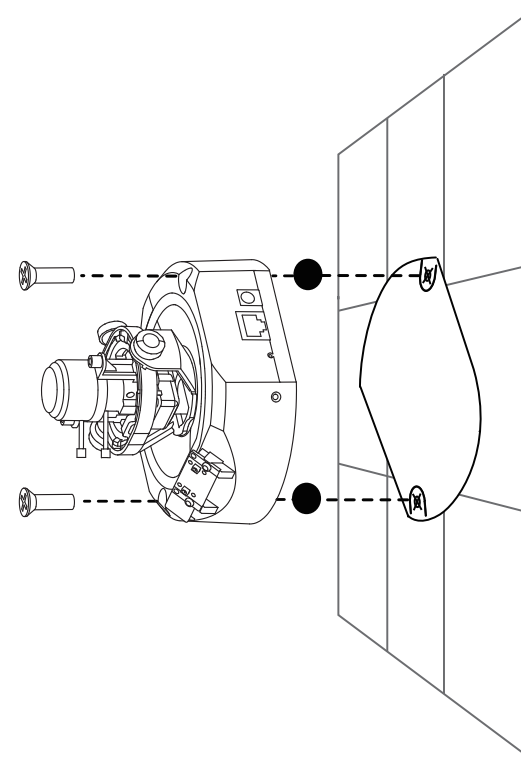
## When Mounting to a Ceiling

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.



## When Mounting to a Wall

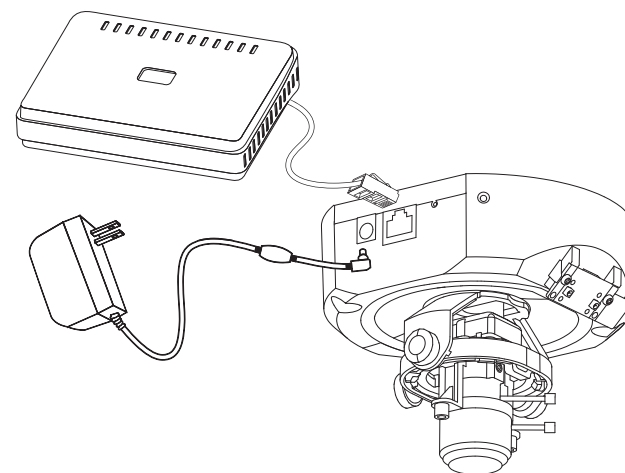
Find a suitable place to install the camera by using the alignment stencil to find a desired operating location on the wall. Drill two pilot holes where the holes of the alignment stencil are located. Insert the supplied plastic anchors into the drilled holes, and align the holes at the base of the camera with the plastic anchors. Once aligned, insert the provided screws through the holes. Use a screwdriver to tighten and secure.



# Network Deployment

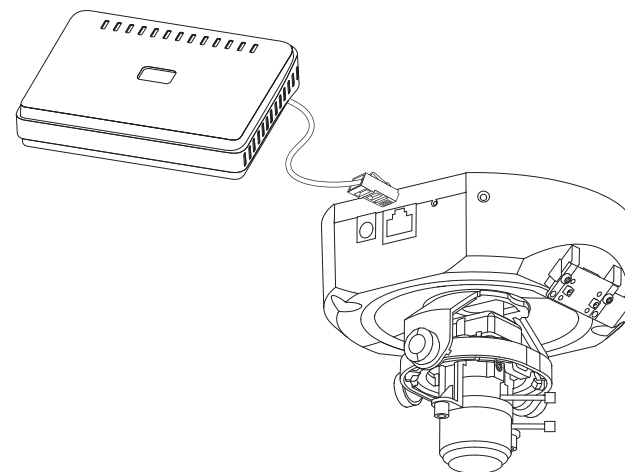
## General Connection (without PoE)

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-6110 Autorun CD into the CD-ROM drive. The following step-by-step instructions displayed are shown when using Windows Vista® operating system. The steps and screens are similar when using other Windows operating systems.

Click on **Installation Wizard** to begin software installation.



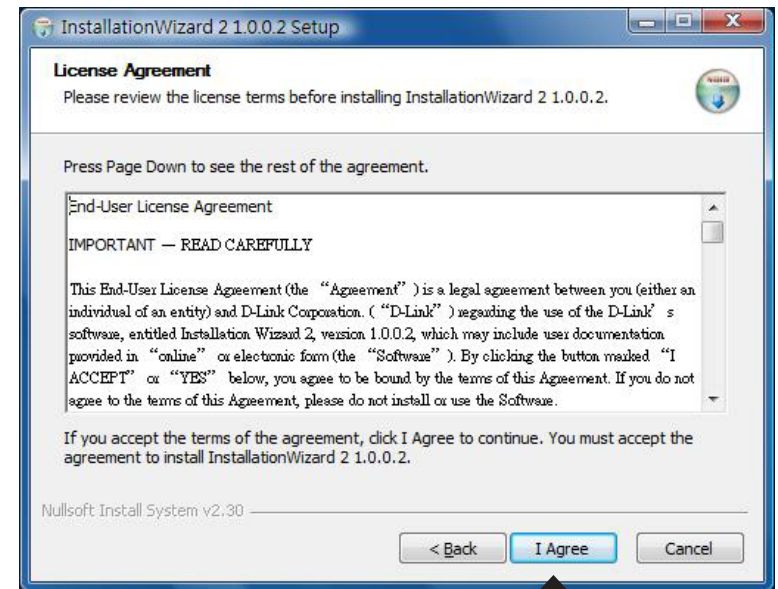
The Installation Setup Wizard window will pop up. Click **Next** to continue.



Click **Next**



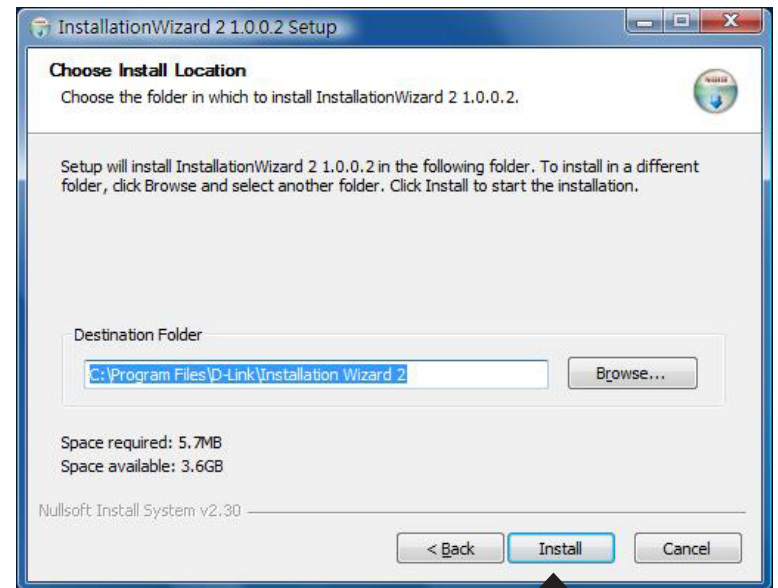
Click **I Agree** to accept the License Agreement.



Click **I Agree**

Click the **Browse** button if you would like to change the destination of installation, otherwise click **Install** to continue.

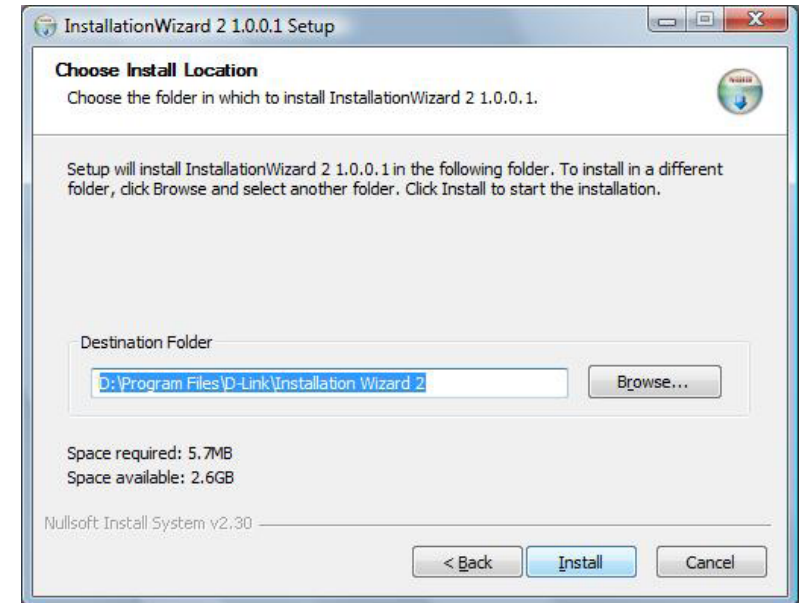
**Note:** Installation may take several minutes to complete.



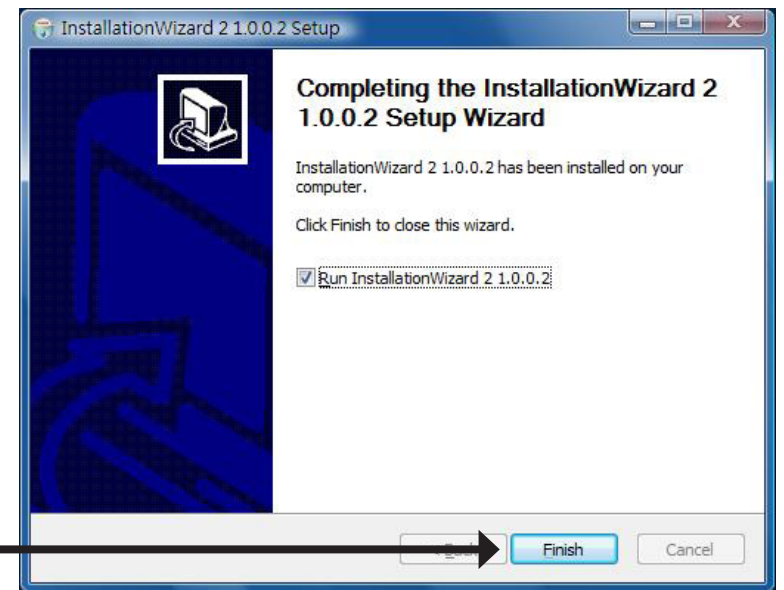
Click **Install**

To start the installation click **Install**.

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



Click **Finish** to complete installation and the D-Link Installation Wizard window will pop up for camera configuration.



Click **Finish**

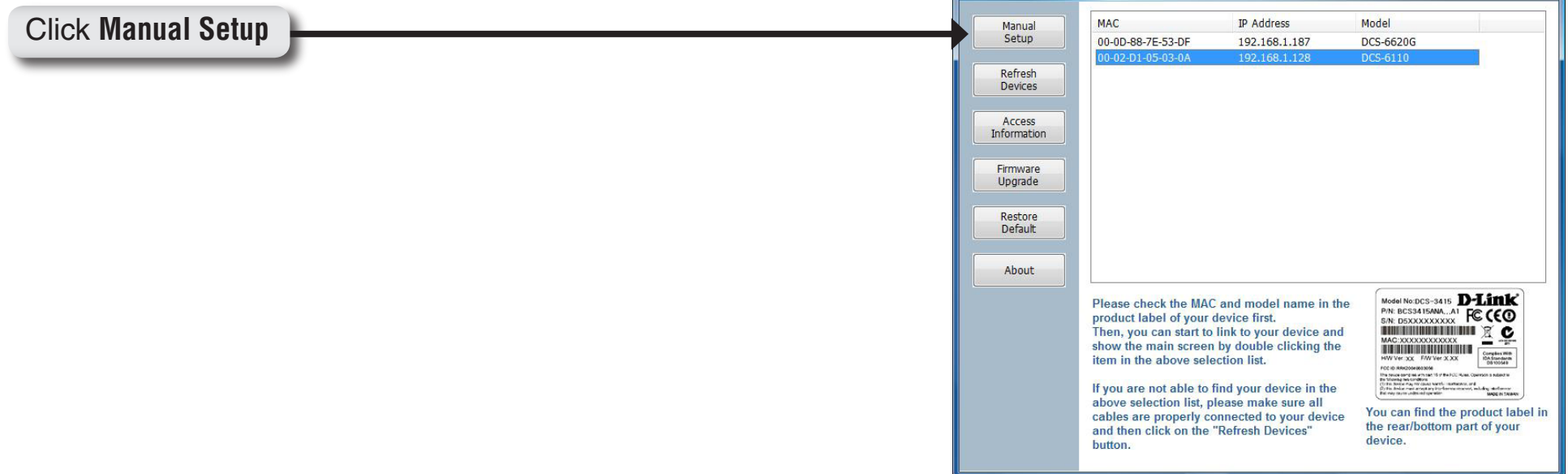
# Configuring Your Camera with the Installation Wizard

If the **D-Link Installation Wizard** window does not pop up after completion of software installation, click on the icon that was created in your Windows Start Menu.

The Installation Wizard will appear and show the MAC address and IP address of your DCS-6110, which may appear to be different from the actual address depending on what your device is 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.

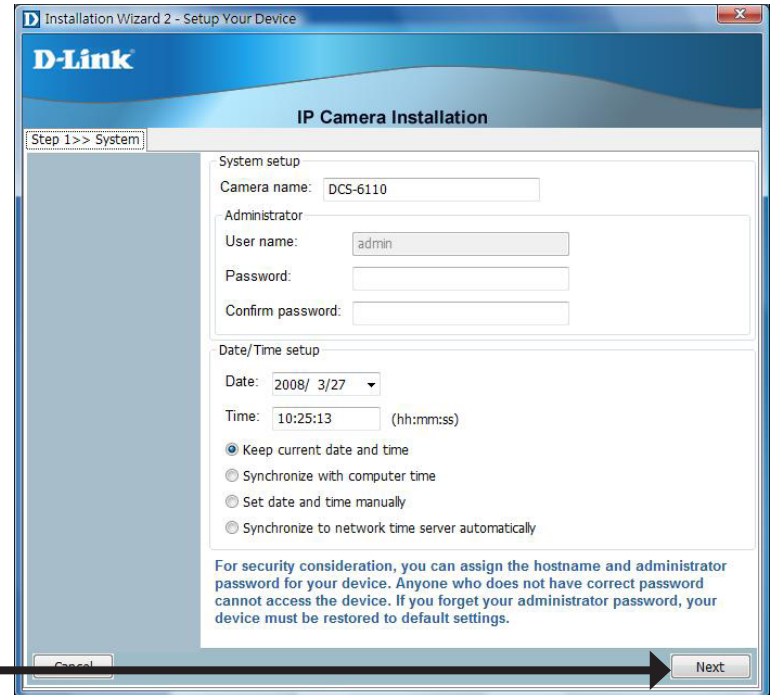
To begin setup, single-click on the DCS-6110 located in the camera list and click **Manual Setup** located on the left of the Installation Wizard.



Enter a password, and confirm the password for the admin ID and click **Next**.

**Note:** The default administrator username is **admin** and the password may be left blank. The password can be changed after installation.

Click **Next**



The image shows a screenshot of the D-Link IP Camera Installation Wizard, Step 1: System Setup. The window title is "Installation Wizard 2 - Setup Your Device". The D-Link logo is at the top. The main heading is "IP Camera Installation". Below this, a progress bar shows "Step 1 >> System". The "System setup" section contains the following fields and options:

- Camera name: DCS-6110
- Administrator:
  - User name: admin
  - Password: (empty)
  - Confirm password: (empty)
- Date/Time setup:
  - Date: 2008/ 3/27
  - Time: 10:25:13 (hh:mm:ss)
  - Options:
    - ☒ Keep current date and time
    - ☐ Synchronize with computer time
    - ☐ Set date and time manually
    - ☐ Synchronize to network time server automatically

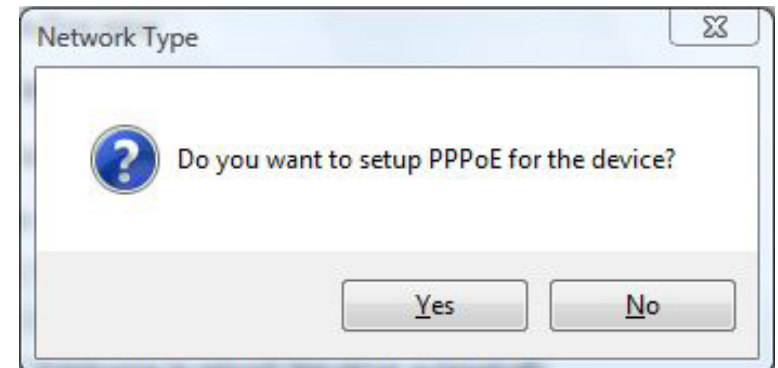
At the bottom, there is a "Cancel" button on the left and a "Next" button on the right. A black arrow points from the "Click Next" text to the "Next" button. A security warning is displayed at the bottom of the wizard:

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.

## PPPoE Setup

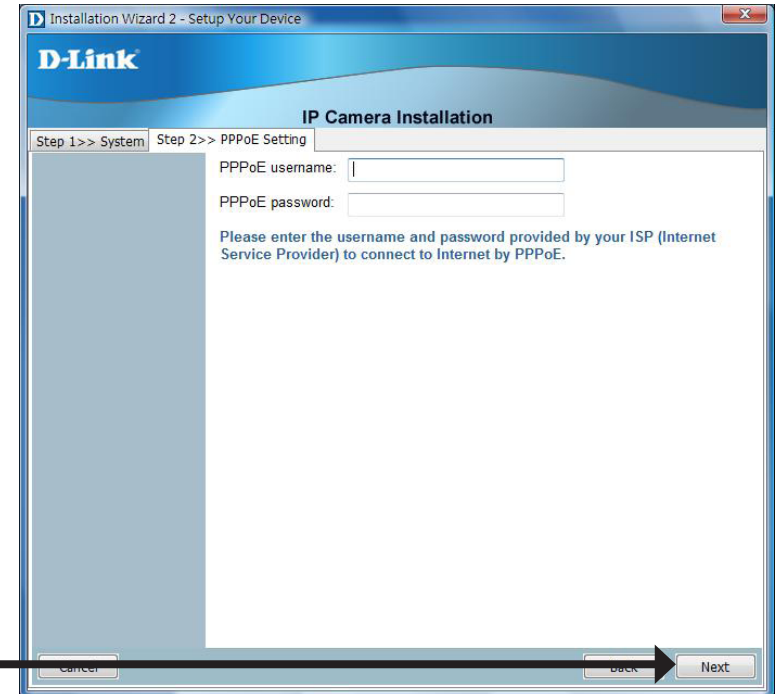
The **Network Type** screen displays will pop up to ask if you want to setup PPPoE for the device. Click **No** for quick setup and skip to page 18.

**Note:** By using PPPoE, users can virtually dial from one machine to another over an Ethernet network, establish a point to point connection between them and then securely transport data packets over the connection.



The **PPPoE Setting** screen displays. Enter the username and password provided by your ISP to connect to the Internet by PPPoE.

Click **Next** and skip to the setup screen as seen in page 19.



Click **Next**

Check the **Get IP by DHCP Server automatically** box to obtain a new IP address every time the camera starts up. Click **Next** to continue.

Click **Next**

Installation Wizard 2 - Setup Your Device

**D-Link**

**IP Camera Installation**

Step 1 >> System Step 2 >> Network Setting

☒ Get IP by DHCP Server automatically

IP address: 192.168.1.128

Subnet mask: 255.255.255.0

Default gateway: 192.168.1.1

Primary DNS server: 168.95.1.1

Secondary DNS server: 168.192.1.1

Next

Select **UPnP Port Forwarding** if your router supports this function. If not, choose **Manual** to manually enter your port numbers. Click **Next** to continue.

Click **Next**

Installation Wizard 2 - Setup Your Device

**D-Link**

**IP Camera Installation**

Step 1 >> System Step 2 >> Network Setting Step 3 >> Ports

If your device is located behind the router and you want to access it on Internet, your router must be configured. UPnP (Universal Plug and Play) technology will configure your router automatically if your router supports it. If your router does not support UPnP port forwarding, you need to configure the port numbers manually.

The wizard has detected that your router does not support UPnP port forwarding. Choosing the "Manual (Advanced)" radio button is recommended, and please also remembering to configure the port numbers in your router if you want to access the device on Internet.

☐ UPnP port forwarding

☒ Manual (Advanced)

Manual port mapping

HTTP port: 8080

RTSP port: 554

RTP video port: 5556

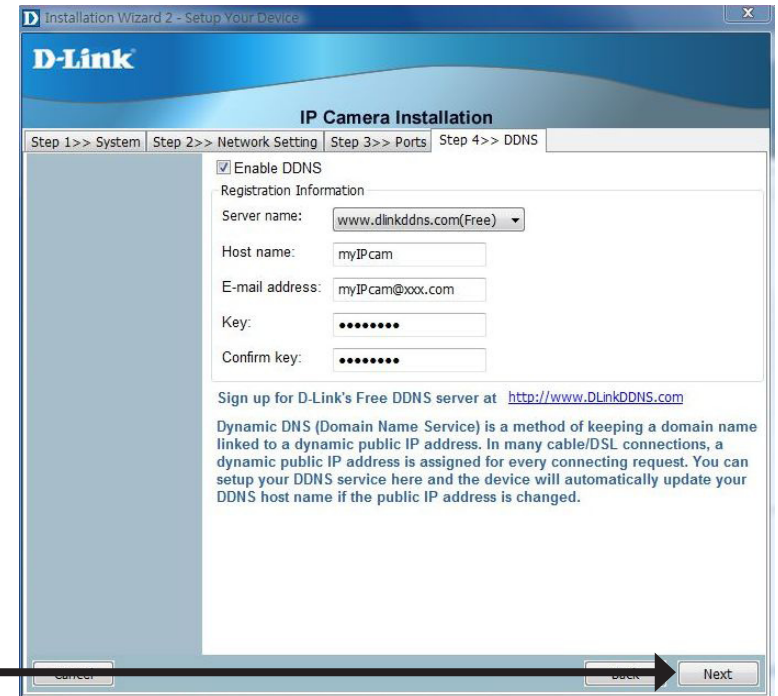
RTCP video port: 5557

RTP audio port:

RTCP audio port:

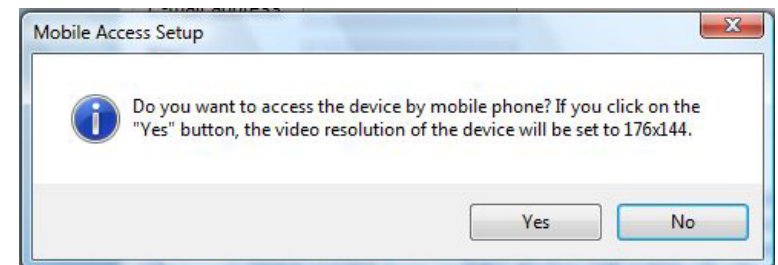
Next

Click **Next** to continue.



Click **Next**

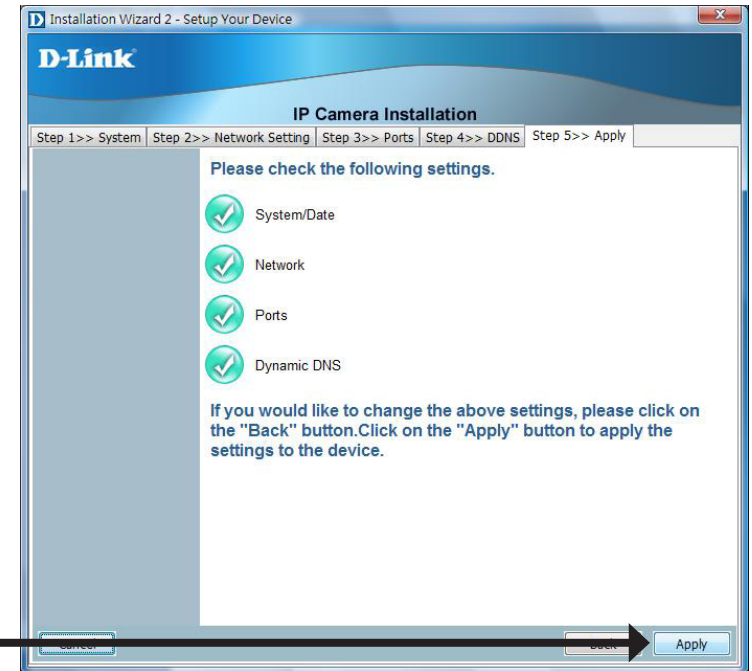
A window will pop up asking you if you want to access the DCS-6110 via mobile phone. Clicking **Yes** will set the video resolution to 176x144.





Click **Apply** to apply the settings listed in the window to the device. Application may take a few minutes to process.

Click **Apply**



A window will pop up to confirm that the application was successfully configured. Click **OK** to continue.

A new window will pop up displaying the links/addresses to access your device. Click **Add to my favorite** to save the address and then click **Exit** to complete the installation.

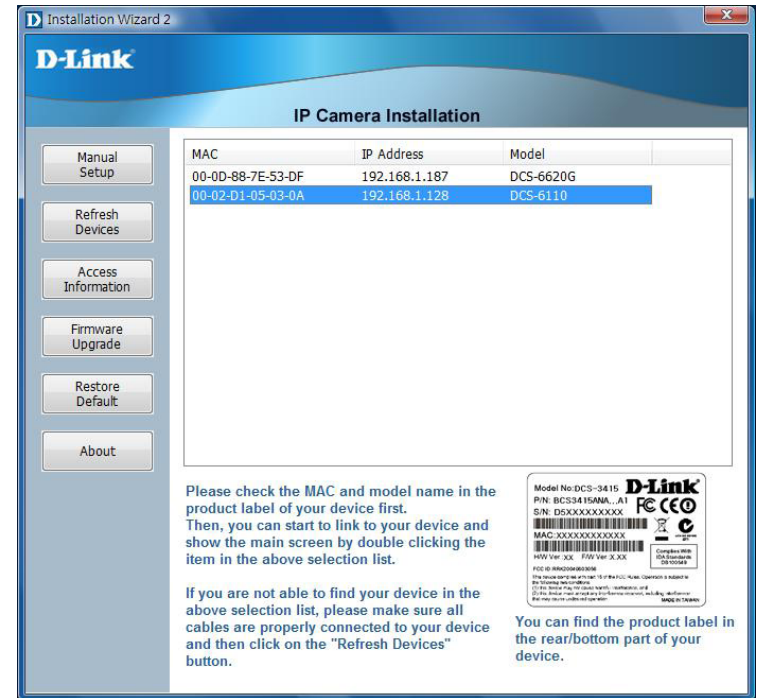
Click **Exit**



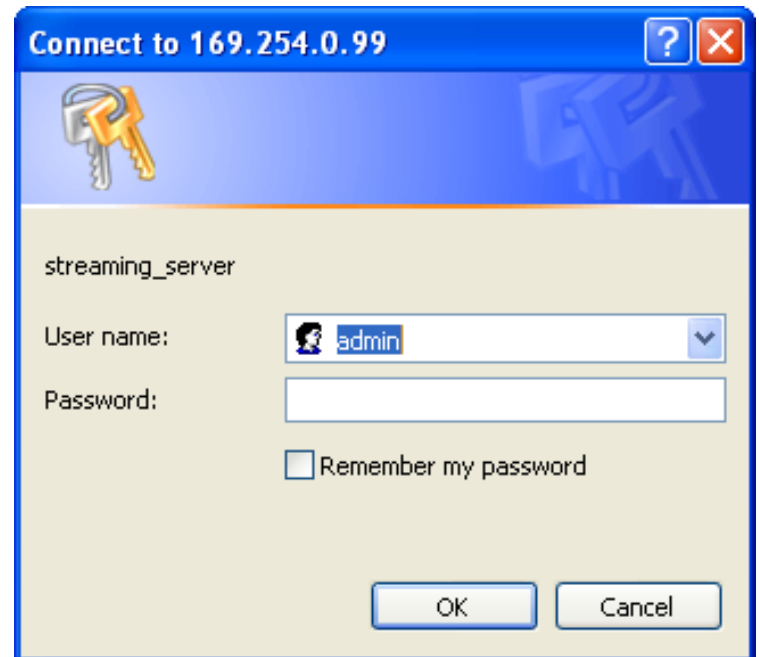


Double-click **DCS-6110** in the Installation Wizard window to launch the camera's web configuration page.

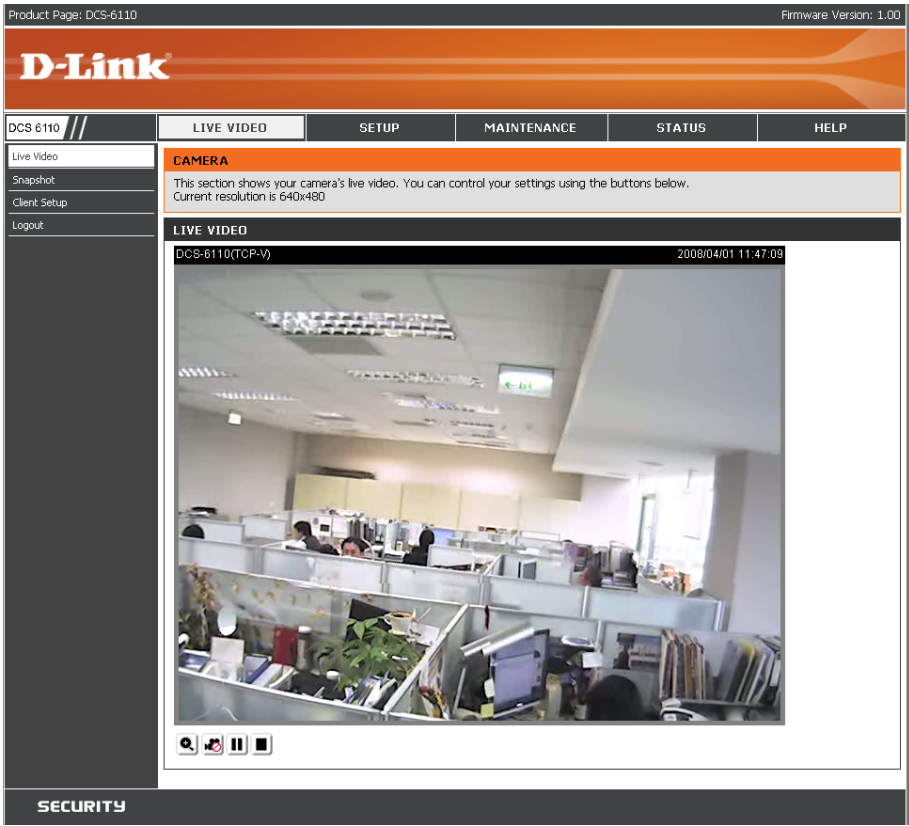
**Note:** Please see the user manual for more information.



Enter **admin** as the default username and leave the password blank. Click **OK** to continue.



This section shows your camera's live video. You can control your settings using the buttons at the bottom. For more information on using the web configuration, please refer to the user manual.



# Adjusting the Lens

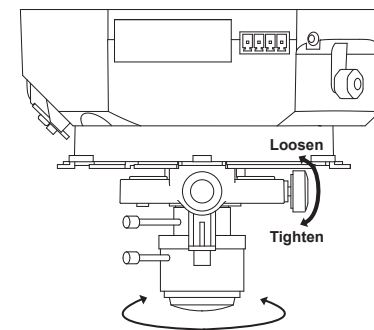
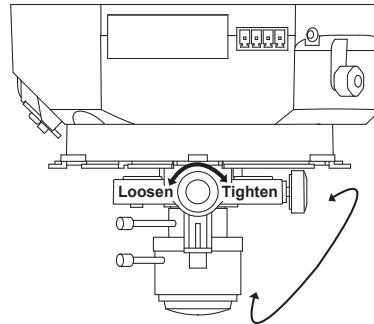
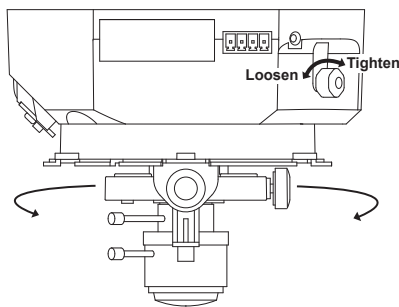
Based on the live image retrieved from the camera, adjust the camera lens by performing the following procedures:

## Adjusting the Viewing Angle

Loosen the pan screw and turn the lens module left and right until the desired position is achieved; tighten the pan screw once completed.

Loosen the tilt screws on both sides of the camera, and turn the lens module up and down until the desired position is achieved; tighten the tilt screws once completed.

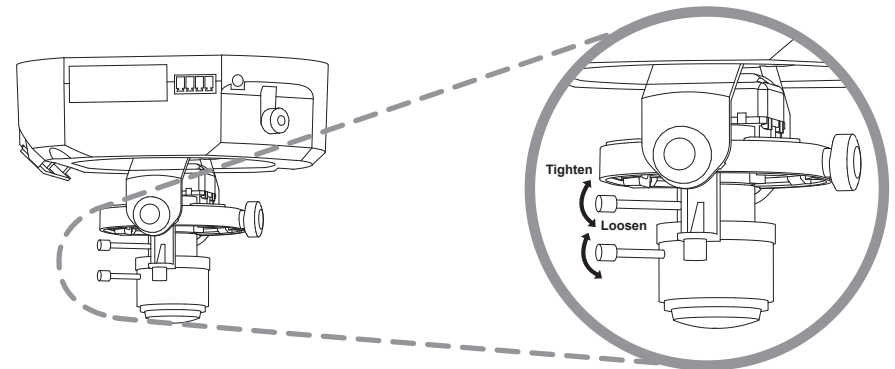
Loosen the image adjustment screw and turn the lens to adjust the network camera's image until the desired orientation is achieved, tighten the image adjustment screw once completed.



## Adjusting Zoom and Focus

Loosen the zoom controller and adjust the zoom factor by moving the controller left and right until the desired range is achieved; tighten the zoom controller once completed.

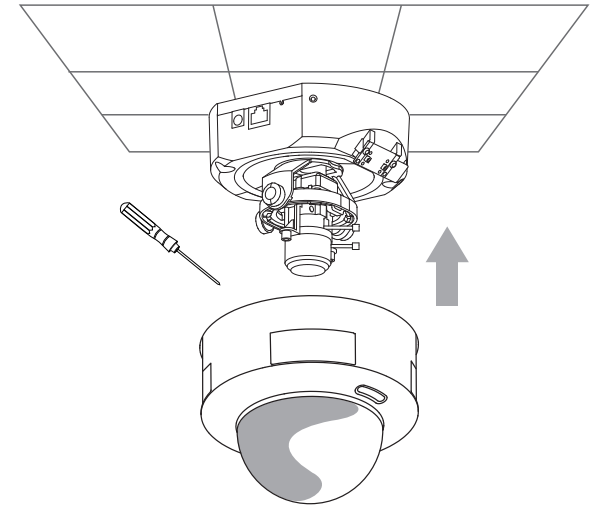
Loosen the focus controller and adjust the focus range by moving the controller left and right until the image is clear; tighten the focus controller once completed.



## Attaching the Enclosure

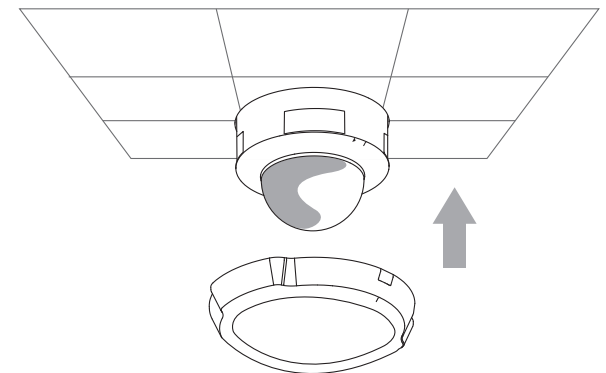
Once the lens is properly adjusted, rearrange the light shield so that it will not obstruct the lens during surveillance.

Place the dome enclosure over the network camera so that the LED sticker on the dome enclosure is properly aligned with the camera's LED. Insert the supplied screws into the two holes located at the base of the dome enclosure, tighten until secure.



Place the ring enclosure over the dome enclosure. Once placed, gently turn the ring enclosure clockwise until it locks and is securely attached to the dome enclosure.

**Note:** When attaching the ring enclosure, be sure to first align the line on the ring enclosure with the triangle on the dome enclosure. When attachment is successfully made, the line on the ring enclosure will be aligned with the line on the dome enclosure.

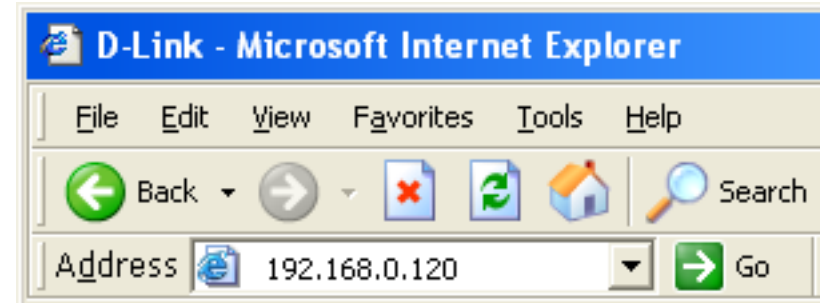


# Web-based Configuration Utility

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://192.168.0.120>)

**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 60 to change the password for your admin account.



Click **OK**

# Live Video Camera

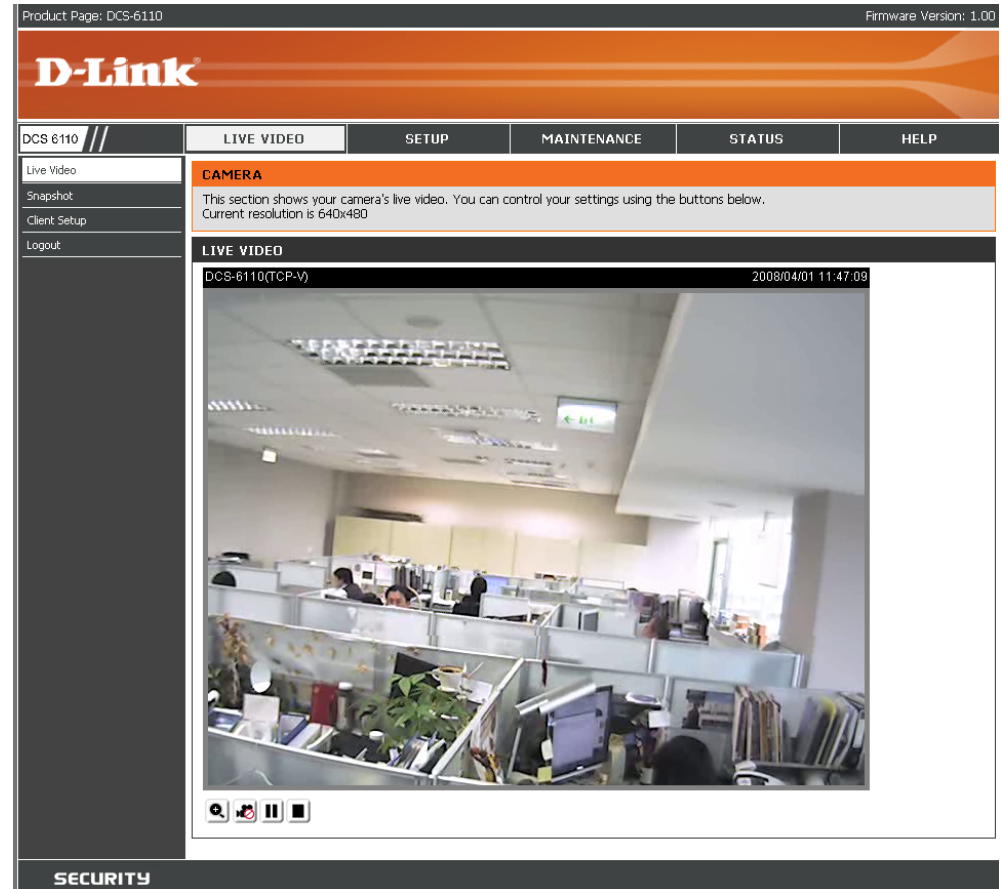
This section shows your camera's live video. You can control your settings using the buttons below.

**Zoom:** “-” zooms out, and “+” zooms in

**MP4 Recording:** Start and stop MP4 recording

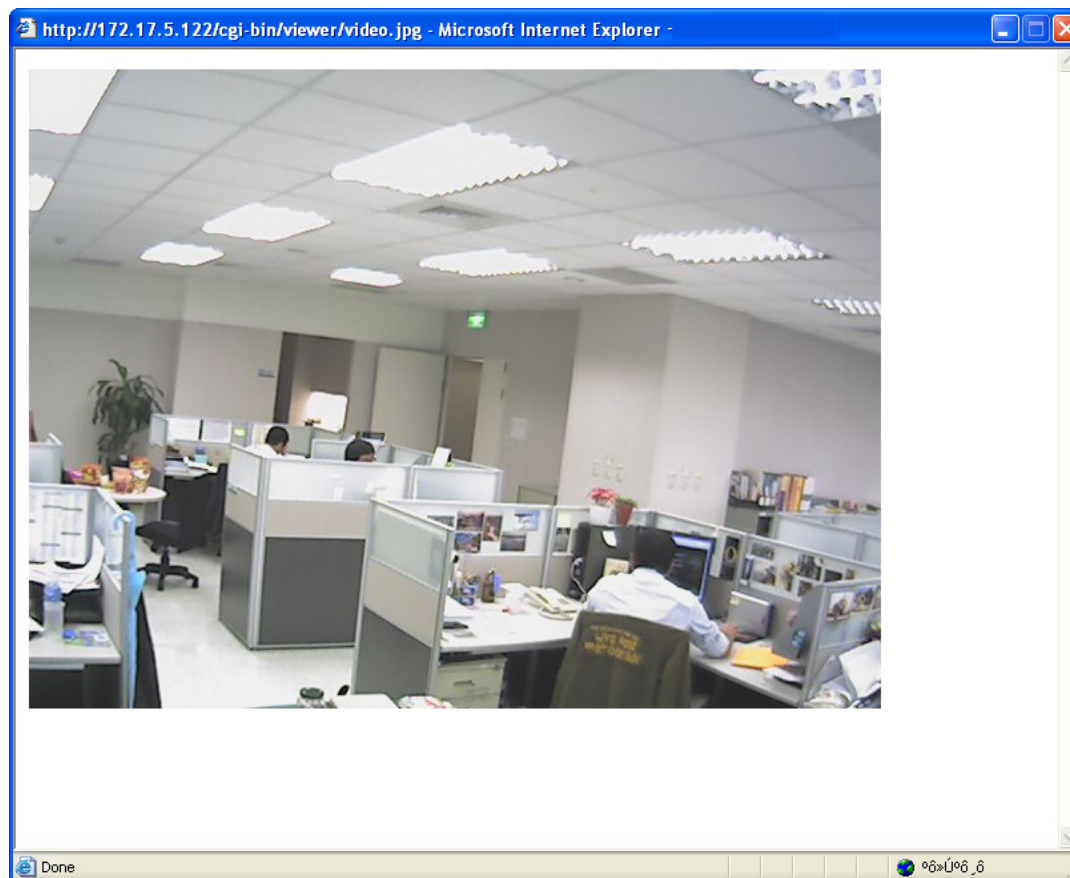
**Pause:** To pause live video

**Stop:** Stop streaming live video



## 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.

**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 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 UDP connections will not be available to remote users if all four ports have not been forwarded (as shown on page 37). 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.

Product Page: DCS-6110 Firmware Version: 1.00

**D-Link**

DCS 6110 // **LIVE VIDEO** **SETUP** **MAINTENANCE** **STATUS** **HELP**

Live Video  
Snapshot  
Client Setup  
Logout

**CONNECTION TYPE**  
Here you can configure the audio and video settings as well as the type of connection your camera uses when viewing it on a network.  
Save Settings Don't Save Settings

**STREAM OPTIONS**  
☒ Stream1  
☐ Stream2

**PROTOCOL OPTIONS**  
☐ UDP unicast  
☐ UDP multicast  
☒ TCP  
☐ HTTP

**RECORD OPTIONS**  
Folder: c:\Record Browse...  
File Name Prefix: CLIP  
☒ Add date and time suffix to file name  
Save Settings Don't Save Settings

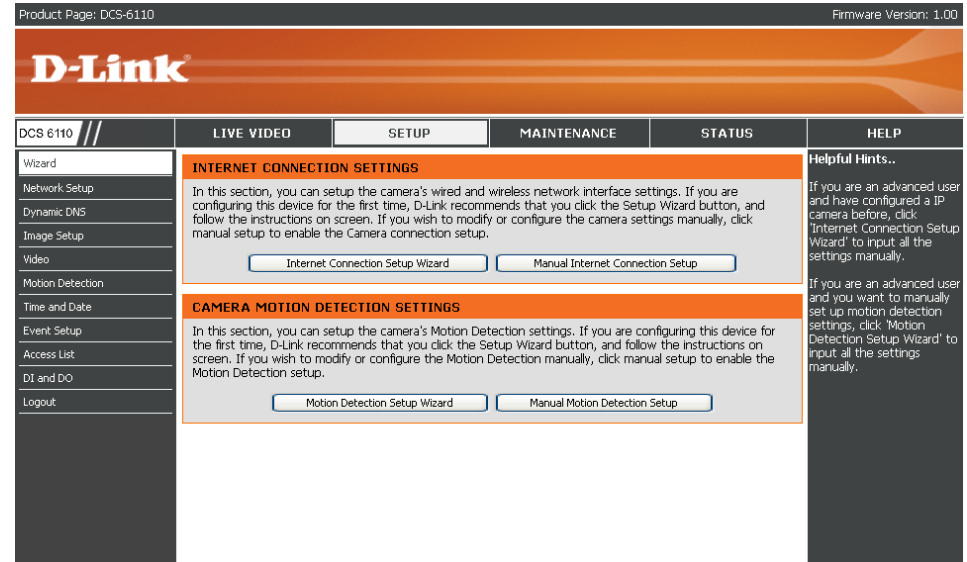
**Helpful Hints..**  
**Stream Options** - This camera can send 2 streams simultaneously, it can have different configuration for each stream, you can find stream setup at the Setup/Video and Audio setup page.  
**Media Options** -  
• Video and Audio: Stream Video and Audio data at the same time with synchronization.  
• Video only: Stream video data only.  
• Audio only: Stream Audio data only.  
**Protocol Options** -  
• UDP Protocol: This allows quality real-time performance for audio and video. Some packets may be lost due to network burst traffic and images may be obscured.  
• TCP Protocol: Packet loss is less likely to occur and video displays are more accurate.  
**Record Option** -  
• Folder: Select target record folder. Default folder is C:\Record, if this folder doesn't exist, system will create it when first recording. If this folder is invalid, it will cause recording fail. It can assign a network folder.  
• File name prefix: Add every recorded file with this file name prefix.  
• Add date and time suffix to file name: If checked every file name will distinguished by recording date and time. If no date and time suffix assign, system will use serial number for file name.



# Setup Wizard

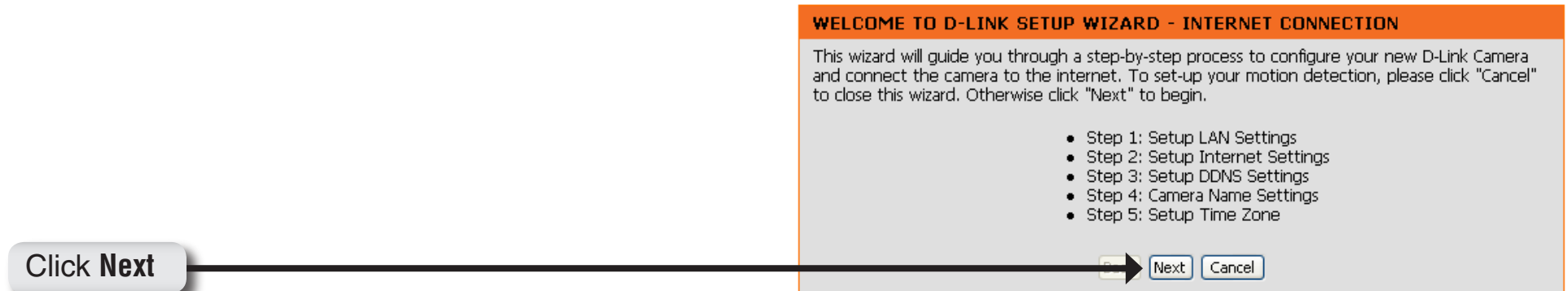
To quickly configure your network camera, click **Internet Connection Setup Wizard**, or click **Manual Internet Connection Setup** to manually configure your network camera.

To quickly configure your network camera's motion detection settings, click **Motion Detection Setup Wizard** and skip to page 34. If you want to enter your settings without running the wizard, click **Manual Motion Detection Setup** and skip to page 46.



## 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 32.

Click **Next**

#### 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 an 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

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 31.

Click **Next**

#### 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 an 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

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 an 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**

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

Click **Next**

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.

**STEP 3: SETUP DDNS SETTINGS**

If you have a Dynamic DNS account and would like the camera to update your IP address automatically, enable DDNS and enter in your host information below. Please click on the Next button to continue.

☐ Enable DDNS

Server name

Host name

User name

Password

Confirm password

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

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

Enable Daylight Saving ☐

Daylight Saving Dates

	Month	Week	Day of Week	Time
DST Start	<input type="text" value="Oct"/>	<input type="text" value="2nd"/>	<input type="text" value="Sun"/>	<input type="text" value="1 am"/>
DST End	<input type="text" value="Mar"/>	<input type="text" value="1st"/>	<input type="text" value="Sat"/>	<input type="text" value="1 am"/>

Click **Next**

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.

IP address:	DHCP
Camera Name:	DCS6110
Time Zone:	-8
DDNS:	OFF
PPPoE:	OFF

[Back](#) [Apply](#) [Cancel](#)

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:	DCS6110
Time Zone:	-8
DDNS:	OFF
PPPoE:	ON

[Back](#) [Apply](#) [Cancel](#)

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.

IP address:	192.168.0.100
Camera Name:	DCS6110
Time Zone:	-8
DDNS:	OFF
PPPoE:	OFF

[Back](#) [Apply](#) [Cancel](#)

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.

### WELCOME TO D-LINK SETUP WIZARD - MOTION DETECTION

This wizard will guide you through a step-by-step process to configure your camera's motion detection functions. To setup the internet connection settings, please click "Cancel" to close this wizard. Otherwise click "Next" to begin.

- Step 1: Specify motion detection Area Settings
- Step 2: Motion Detection Schedule
- Step 3: Alerts and Notifications

Click **Next**

Next Cancel

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 or 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 ☒ Snapshot ☐ Video Clip



Back Next Cancel

Click **Next**

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

**Note:** Recording camera footage will take up space on your hard drive. It is 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.

Click **Next**

#### STEP 2: MOTION DETECTION SCHEDULE

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

☒ Sun ☒ Mon ☒ Tue ☒ Wed ☒ Thu ☒ Fri ☒ Sat

Time ☒ Always

☐ From 00 00 to 24 00

Back Next Cancel

#### STEP 3: ALERTS AND NOTIFICATION

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.

☒ Do not notify me

☐ Notify me by E-mail

User name

Password

SMTP(mail) Server

Return E-mail Address

Recipient email address

☐ Notify me by FTP

User name

Password

Server address

Remote folder name

Server port

Passive mode

21

☒

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

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

## How does UPnP work?

UPnP™ networking technology provides automatic IP configuration and dynamic discovery of devices added to a network. Services and capabilities offered by networked devices, such as printing and file sharing, are available among each other without bothersome network configuration. In the case of Network Cameras, you will see Network Camera shortcuts at My Network Places.

Product Page: DCS-6110 Firmware Version: 1.00

**D-Link**

DCS 6110 // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

**NETWORK SETUP**  
You can configure your LAN and internet settings from here.

**LAN SETTINGS**

☐ DHCP  
☐ Static IP Client

IP address: 172.17.5.79  
Subnet mask: 255.255.255.0  
Default router: 172.17.5.254  
Primary DNS: 192.168.168.210  
Secondary DNS: 192.168.168.250

☒ Enable UPnP presentation  
☒ Enable UPnP port forwarding  
Error: Router does not support UPnP port forwarding.

**PPPOE SETTINGS**

☐ Enable ☐ Disable

User name: default  
Password: \*\*\*\*\*  
Confirm password: \*\*\*\*\*  
Connect Status: none

Save Settings Don't Save Settings

**HTTP**

Authentication: basic  
HTTP port: 80  
Secondary HTTP port: 8080  
Access name for stream1: video.mjpg  
Access name for stream2: video2.mjpg

**FTP**

FTP port: 21

**RTSP STREAMING**

Authentication: disable  
Access name for stream1: live.asp  
Access name for stream2: live2.asp  
RTSP port: 554  
RTP port for video: 5556  
RTCP port for video: 5557

☐ Enable multicast for stream 1  
Multicast group address: 239.128.1.99  
Multicast video port: 5560  
Multicast RTP video port: 5561  
Multicast TTL(1-255): 15

☐ Enable multicast for stream 2  
Multicast group address: 239.128.1.100  
Multicast video port: 5564  
Multicast RTP video port: 5565  
Multicast TTL(1-255): 15

Save Settings Don't Save Settings

**SECURITY**

**Helpful Hints..**

Select "DHCP Connection" if you are running a DHCP server on your network and would like an IP address assigned to your IP camera.

Port Detail Settings allow you to specify the ports that you reserve for HTTP and RTSP Streaming.

HTTP Port is the port you allocate in order to connect to the IP camera via a standard web browser.

RTSP Port is the port you allocate in order to connect to streaming mobile devices such as mobile phone or PDA.

RTSP streaming: "Authentication" if enable authentication, you will need below "access name" for RTSP connection. For example, if authentication is disable, you can connect like: RTSP://camera ip/ ; if authentication is enable, you need connect camera RTSP stream like: RTSP://camera ip/live.asp. (live.asp is default access name, you can revise it below options).

Multicast group address: An IP Multicast group address is used by sources (the camera) and the receivers (the client connection) to send and receive content. Sources use the group address as the IP destination address in their data packets. Receivers use the 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 229.1.1.1, the source will send data packets destined to 229.1.1.1. Receivers for that content will inform the network that they are interested in receiving data packets sent to the group 229.1.1.1. The receiver "joins" 229.1.1.1. The Multicast address ranges from 224.0.0.0 to 239.255.255.255 or equivalently, 224.0.0.0/4.

"Multicast video port" Set a port for multicast video, please choose between 1024 and 65534.

"Multicast RTP video port" Set a port for multicast RTP video, please choose between 1024 and 65534.

"Multicast audio port" Set a port for multicast audio, please choose between 1024 and 65534.

"Multicast RTP audio port" Set a port for multicast RTP audio, please choose between 1024 and 65534.

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

Enabling UPnP port forwarding allows the Network Camera to open a **secondary HTTP port** on the router, not the HTTP port, meaning that you have to add the secondary HTTP port number behind the Network Camera's public address in order to access the Network Camera from the Internet. For example, when the HTTP port is set to 80 and the secondary HTTP port is set to 8080, refer to the list below for the Network Camera's IP address.

From the Internet	In a local area network
<b>http://203.67.124.123:8080</b>	<b>http://192.168.4.160 or http://192.168.4.160:8080</b>

**Enable UPnP Port Forwarding:** Enables the camera to add the port forwarding entry into the router 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:** Choose either **Basic** where the password is not encrypted, or **Digest** where the password is encrypted during the transmission to the web server.

**Basic authentication:** When selected, the password is sent in plain text format; there can be potential risks of being intercepted.

**Digest authentication:** When selected, user credentials are encrypted in MD5 algorithm and thus provide better protection against unauthorized accesses.

**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 stream1:** The default name is video.mjpg.

**Access name for stream2:** The default name is video2.mjpg.

Access name for stream 1 / Access name for stream 2 : The access name is used to differentiate the streaming source. When using Mozilla Firefox or Netscape to access the Network Camera, and the video mode is set to JPEG, users will receive continuous JPEG pictures. This technology, known as "server push", allows the Network Camera to feed live pictures to Mozilla Firefox and Netscape.

Use **http://<ip address>:<http port>/<access name for stream1 or stream2>** to make connection.

For example, when the access name for stream 1 is set to video.mjpg:

- 1 : Launch Mozilla Firefox or Netscape.
- 2 : Type the URL command in the address field. Press Enter.
- 3 : The JPEG images will be displayed in your web browser.

**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 stream1:** The default name is live.sdp.

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

The accessibility of the RTSP streaming for the three authentication modes are listed in the following table.

	Quick Time player	Real Player	VLC media player	mpegable Player	pvPlayer
Disable	O	O	O	O	O
Basic	O	O	X	X	X
Digest	O	X	X	X	X

O indicates that the authentication mode is supported by the RTSP player.

X indicates that the authentication mode is NOT supported by the RTSP player.

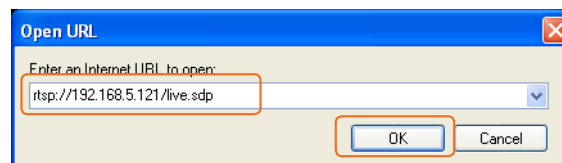
**Access name for stream 1 / Access name for stream 2** : The access name is used to differentiate the streaming source. When using a RTSP player to access the Network Camera, and the video mode is set to MPEG-4, use the following RTSP URL command to request a transmission of streaming data.

rtsp://<ip address>:<rtsp port>/<access name for stream1 or stream2>

For example, when the access name for stream 1 is set to live.sdp:

- 1 : Launch a RTSP player.
- 2 : Choose File > Open URL. This opens the URL dialog box.
- 3 : Type the URL command in the text box.

For example:



- 4 : The live video will be displayed in your player.



**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, plus one repetitively*

**RTP port for video:** Default port number is 5556.

**RTCP port for video:** Default port number is 5557.

**Multicast group address:** 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.

An IP Multicast group address is used to send and receive content. Sources use this group address as the destination 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.

**Multicast video port:** 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

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

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

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

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

Unicast video transmission delivers a stream through point-to-point transmission; multicast, on the other hand, sends a stream to the multicast group address and allows multiple clients to acquire the stream by requesting a copy from the Multicast group address.

The five ports can be changed between 1025 and 65535. The multicast RTP port must be an even number and the multicast RTCP port is multicast RTP port number plus one, and thus always be odd. When the multicast RTP port changes, the multicast RTCP port will change accordingly.

# 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.

Product Page: DCS-6110 Firmware Version: 1.00

**D-Link**

DCS 6110 // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

Wizard  
Network Setup  
Dynamic DNS  
Image Setup  
Video  
Motion Detection  
Time and Date  
Event Setup  
Access List  
DI and DO  
Logout

**DDNS**

The Dynamic DNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (http://www.whateveryournameis.com) with your dynamically assigned IP address. Most broadband Internet Service Providers assign dynamic (changing) IP addresses. Using a DDNS service provider, your friends can enter your host name to connect to your game server no matter what your IP address is.

Sign up for D-Link's Free DDNS service at [www.DLinkDDNS.com](http://www.DLinkDDNS.com).

Save Settings Don't Save Settings

**DDNS SETTING**

☒ Enable DDNS

Server name [www.dlinkddns.com\(Free\)](http://www.dlinkddns.com(Free))

Host name default

User name

Password

Confirm password

Status Disconnect

Save Settings Don't Save Settings

**Helpful Hints..**

Dynamic DNS is useful if you have a DSL or Cable service provider that changes your modem IP address periodically. This will allow you to assign a website domain name to your camera instead of connecting through an IP address.

# 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 frequency:** You may need to choose 50 or 60 Hz 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.

**Overlay title and time stamp on video:** Select to add a date and time stamp directly on the video.

Product Page: DCS-6110 Firmware Version: 1.00

**D-Link**

DCS 6110 // **LIVE VIDEO** **SETUP** MAINTENANCE STATUS HELP

Wizard  
Network Setup  
Dynamic DNS  
Image Setup  
Video  
Motion Detection  
Time and Date  
Event Setup  
Access List  
DI and DO  
Logout

**IMAGE SETUP**

Note: If parameters are changed without saving, they will be effective until the next system power up.

Save Settings Don't Save Settings

**LIVE VIDEO**

DCS-6110(TCP-V) 2008/04/07 14:11:34

**IMAGE SETTINGS**

Color Color  
Power line frequency 60 Hz  
Video orientation ☐ Flip ☐ Mirror  
White balance Auto  
Brightness +0  
Overlay title and time stamp on video ☐

Save Settings Don't Save Settings

**Helpful Hints..**

**Flip image:** This will flip the image vertically.

**Power line frequency:** You may need to choose 50 or 60 Hz frequency; and nonetheless maintain the system operation at a basic 50 Hz frequency.

**White balance:** Choose either Auto or Fix white balance.

**Mirror:** This will flip the image horizontally in such a way that your left side will be on the left side of the screen and vice versa.

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

**Brightness:** field has eleven levels ranged from -5 to +5.

**Overlay title and time stamp on video:** Print date/time information on left top of video.

**SECURITY**



# 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:** 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 rate:** 1 is the minimum value while 30 is the maximum 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.

Product Page: DCS-6110 Firmware Version: 1.00

## D-Link

DCS 6110 // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

Wizard  
Network Setup  
Dynamic DNS  
Image Setup  
Video  
Motion Detection  
Time and Date  
Event Setup  
Access List  
DI and DO  
Logout

### VIDEO

This section allows you to configure the video of your camera. You can configure different settings depending on whether you are viewing content from a PC or a Mobile Phone / PDA.

Save Settings Don't Save Settings

#### VIDEO QUALITY SETTINGS FOR STREAM1

Mode: MPEG-4  
Frame size: 640x480  
Maximum frame rate: 30 fps  
Video quality:  
☒ Constant bit rate: 512 kbps  
☒ Fixed quality: Good

#### VIDEO QUALITY SETTINGS FOR STREAM2

Mode: MPEG-4  
Frame size: 640x480  
Maximum frame rate: 5 fps  
Video quality:  
☒ Constant bit rate: 40 Kbps  
☒ Fixed quality: Good

Save Settings Don't Save Settings

SECURITY

**Helpful Hints..**

Higher frame size, frame rate and bit rate gives better video quality. At the same time, it requires more network bandwidth.

For best viewing results on a mobile phone, we suggest setting the Frame Rate to 5fps and the Bit Rate to 20 kbps.

**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:** Three options exist for the sizes of the video display. It is recommended using 176x144 for mobile viewing and 640x480 for computer 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.

# 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 detection:** Check this option to turn on the motion 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.

Product Page: DCS-6110 Firmware Version: 1.00

## D-Link

DCS 6110 //	LIVE VIDEO	SETUP	MAINTENANCE	STATUS	HELP
Wizard Network Setup Dynamic DNS Image Setup Video <b>Motion Detection</b> Time and Date Event Setup Access List DI and DO Logout	<b>MOTION DETECTION</b> In order to use motion detection you must first check the Enable Motion Detection checkbox. A maximum of 3 windows can be created each with their own separate Sensitivity ranges.				<b>Helpful Hints..</b> <b>Sensitivity</b> - Sets the sensitivity for motion detection. Red bars on the Sensitivity Bar indicate the level of sensitivity for motion detection. As motion is detected the level will rise depending on the frequency of the movement. <b>Percentage</b> - Adjusting the percentage allows you to set a requirement on how much of the motion window must be filled by movement. Example: If you set this to 50%, then the selected window must be half filled by a moving object before it triggers motion detection.
	<b>MOTION SETTINGS</b> <input type="checkbox"/> Enable motion detection <div> <div>DCS-6110(TCP-V) 2008/04/07 14:25:49</div> <div>  <div>           Window Name: <input type="text"/>            Sensitivity: <input type="range"/> 0%            Percentage: <input type="range"/> 0%  <div> <input type="button" value="New"/> <input type="button" value="Save"/> </div> </div> </div> </div>				

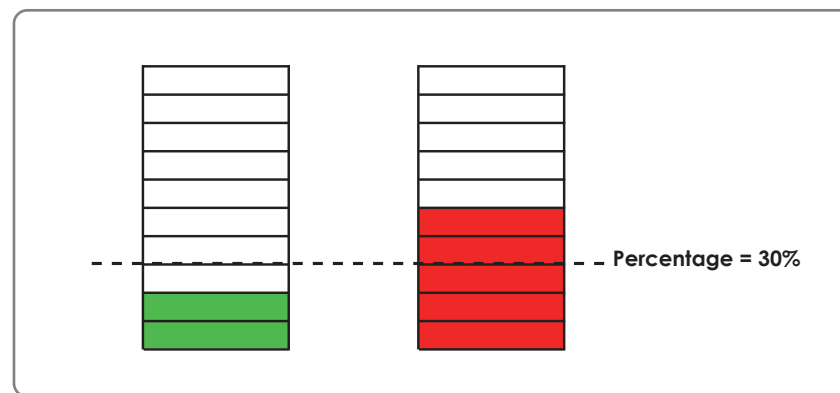
To enable motion detection, follow the steps below:

1. Click **New** to add a new motion detection window.
2. Enter a name in the **Window Name** field.
3. Define the sensitivity to moving objects and the space ratio of all alerted pixels by moving the **Sensitivity** and **Percentage** slide bar.
4. Click **Save** to apply the changes.
5. Select **Enable motion detection** to activate motion detection.

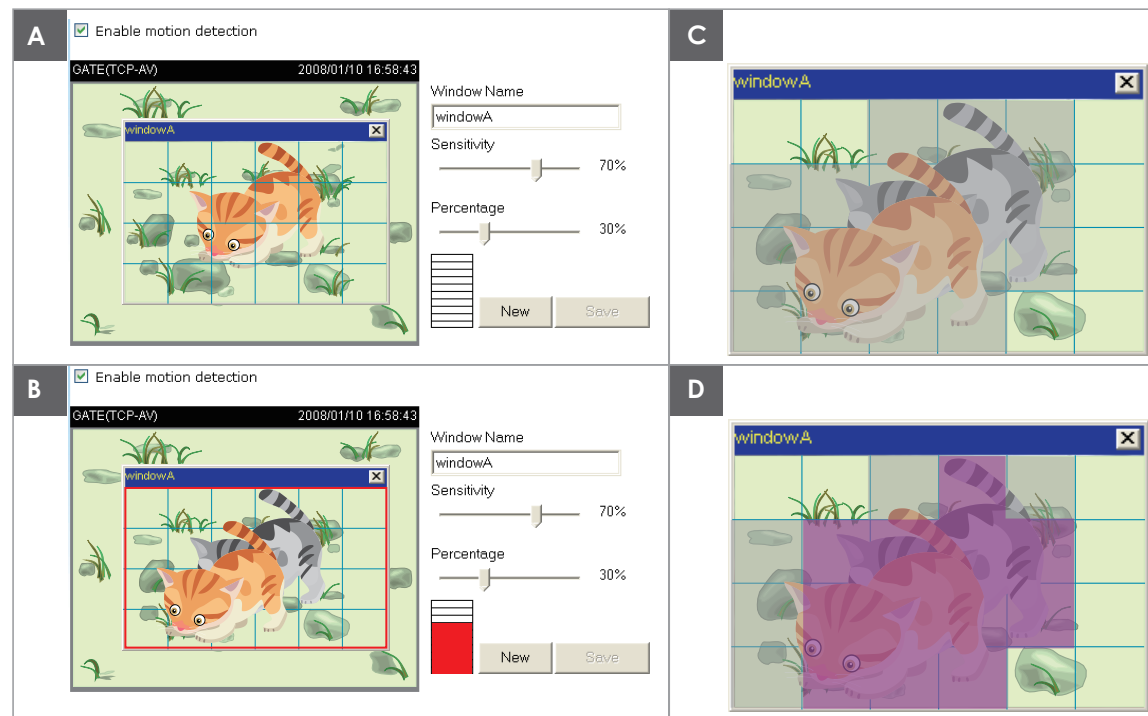
*Note: Drag and drop to resize the window and click X to close the window.*

The Percentage Indicator will rise or fall depending on the image variation. When motions are detected by the Network Camera and are judged to exceed the defined threshold, a red bar rises. Meanwhile, the motion detection window will be outlined in red. Photos or videos can be captured instantly and configured to send to the remote server (Email, FTP) by utilizing this feature as a trigger source.

A green bar indicates that even though motions are detected, the event will not be triggered because the image variations are still falling under the defined threshold.



## How does motion detection work?



There are two parameters for setting the motion detection: Sensitivity and Percentage.

In the illustration above, frame A and frame B are two sequential images. Pixel differences between the two frames are detected and highlighted in gray (frame C), and will be compared with the sensitivity setting. Sensitivity is a value that expresses the sensitivity to moving objects. Higher sensitivity settings are expected to sense a slight movement while smaller sensitivity settings tend to neglect it. When the sensitivity is set to 70%, the Network Camera defines the pixels in the purple areas as “alerted pixels” (frame D). Percentage is a value that expresses the proportion of “alerted pixels” to all pixels in the motion detection window. In this case, 50% of pixels are identified as “alerted pixels”. When the percentage is set to 30%, the motions are judged to exceed the defined threshold; therefore, the motion window will be outlined in red.

For applications that require higher security management, it is suggested to set higher sensitivity settings and smaller percentage values.

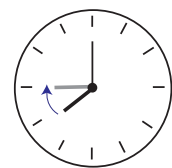
# Time and Date

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

**Current Server Time:** Will be determined by the system.

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

**Enable Daylight Saving:** Select this to enable the daylight saving time (DST). During DST, the system clock moves hour ahead.



*Note: To utilize this feature, ensure to set the time zone of your network camera. Then starting ending time of the DST is displayed upon selecting option.*

**Daylight Saving Dates:** You may configure the daylight saving date time.

**Automatic Time Configuration:** Enable this feature to obtain time configuration automatically from NTP server.

**NTP Server:** Network Time Protocol (NTP) synchronizes the DCS-6110 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 time manually:** This option allows you to set the time and date manually.

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

Product Page: DCS-6110Firmware Version: 1.00

D-Link

DCS 6110

LIVE VIDEO

SETUP

MAINTENANCE

STATUS

HELP

Wizard

Network Setup

Dynamic DNS

Image Setup

Video

Motion Detection

Time and Date

Event Setup

Access List

DI and DO

Logout

TIME AND DATE

The Time Configuration option allows you to configure, update, and maintain the correct time on the internal system clock. From this section you can set the time zone that you are in and set the NTP (Network Time Protocol) Server. Daylight Saving can also be configured to automatically adjust the time when needed.

Save SettingsDon't Save Settings

TIME CONFIGURATION

Current Server Time:07 Apr 2008 17:13:18

Time Zone:GMT-08:00 Las Vegas, San Francisco, Vancouver

Enable Daylight Saving:☐

Daylight Saving Dates:

DST Start

MonthJanWeek1stDay of WeekFriTime12 am

DST End

MonthJanWeek1stDay of WeekFriTime12 am

AUTOMATIC TIME CONFIGURATION

☐ Enable☒ Disable

NTP server:<<Select NTP Server

Update interval:One hour

SET THE DATE AND TIME MANUALLY

Year2008Month04Day07

Hour17Minute13Second51

Copy Your Computer's Time Settings

Save SettingsDon't Save Settings

Helpful Hints..

Good timekeeping is important for accurate logs and scheduled firewall rules.

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

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

Daylight Saving Dates: You may configure the daylight saving date and time.

Automatic Time Configuration: Enable this feature to obtain time configuration automatically from NTP server.

NTP Server: Network Time Protocol (NTP) synchronizes the IP camera 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.

Copy Your Computer's Time Settings: Set the date and time manually: This option allows you to set the time and date manually.

This will synchronize the time information from your PC.

D-Link DCS-6110 User Manual

49

# Event Setup

There are three sections in **Event Setup** page.  
They are:

- Event
- Server
- Media

1. To add a new item - event, server or media click **Add**. A pop-up will appear and update the fields accordingly.
2. To delete the selected item from the pull-down menu of event, server or media click **Delete**.
3. Click on the item name to pop up a window for modifying.

**Note:** You can add up to three events, five servers and five media fields.

Product Page: DCS-6110 Firmware Version: 1.00

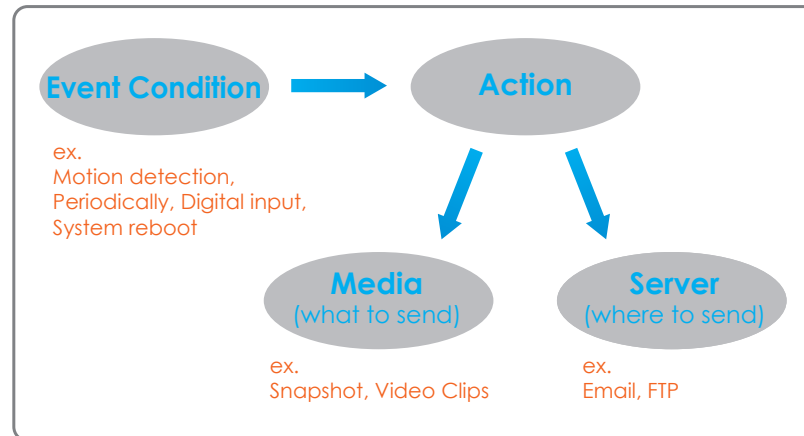
## D-Link

DCS 6110 //	LIVE VIDEO	SETUP	MAINTENANCE	STATUS	HELP																								
Wizard Network Setup Dynamic DNS Image Setup Video Motion Detection Time and Date <b>Event Setup</b> Access List DI and DO Logout	<b>EVENT SETUP</b> There are four sections in Event Setup page. They are event, server, media and recording. Click Add to pop a window to add a new item of event, server, media or recording. Click Delete to delete the selected item from event, server, media or recording. Click on the item name to pop a window to edit it. There can be at most three events and two recording. There can be at most five server and five media configurations.				<b>Helpful Hints..</b> Suggest setting server and media first before setting event. The servers and media which selected in event list are not be able to modify or delete. Please remove them first from the event if you want to delete or modify them. Recommend using different media in different event to make use all media be produced and received correctly. If using the same media in different events and the events trigger almost simultaneously, the servers in the second triggered event will not receive any media; there would be only notifications.  <b>Recording Add/Delete :</b> You can add and delete the recording entry here.  Please make sure you already set the "Server" entry in the "Event Setup".																								
	<b>SERVER</b> <table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> <th>Address/Location</th> </tr> </thead> <tbody> <tr> <td><a href="#">Server1</a></td> <td>email</td> <td><a href="#">NAS</a> ns \\172.17.5.169\</td> </tr> </tbody> </table> [Add] [Server1] [Delete]				Name	Type	Address/Location	<a href="#">Server1</a>	email	<a href="#">NAS</a> ns \\172.17.5.169\																			
Name	Type	Address/Location																											
<a href="#">Server1</a>	email	<a href="#">NAS</a> ns \\172.17.5.169\																											
	<b>MEDIA</b> Media freespace: 7200KB <table border="1"> <thead> <tr> <th>Name</th> <th>Type</th> </tr> </thead> <tbody> <tr> <td><a href="#">Snapshot</a></td> <td>snapshot</td> </tr> </tbody> </table> [Add] [Snapshot] [Delete]				Name	Type	<a href="#">Snapshot</a>	snapshot																					
Name	Type																												
<a href="#">Snapshot</a>	snapshot																												
	<b>EVENT</b> <table border="1"> <thead> <tr> <th>Name</th> <th>Status</th> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> <th>Time</th> <th>Trigger</th> </tr> </thead> <tbody> <tr> <td><a href="#">Motion Detection</a></td> <td>ON</td> <td>V</td> <td>V</td> <td>V</td> <td>V</td> <td>V</td> <td>V</td> <td>V</td> <td>00:00~24:00</td> <td>motion</td> </tr> </tbody> </table> [Add] [Motion Detection] [Delete]				Name	Status	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Time	Trigger	<a href="#">Motion Detection</a>	ON	V	V	V	V	V	V	V	00:00~24:00	motion			
Name	Status	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Time	Trigger																			
<a href="#">Motion Detection</a>	ON	V	V	V	V	V	V	V	00:00~24:00	motion																			
	<b>RECORDING</b> <table border="1"> <thead> <tr> <th>Name</th> <th>Status</th> <th>Sun</th> <th>Mon</th> <th>Tue</th> <th>Wed</th> <th>Thu</th> <th>Fri</th> <th>Sat</th> <th>Time</th> <th>Source</th> <th>Destination</th> </tr> </thead> <tbody> <tr> <td><a href="#">Test</a></td> <td>ON</td> <td>V</td> <td>V</td> <td>V</td> <td>V</td> <td>V</td> <td>V</td> <td>V</td> <td>00:00~24:00</td> <td>stream1</td> <td><a href="#">NAS</a></td> </tr> </tbody> </table> [Add] [Test] [Delete]				Name	Status	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Time	Source	Destination	<a href="#">Test</a>	ON	V	V	V	V	V	V	V	00:00~24:00	stream1	<a href="#">NAS</a>	
Name	Status	Sun	Mon	Tue	Wed	Thu	Fri	Sat	Time	Source	Destination																		
<a href="#">Test</a>	ON	V	V	V	V	V	V	V	00:00~24:00	stream1	<a href="#">NAS</a>																		

SECURITY

## Application

A typical application is that when a motion is detected, the DCS-6110 Network Camera sends buffered images to a FTP server or via e-mail as notifications. For example, as seen in the illustration below, an event can be triggered by many sources, such as motion detection or external digital input devices. When an event is triggered, you can specify what kind of action will be performed. You can configure the Network Camera to send snapshots or videos to your email address or FTP site.



To start plotting an event, it is suggested to configure server and media columns first so that the Network Camera will know what action shall be performed when a trigger is activated.

## 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.

Product Page: DCS-6110 Firmware Version: 1.00

**D-Link**

DCS 6110 // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

Wizard  
Network Setup  
Dynamic DNS  
Image Setup  
Video  
Motion Detection  
Time and Date  
Event Setup  
Access List  
DI and DO  
Logout

### SERVER

You can set at most 5 different servers here for different event.

Test Save Settings Don't Save Settings

#### SERVER TYPE

Server name: NAS

☒ Email

Sender email address: test@abc.com  
Recipient E-mail Address: test2@abc.com  
Server address: mail.abc.com  
Server port: 25  
User name: Test  
Password: \*\*\*\*

☐ FTP

Server address:   
Server port: 21  
User name:   
Password:   
Remote folder name:   
☒ Passive mode

☐ HTTP

URL: http://  
User name:   
Password:

☐ Network storage

Network storage location:   
(for example: \\my\_nas\disk\folder)  
Workgroup:   
User name:   
Password:   
Primary WINS server:   
Secondary WINS server:

Test Save Settings Don't Save Settings

**SECURITY**

**Helpful Hints..**

**"Server name"** The unique name for server.

There are four kinds of servers supported. They are email server, FTP server, HTTP server and network storage.

**Email server:**  
**"Sender email address"** The email address of the sender.  
**"Recipient email address"** The email address of the recipient.

**FTP server:**  
**"Remote folder name"** Granted folder on the external FTP server. The string must conform to that of the external FTP server. Some FTP servers cannot accept preceding slash symbol before the path without virtual path mapping. Refer to the instructions for the external FTP server for details. The folder privilege must be open for upload.  
**"Passive Mode"** Check it to enable passive mode in transmission.

**HTTP server:**  
**"URL"** The URL to upload the media.

**Network storage:** Only one network storage is supported.

**"Network storage location"** The path to upload the media.

**"Workgroup"** The workgroup for network storage.



## 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. Refer page 48 for more information.

**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. Refer page 48 for more information.

**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. Refer page 48 for more information.

**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. Refer page 48 for more information.

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

Product Page: DCS-6110 Firmware Version: 1.00

**D-Link**

DCS 6110 // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

**MEDIA**

You can set at most 5 different media here for different event.

Save Settings Don't Save Settings

**MEDIA TYPE**

Media name:

☒ Snapshot

Source:

Send  pre-event image(s) [0~7]

Send  post-event image(s) [0~7]

File Name Prefix:

☐ Add date and time suffix to file name

☐ Video Clip

Source:

Pre-event recording:  seconds [0~9]

Maximum duration:  seconds [1~10]

Maximum file size:  kbytes [50~600]

File Name Prefix:

☐ System log

Save Settings Don't Save Settings

**Helpful Hints..**

"Media name" The unique name for media. There are three kinds of media. They are snapshot, video clip and system log.

**Snapshot:**

"Source" The source of stream, stream1 or stream2.

"Send Pre-event images" The number of pre-event images.

"Send Post-event images" 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:**

"Source" The source of stream, stream1 or stream2.

"Pre-event recording" The interval of pre-event recording in seconds. There are two limitations for video clip file.

"Maximum duration" The maximal recording file duration in seconds.

"Maximum file size" The maximal file size would be generated.

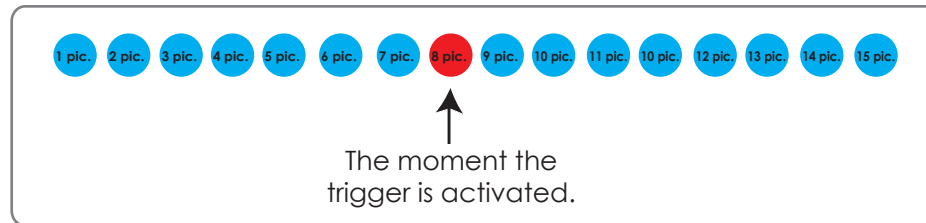
"File name prefix" The prefix name will be added on the file name of the video clip.

### Send post-event image (s) [0~7]

Specify to capture the number of images after a trigger is activated. A maximum of seven images can be generated.

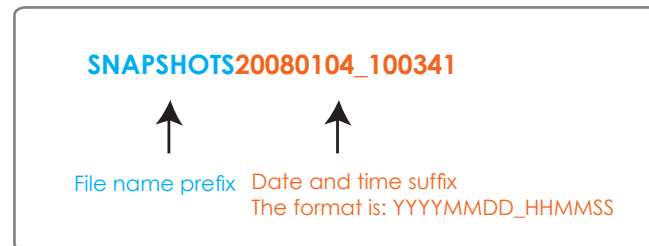
For example:

If both the Send pre-event images and Send post-event images are set to seven, a total of 15 images are generated after a trigger is activated.



### Add date and time suffix to file name

Select this option to add date and time to the file name suffix.

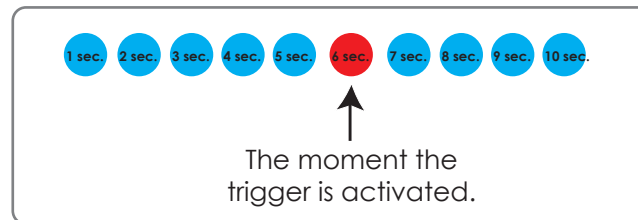


### Maximum duration

Specify the maximal recording duration in seconds. You can set up to ten seconds.

#### For example:

If the Pre-event recording is set to five seconds and the Maximum duration is set to ten seconds, the Network Camera continues to record for another four seconds after a trigger is activated.



### File name prefix

Enter the text that will be added at the beginning of the file name.



## 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 detection:** Motion is detected during live video monitoring. Select 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:** Select **Always** or enter the time interval.

**Trigger D/O:** 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.

Product Page: DCS-6110 Firmware Version: 1.00

### D-Link

DCS 6110 //	LIVE VIDEO	SETUP	MAINTENANCE	STATUS	HELP
Wizard Network Setup Dynamic DNS Image Setup Video Motion Detection Time and Date <b>Event Setup</b> Access List DI and DO Logout	<div> <b>EVENT</b>            You can set at most 3 events like motion detection or digital input trigger here and arrange the detection schedule at the same time.  <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/> </div> <div> <b>EVENT</b>            Event name: <input type="text" value="Motion Detection"/>  <input checked="" type="checkbox"/> Enable this event            Priority: <input type="text" value="normal"/>            Delay for <input type="text" value="10"/> seconds before detecting next event. [For motion detection and digital input]         </div> <div> <b>TRIGGER</b>  <input checked="" type="radio"/> Video motion detection            Detect motion in <input checked="" type="checkbox"/> Test            Note: Please configure <a href="#">Motion Detection</a> first  <input type="radio"/> Periodic            Trigger every <input type="text" value="1"/> minutes  <input type="radio"/> Digital input  <input type="radio"/> System boot         </div> <div> <b>EVENT SCHEDULE</b>  <input checked="" type="checkbox"/> Sun <input checked="" type="checkbox"/> Mon <input checked="" type="checkbox"/> Tue <input checked="" type="checkbox"/> Wed <input checked="" type="checkbox"/> Thu <input checked="" type="checkbox"/> Fri <input checked="" type="checkbox"/> Sat            Time  <input checked="" type="radio"/> Always  <input type="radio"/> From <input type="text" value="00"/> <input type="text" value="00"/> to <input type="text" value="24"/> <input type="text" value="00"/> </div> <div> <b>ACTION</b>  <input checked="" type="checkbox"/> Trigger D/O for <input type="text" value="1"/> seconds  <input checked="" type="checkbox"/> Server1            Attached media: <input type="text" value="Snapshot"/>  <input checked="" type="checkbox"/> NAS            Attached media: <input type="text" value="Snapshot"/>  <input type="button" value="Save Settings"/> <input type="button" value="Don't Save Settings"/> </div>				<b>Helpful Hints..</b> <b>Priority:</b> The event with higher priority will be executed first. <b>Delay second(s) before detecting next event:</b> The delay to check next event. It is used in motion detection and digital input trigger type. There are four kinds of trigger supported. <b>Video motion detection:</b> Select the windows which need to be monitored. <b>Periodic:</b> The event is triggered in specified intervals. The unit of trigger interval is minute. <b>Digital input:</b> The event is triggered when the DI status changed by external device. <b>System boot:</b> The event is triggered when the system boot up. <b>Sun ~ Sat:</b> Select the days of the week to perform the event. <b>Time:</b> show "Always" or input the time interval. The default action are triggering DO and storing media on CF card. If there are servers configured, the user can select them from "Server name", too. <b>Trigger DO:</b> Check it to trigger digital output for specific seconds when event is triggered.

SECURITY

## Add Recording

Here you can configure and schedule the recording settings.

**Recording entry name:** The unique name of the entry.

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

**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 recording size:** Please input a HDD memory volume between 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 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 recording:** File size for each recording file. You may input the value in the range of 200-6000.

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

Product Page: DCS-6110 Firmware Version: 1.00

**D-Link**

DCS 6110 // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

**Recording**

You can setup schedule recording to network storage with your specify week day and time period.

Save Settings Don't Save Settings

**Recording**

Recording entry name: Test

☒ Enable this recording

Priority: normal

Source: Stream1

**Recording Schedule**

☒ Sun ☒ Mon ☒ Tue ☒ Wed ☒ Thu ☒ Fri ☒ Sat

Time

☒ Always

☐ From 00:00 to 24:00

**Recording Settings**

Destination: NAS

Total cycling recording size: 1000 Kbytes [1000~200000000]

Size of each file for recording: 200 Kbytes [200~6000]

File Name Prefix:

Save Settings Don't Save Settings

**Helpful Hints..**

**Recording :** Enable this option if you want to upload the recording to a shared folder on the network.

**Recording schedule :** Select the day(s) according to when you want the camera to make a video clip.

**Always :** This enables the camera to make video clips continuously.

**From :** The time range specified for the video clip.

**Destination :** Please input the network path of your network storage, it will like "192.168.1.100/IPCamRecord". If the network storage need authentication, please enter your user name and password here.

**Total cycling recording size :** Please input a HDD memory volume for recording space. The recording data will replace the oldest one when total recording size exceeds this value. 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.

# 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. Click **Add** to save the changes made.

***Note:** A total of ten lists can be configured for both columns.*

**End IP address:** The ending IP Address of the devices (such as a computer) that have permission to access the video of the camera.

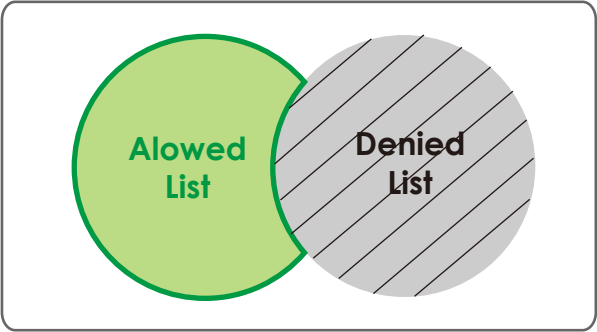
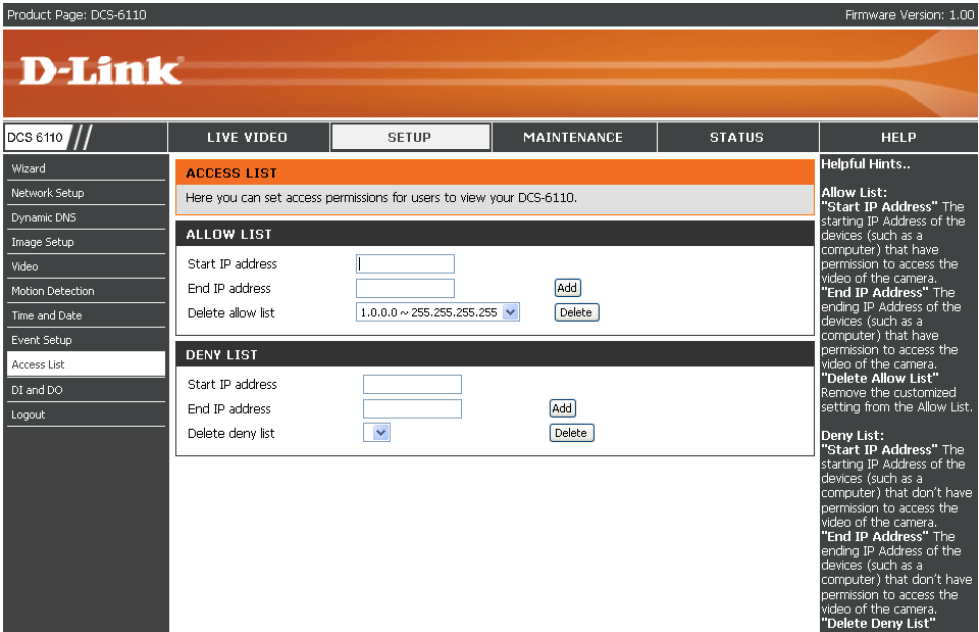
**Delete allow list:** Remove the customized setting from the *Allow List*.

**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*.

**For example:**

When the range of allowed list is set from 1.1.1.0 to 192.255.255.255 and the range of denied list is set from 1.1.1.0 to 170.255.255.255, Only users' IP located between 171.0.0.0 and 192.25.25.25 can access the Network Camera.



## 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 network camera.

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

**Digital input trigger condition:** Please select from “**High**” or “**Low**” for digital input 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.

Product Page: DCS-6110 Firmware Version: 1.00

**D-Link**

DCS 6110 //

LIVE VIDEO SETUP MAINTENANCE STATUS HELP

**DI AND DO**

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

The digital input is used for connecting external alarm devices and once triggered images will be taken and e-mailed.

Save Settings Don't Save Settings

**DI AND DO**

Digital input trigger condition: **High**, current status is normal

Digital output: normal status is **Open**, current status is normal

**Helpful Hints..**

The IP camera provides a general I/O terminal block with one digital input and one relay switch for device control. Pin 3 and pin 4 can be connected to an external sensor and the state of voltage will be monitored from the initial state 'LOW'. The relay switch of pin 1 and pin 2 can be used to turn on or off the external device. Please refer to manual for detail connection diagram.

# 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 setup:** Modify a password for the administrator's 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-6110** (By default).

Product Page: DCS-6110 Firmware Version: 1.00

## D-Link

DCS 6110 //	LIVE VIDEO	SETUP	MAINTENANCE	STATUS	HELP
Device Management Backup and Restore Firmware Update Logout	<h3>DEVICE MANAGEMENT</h3> <p>You can change to camera's administrative password as well as adding more user accounts for accessing the camera.</p> <div> <h4>ADMIN PASSWORD SETUP</h4> <p>Password: <input type="password"/></p> <p>Retype password: <input type="password"/></p> <p><input type="button" value="Save"/></p> </div> <div> <h4>ADD USER ACCOUNT</h4> <p>User name: <input type="text" value="xyz"/></p> <p>Password: <input type="password" value="...."/></p> <p>Confirm password: <input type="password" value="...."/></p> <p>Privilege: <input checked="" type="radio"/> Administrator  <input type="radio"/> Normal User  <input type="radio"/> Guest</p> <p><input type="button" value="Add"/></p> </div> <div> <h4>MANAGE USER</h4> <p>User name: <input type="text" value="abc"/></p> <p>User password: <input type="password" value="...."/></p> <p>Authentication: <input checked="" type="radio"/> Administrator  <input type="radio"/> Normal User  <input type="radio"/> Guest</p> <p><input type="button" value="Modify"/> <input type="button" value="Delete"/></p> </div> <div> <h4>SERVER SETTING</h4> <p>Camera Name: <input type="text" value="DCS-6110"/></p> <p><input type="button" value="Save"/></p> </div>				<h3>Helpful Hints..</h3> <p>For security reasons, it is recommended that you change the Login Name and Password for the Administrator accounts. Be sure to write down the new Login Names and Passwords to avoid having to reset the camera in the event that they are forgotten.</p> <p>Add user account: Add new user account.</p> <p>Username: The username for the new account.</p> <p>Password: The password for the new account.</p> <p>Privilege: The access right for the new user.</p> <p>Administrator can configure all the setup.</p> <p>Operator can use PTZ function and set preset position but can not enter setup page.</p> <p>Viewer can only view the video and audio.</p> <p>Manage user: Managing the accounts for the existing users.</p> <p>Authentication: The access right for the existing users.</p> <p>Camera name: You can access this device by using the name in your web-browser. For example: By default you can enter http://DCS_6110.</p>

**SECURITY**



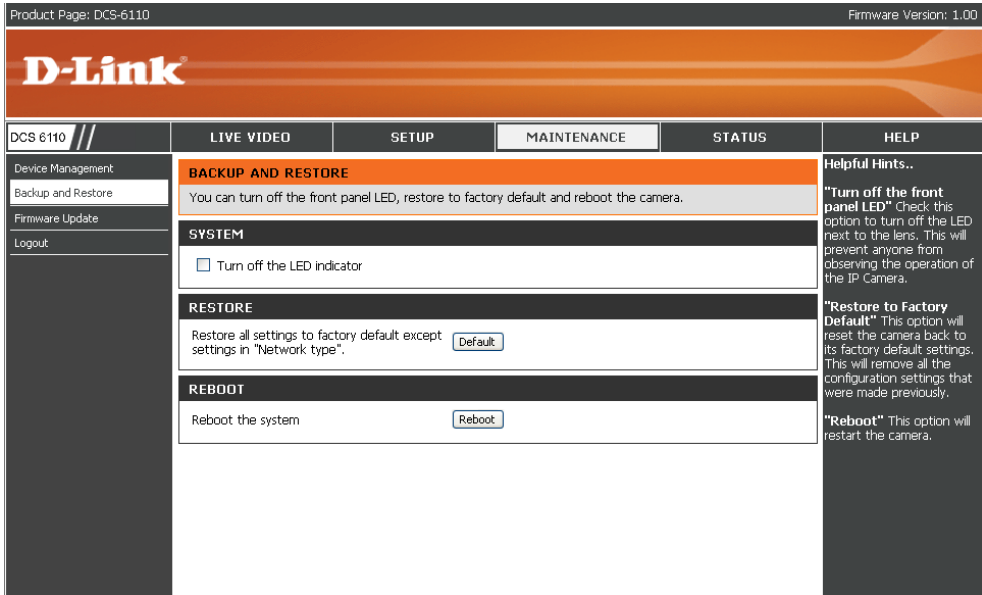
# Backup and Restore

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

**Turn off the LED indicator:** Check this option to turn off the LED next to the lens. This will prevent anyone from observing the operation of the network camera.

**Restore:** Click the **Restore** button to reset the camera back to its factory default settings. This will remove all the configuration settings that were made previously.

**Reboot:** Click the **Reboot** button to 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-6110, 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 version:** It will be automatically determined and displayed by the system.

**Current firmware date:** It will be automatically determined and displayed 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.

Product Page: DCS-6110 Firmware Version: 1.00

---

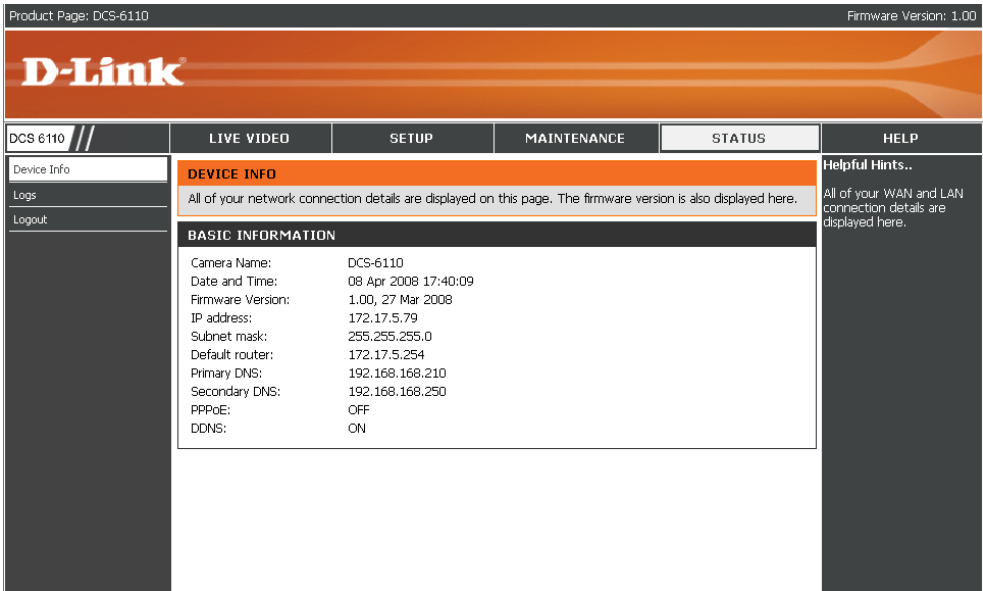
**D-Link**

DCS 6110	LIVE VIDEO	SETUP	MAINTENANCE	STATUS	HELP				
Device Management Backup and Restore <b>Firmware Update</b> Logout	<div style="background-color: #f4a460; padding: 5px; border: 1px solid #ccc;"> <b>FIRMWARE UPDATE</b> </div> <p>A new firmware upgrade may be available for your "DCS-6110". It is recommended to keep your "DCS-6110" firmware up-to-date to maintain and improve the functionality and performance of your internet camera. Click here <a href="#">D-Link Support Page</a> to check for the latest firmware version available.</p> <p>To upgrade the firmware on your "DCS-6110", 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. Once you have found and opened the file using the browse button, click the "Upload" button to start the firmware upgrade.</p> <div style="background-color: #f2f2f2; padding: 5px; border: 1px solid #ccc;"> <b>FIRMWARE INFORMATION</b> <table style="width: 100%; border-collapse: collapse;"> <tr> <td style="width: 50%;">Current Firmware Version:</td> <td>1.00</td> </tr> <tr> <td>Current Firmware Date:</td> <td>27 Mar 2008</td> </tr> </table> </div> <div style="background-color: #f2f2f2; padding: 5px; border: 1px solid #ccc;"> <b>FIRMWARE UPGRADE</b> <div style="border: 1px solid #ccc; padding: 5px; margin-top: 5px;">           File Path: <input style="width: 150px;" type="text"/> <input type="button" value="Browse..."/> <div style="text-align: right; margin-top: 5px;"> <input type="button" value="Upload"/> </div> </div> </div>				Current Firmware Version:	1.00	Current Firmware Date:	27 Mar 2008	<b>Helpful Hints..</b> Firmware updates are released periodically to improve the functionality of your IP camera and also to add new features. If you run into a problem with a specific feature of the IP camera, check our support site by clicking on the <a href="#">Link</a> on our support site link and see if an updated firmware is available for your IP camera.
Current Firmware Version:	1.00								
Current Firmware Date:	27 Mar 2008								

# Status

## Device Info

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



# 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.

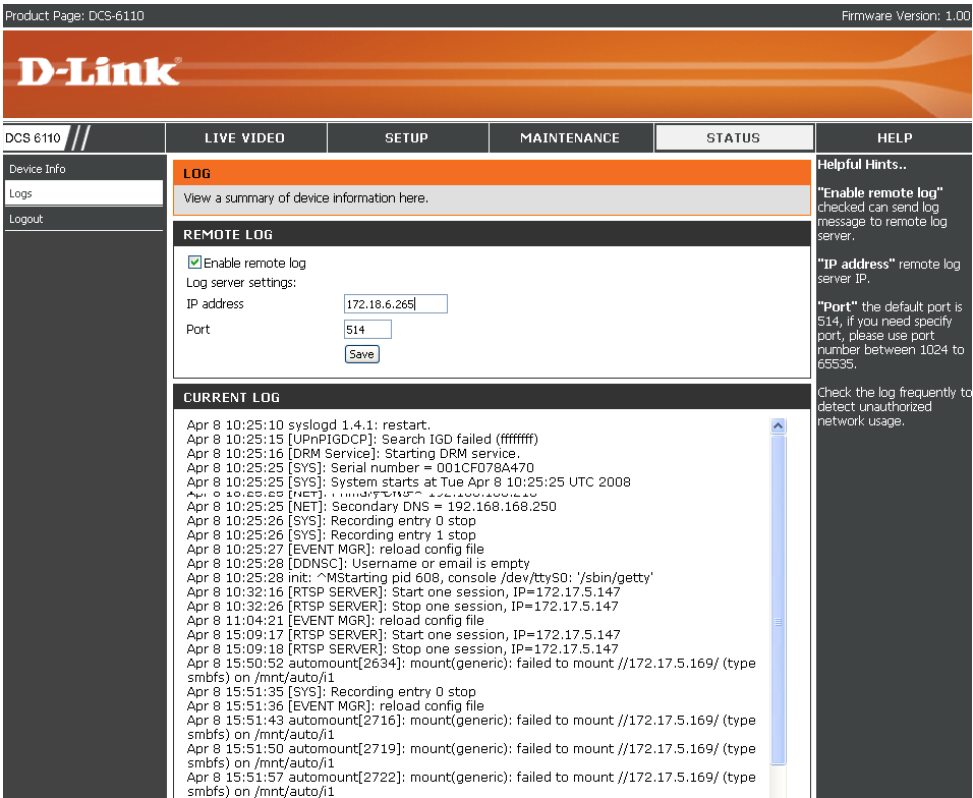
**Log server settings:** Configure the setting for the log server.

**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

Product Page: DCS-6110Firmware Version: 1.00

D-Link

DCS 6110

Menu

Live Video

Setup

Maintenance

Status

Logout

LIVE VIDEO

SETUP

MAINTENANCE

STATUS

HELP

SUPPORT MENU

• Live Video

• Setup

• Maintenance

• Status

LIVE VIDEO

• Camera

• Snapshot

• Client Settings

• Logout

SETUP

• Wizard

• Network Setup

• Dynamic DNS

• Image Setup

• Audio and Video

• Motion Detection

• Time and Date

• Event Setup

• Access List

• DL and DD

MAINTENANCE

• Admin

• System

• Firmware Update

STATUS

• Device Info

• Logs

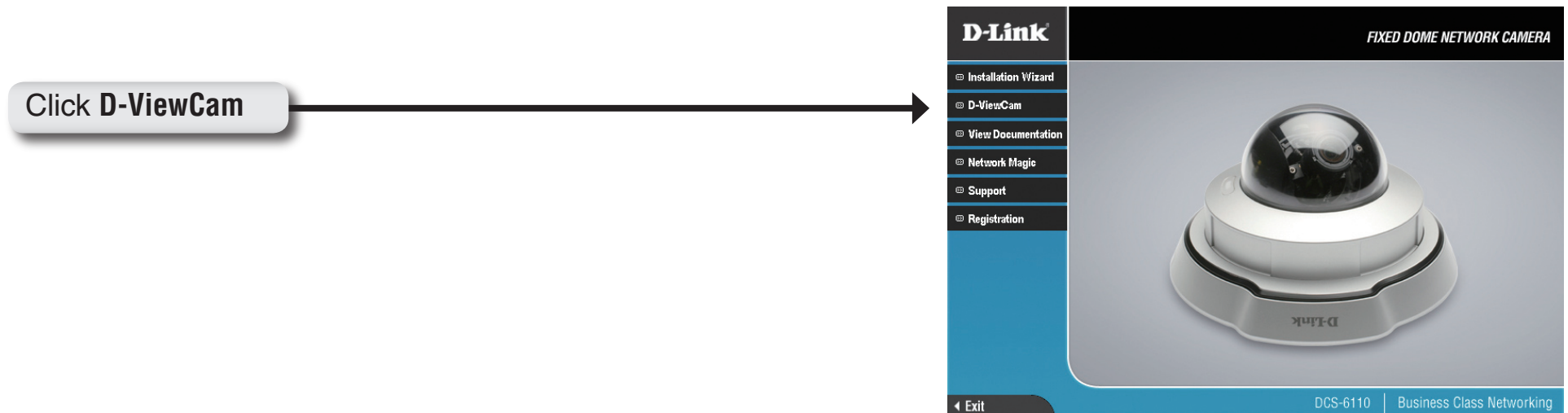
Helpful Hints...

SECURITY

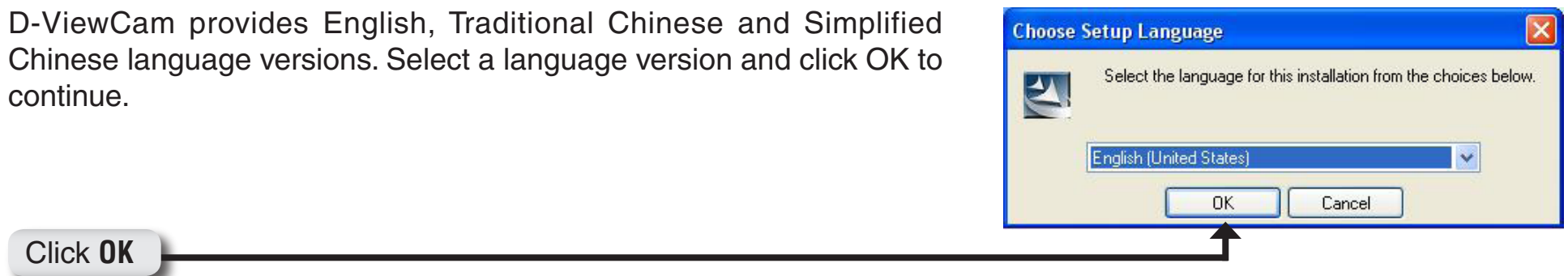
# D-ViewCam Installation

D-ViewCam software is included for the administrator to manage up to 32 D-Link network cameras remotely. The administrator can use the software to configure the advanced 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.

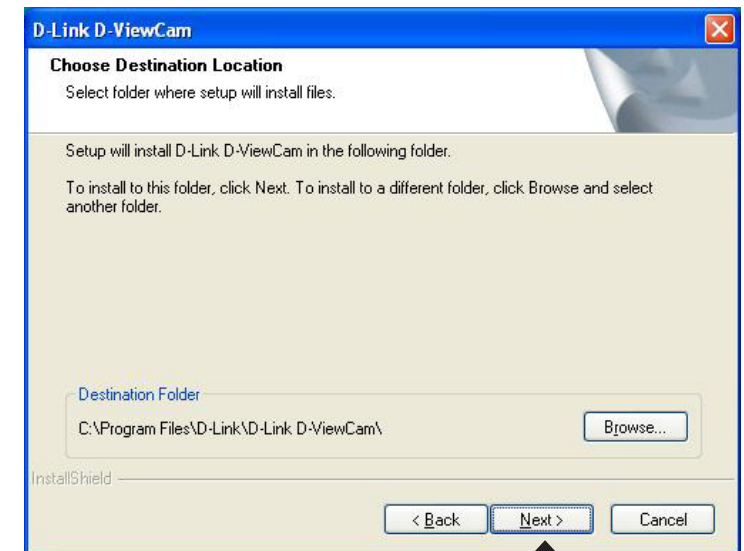


Click **Next** to continue.



Click **Next**

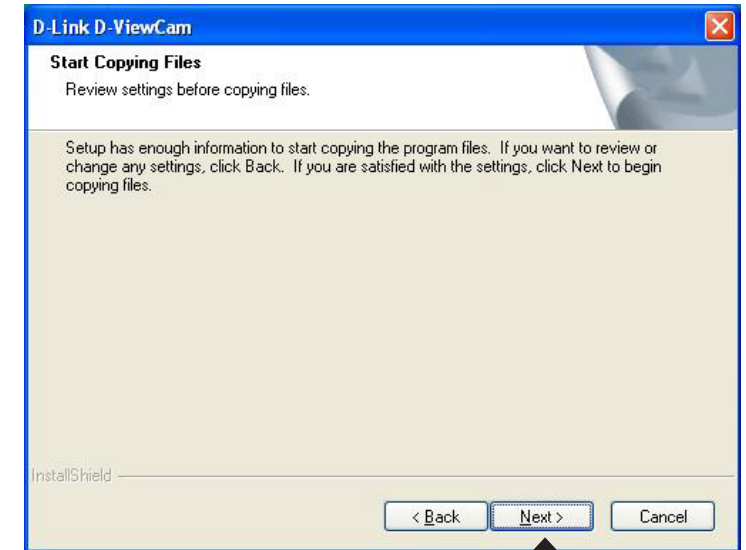
Click **Browse** if you would like to choose a specific folder for the installation, otherwise click **Next** to continue.



Click **Next**

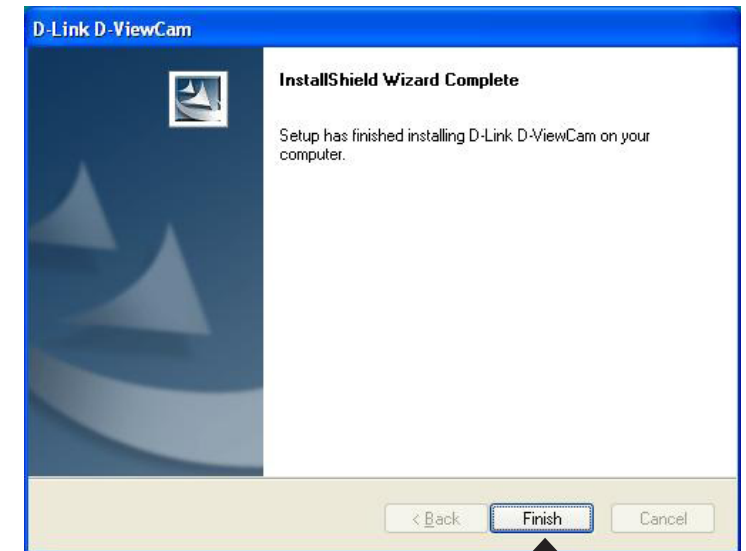
Click **Next** to start the installation.

**Note:** The D-ViewCam installation process may take several minutes to complete.



Click **Next**

Click **Finish** to complete the installation.



Click **Finish**



## Add a Camera

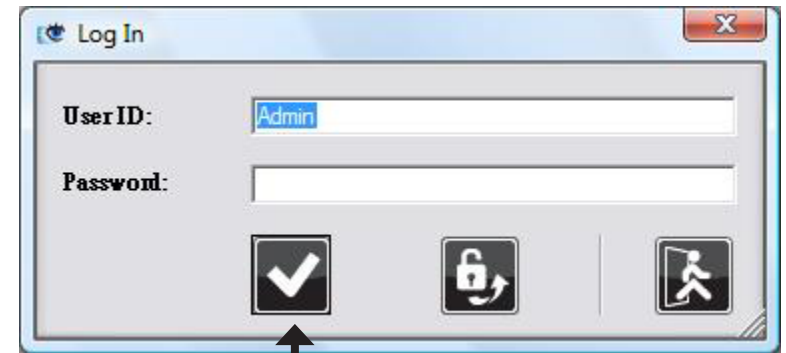
This section will show you how to start and add a camera to the D-ViewCam system.

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 ☒ / 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.

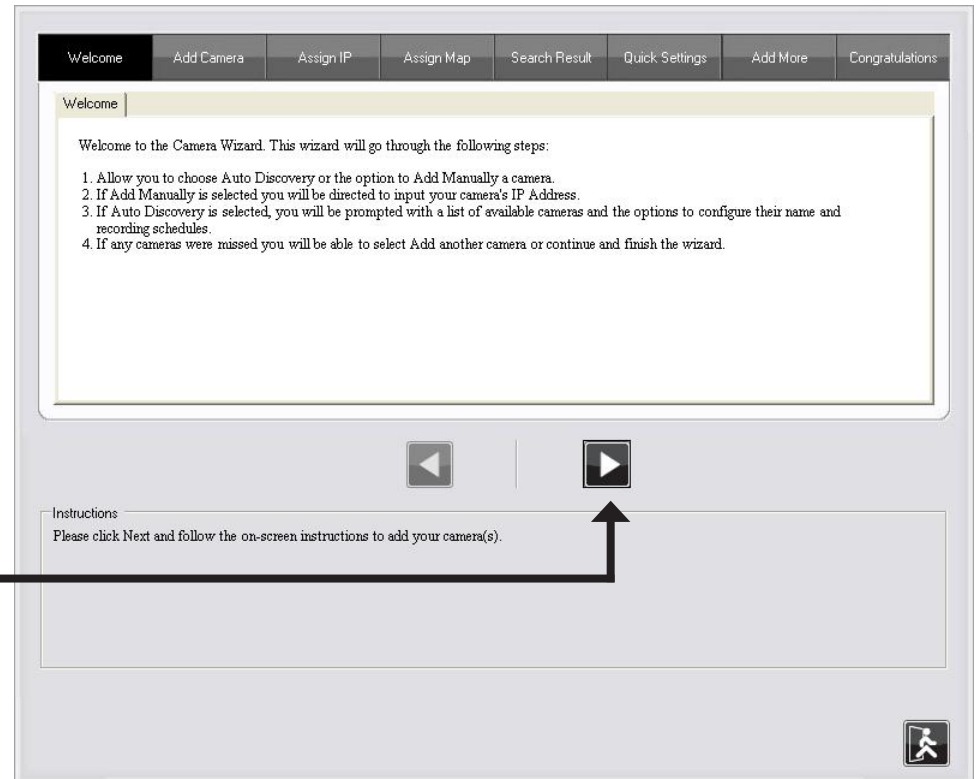


Click **OK**

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.

Click  / **Next** to continue.

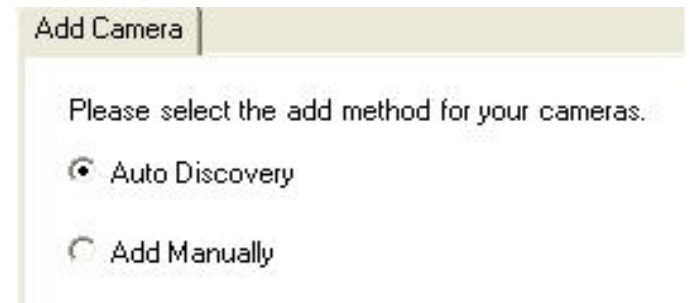


Click **Next**

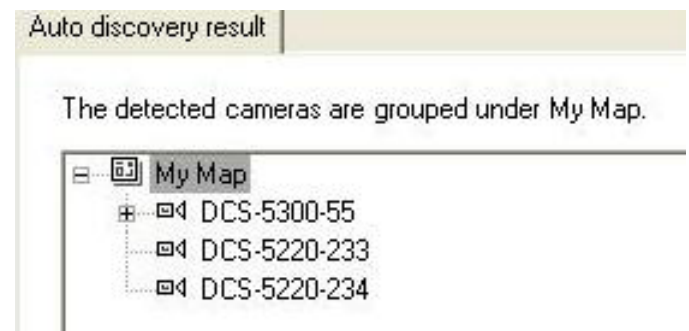
Choose which method to add your camera(s). You can choose **Auto Discovery** to automatically search for your camera(s), or choose **Add Manually** to add your camera(s) via the camera's IP address. Click **Next** to continue.

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.



The 'Add Camera' dialog box has a title bar 'Add Camera'. Below the title bar, it says 'Please select the add method for your cameras.' There are two radio button options: 'Auto Discovery' (which is selected) and 'Add Manually'.



The 'Auto discovery result' dialog box has a title bar 'Auto discovery result'. Below the title bar, it says 'The detected cameras are grouped under My Map.' Below this text is a tree view structure. The root node is 'My Map' (indicated by a folder icon). Under 'My Map', there are three camera nodes, each with a camera icon and a label: 'DCS-5300-55', 'DCS-5220-233', and 'DCS-5220-234'.



The 'Assign IP' dialog box has a title bar 'Assign IP'. Below the title bar, it says 'Camera IP Address:'. Below this text is a text input field for entering the IP address.

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

- **24/7 Continuous Recording:** Continuously records surveillance 24 hours a day, 7 days a week.
- **24/7 Motion Detection Recording:** Continuously monitors, but only records surveillance when motion is detected.
- **Office Hours Only:** Continuously monitors during office hours (8:00AM to 6:00PM), and only records when motion is detected.
- **Non-Office Hours Only:** Continuously monitors during non-office hours (6:00PM to 8:00AM), and only records when motion is detected.

**Note:** Excluding 24/7 Continuous Recording, all other schedule recording modes can only record when motion is detected. Please refer to the user manual for more information.

Click **Next** to continue.

Quick Settings					
The discovered cameras information showed as below:					
Camera Name	Model	Schedule Recording Type	Status	IP Address	MAC Address
DCS-5300-55	DCS-5300	None	Active	10.129.1.55	000D887D6DC4
DCS-5220-233	DCS-5220	None	Active	10.129.1.233	001346DC3BC3
DCS-5220-234	DCS-5220	None	Active	10.129.1.234	001346DC38EB

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 camera

☐ Yes ☒ No

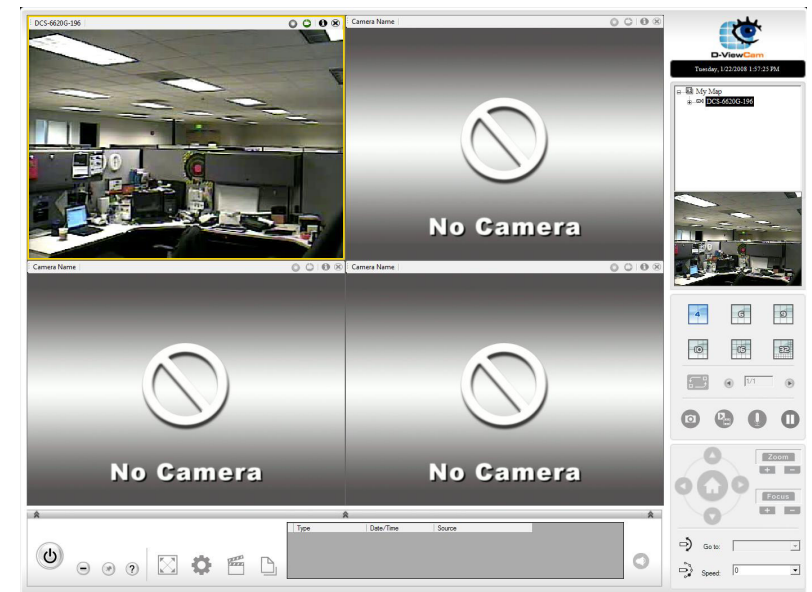
The **Add Camera wizard** is now complete. Click **Close** to access the D-ViewCam's main screen.

Congratulations!

Congratulations, your camera configurations are now complete and ready to use.  
You may now click the Close button to view your camera and configure any additional advanced settings.

## 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-6110. Read the following descriptions if you are having any problems.

**Note:** *The examples below are illustrated in Windows® XP. If you have a different operating system, the screenshots on your computer will look similar to the following examples.*

## Fixed Dome Network Camera Features

### 1. What is a Fixed Dome Network Camera?

The Fixed Dome Network Camera is a stand-alone system connecting directly to an Ethernet or Fast Ethernet network. The Fixed Dome Network 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 Fixed Dome Network 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-6110 simultaneously?

The maximum number of users that can log onto the Fixed Dome Network 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.

There is no limited user when multicast-enabled router is used. This helps to reduce the network transmission load. Note that to utilize this feature; the Network Camera must be configured to enable multicast streaming at the same time. For more information, see RTSP Streaming on page 41.

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

The Fixed Dome Network 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 Fixed Dome Network Camera?**

Yes you can capture still images using the snapshot function.

### **Fixed Dome Network Camera Installation**

#### **1. Can the Network Camera be used outdoors?**

The Fixed Dome Network 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 Fixed Dome Network Camera to a network, what network cabling is required?**

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

#### **3. Can the Fixed Dome Network Camera be setup as a PC-cam on a computer?**

No, the Fixed Dome Network 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 Fixed Dome Network Camera be connected to the network if it consists only of private IP addresses?**

The Fixed Dome Network Camera can be connected to a LAN with private IP addresses.

#### **5. Can the Fixed Dome Network 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-6110 uses port 5002 for streaming audio and port 5003 for streaming video. These ports (or the ports you have specified in the Setup Tab in the Configuration screen) need to be opened on the firewall.

## **6. Why am I unable to access the Fixed Dome Network Camera from a web browser?**

If a router or firewall is used on the network, the correct ports for the DCS-6110 may not be configured on the router or firewall. To correct the problem, you need to determine if the DCS-6110 is behind a router or firewall and if the router or firewall is properly configured for the ports the DCS-6110 is using. Refer to Page 28 for help in opening the correct ports on a router or firewall for use with the DCS-6110. 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 Fixed Dome Network Camera might be faulty.

## **7. Why does the Fixed Dome Network 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 Fixed Dome Network Camera to be accessible outside of your local LAN. Check with the Network Administrator for your network.
- Make sure that your Fixed Dome 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 allows the Fixed Dome Network Camera to be accessed outside of your local LAN.

## **8. I connected the Fixed Dome Network 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 Fixed Dome Network 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. Grainy images occur. How can I solve the problem?**

The video images might be grainy if the Fixed Dome Network 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 Fixed Dome Network Camera image display is incorrect. Through the Setup > 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

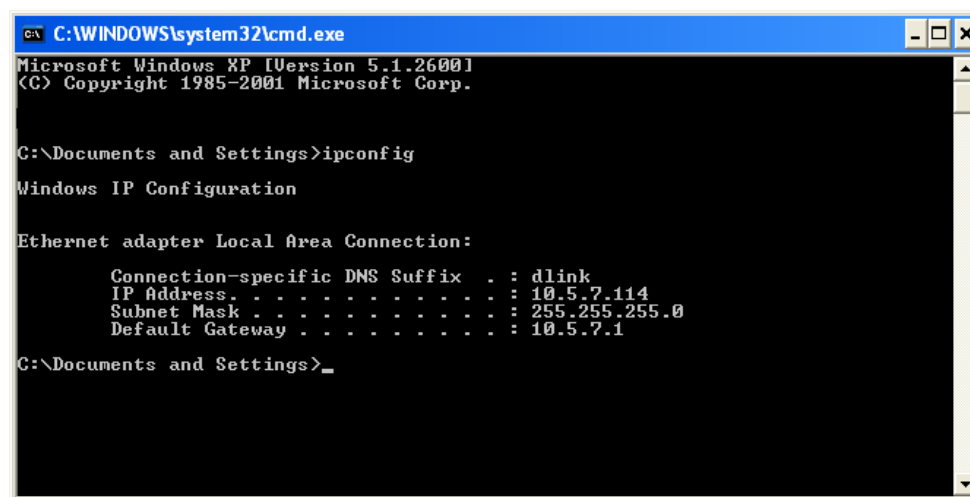
After you install your new D-Link adapter, by default, the TCP/IP settings should be set to obtain an IP address from a DHCP server (i.e. wireless router) automatically. To verify your IP address, please follow the steps below.

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.



```
C:\WINDOWS\system32\cmd.exe
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

C:\Documents and Settings>ipconfig

Windows IP Configuration

Ethernet adapter Local Area Connection:

    Connection-specific DNS Suffix  . : dlink
    IP Address. . . . .               : 10.5.7.114
    Subnet Mask . . . . .             : 255.255.255.0
    Default Gateway . . . . .         : 10.5.7.1

C:\Documents and Settings>
```

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® 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

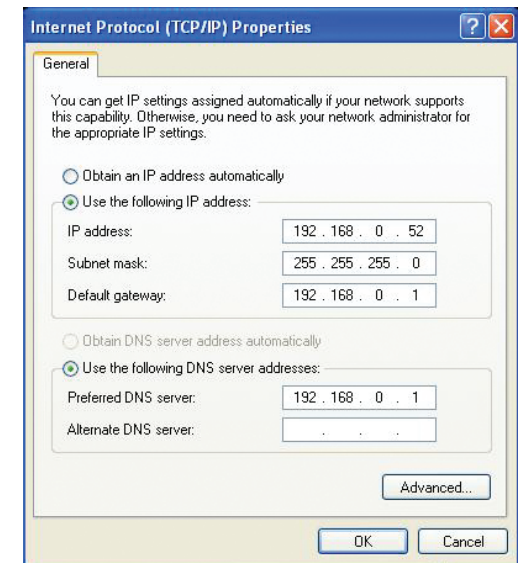
Click **Use the following IP address** and enter an IP address that is on the same subnet as your network or the LAN IP address on your access point.

Example: If the network 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

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



# Reset and Restore

There is a button hidden in the pinhole beside the Ethernet socket. It is used to **reset** the system or **restore** the factory default settings. Sometimes resetting the **DCS-6110** will return the system back to a normal state. If the system still has problems after reset, restore the factory settings and install again:

- RESET:**
1. Lightly insert a paper clip (or a similar sized tool) into the reset hole on the back of the camera, press lightly and then release the button.
  2. The LED on the front of the camera will begin blinking red and green.
  3. When the LED stops the blinking the reset has completed.
- RESTORE:**
1. Insert the paperclip or other tool and press on the button continuously.
  2. Wait for the LED on the front of the camera to blink red and green and hold the button for 30 seconds.
  3. Withdraw the tool after the second cycle of the LED blinking and a factory restore has been completed.



Restoring the factory defaults will result in the loss of any previous settings and will require running the Installation Wizard to return the **DCS-6110** to a normal state.

# External I/O Port

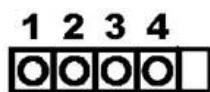
## DI/DO Diagram

Pin 1~4 are used to connect with digital input and digital output devices. Refer to the following illustration for connection method.

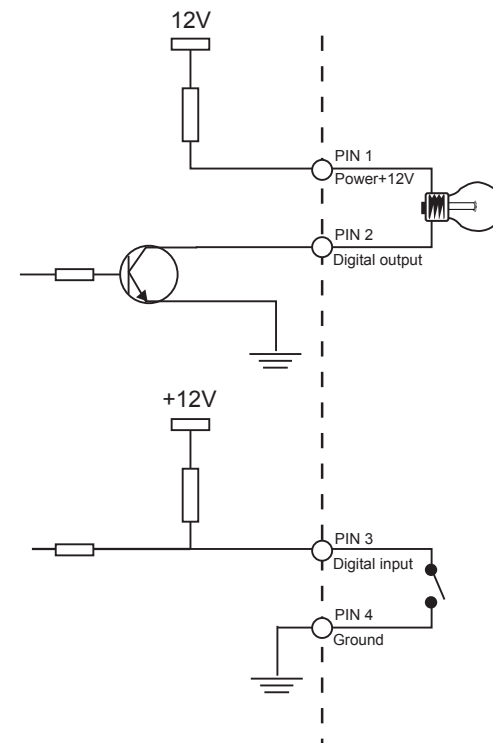
The **DCS-6110** provides a general I/O terminal block with one digital input and one relay switch for device control. The relay switch of pin 1 and pin 2 can be used to turn on or off the external device. Pin 3 and pin 4 can be connected to an external sensor and the state of voltage will be monitored from the initial state 'LOW'.

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

I/O Terminal Block:



External I/O Port



- 1 Power
- 2 Digital Output
- 3 Digital input(DI+)
- 4 Ground(DI-)

The digital input is used for connecting external alarm devices and once triggered images will be taken and e-mailed.

# Technical Specifications

## NETWORK PROTOCOL SUPPORT

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

## BUILT-IN NETWORK INTERFACES

- 10/100BASE-TX Ethernet port

## VIDEO ALGORITHM SUPPORT

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

## VIDEO RESOLUTION

- Up to 30fps at 176 x 144
- Up to 30fps at 320 x 240
- Up to 30fps at 640 x 480

## VIDEO FEATURES

- Adjustable image size and quality
- Time stamp and text overlays
- 3 configurable motion detection windows
- Flip & mirror

## VIDEO BIT RATE

- 20K to 4M

## CAMERA SPECIFICATIONS

- VGA Progressive CMOS Sensor
- 1.5 Lux @ F1.4
- Electronic rolling shutter
- 3.7-12mm vari-focal lens, F1.4-F2.8

## 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
- 3-AXIS ANGLE
- X : 350°, Y : 45°, Z : 350°

### POWER INPUT

- 100-240VAC, 50/60Hz

### POWER CONSUMPTION

- Max 3.6 W

### DIMENSIONS

- 194 (W) X 180 (D) X 107 (H) (mm)

### WEIGHT

- 1.39lbs

### 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 or NAS via web browser

### SURVEILLANCE

(Motion detection weekly schedule)

- Upload snapshots/video clips via email
- Upload snapshots/video clips via FTP

### **SYSTEM REQUIREMENTS**

- Operating System: Microsoft® XP, Vista
- Browser: Internet Explorer, Firefox, Netscape, Mozilla, Opera browser

### **SUPPORTED PDA, MOBILE PHONES & SOFTWARE**

Handsets with 3GPP player

- Packet Video Player 3.0
- QuickTime 6.5
- Real Player 10.5

### **OPERATION TEMPERATURE**

- 0° to 40° C (32° to 104° 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

<sup>1</sup> The mobile device must have 3G support and subscribe to 3G service from the phone service provider. The playback device must be equipped with 3G video playback such as RealPlayer™ or PacketVideo™.

# 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-6110)
- Hardware Revision (located on the label on the bottom of the network camera (e.g. rev A1))
- Serial Number (s/n number located on the label on the bottom of the network 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, the actual price paid by the original purchaser for the defective Hardware will be refunded 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 D-Link 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, the price paid by 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 D-Link 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. D-Link 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.

**Trademarks:**

D-Link is a registered trademark of D-Link Corporation/D-Link Systems, Inc. Other trademarks or registered trademarks are the property of their respective owners.

**Copyright Statement:**

No part of this publication or documentation accompanying this product may be reproduced in any form or by any means or used to make any derivative such as translation, transformation, or adaptation without permission from D-Link Corporation/D-Link Systems, Inc., as stipulated by the United States Copyright Act of 1976 and any amendments thereto. Contents are subject to change without prior notice.

Copyright ©2008 by D-Link Corporation/D-Link Systems, Inc. All rights reserved.

**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.

Version 1.0  
May 2, 2008