

USER MANUAL

DCS-900

VERSION 4.0



D-Link[®]

NETWORK CAMERA

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Package Contents

- D-Link DCS-900 Wired Network Camera
- Power Adapter (5.0V, 2.5A)
- CAT5 Ethernet Cable
- Camera Stand
- CD-ROM with Software and Manual
- Quick Installation 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.

Minimum System Requirements

- Local Area Network: 10Base-T Ethernet or 100Base-TX Fast Ethernet
- PC with 1.3GHz processor, 128MB RAM and 20MB of available hard disk space.
- Windows 2000/XP/Vista
- A CD-ROM drive
- An existing 10/100 Ethernet-based network.

Introduction

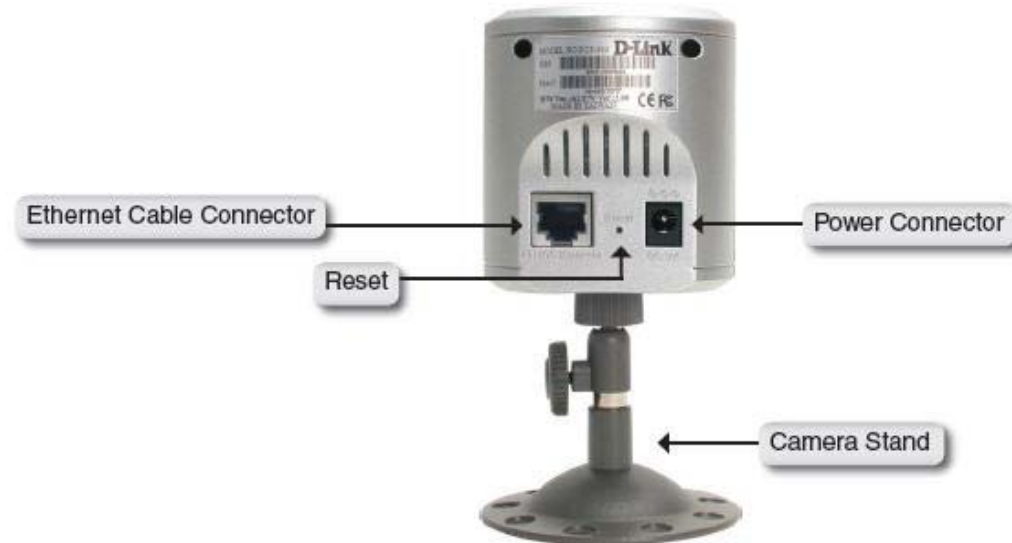
Congratulations on your purchase of the DCS-900 Wired Network Camera! The DCS-900 is a versatile and unique solution for your small office or home. Unlike a PC Camera, the DCS-900 is a stand-alone system with a built-in CPU and Web server that transmits high quality video images for monitoring. The DCS-900 can be accessed remotely, and controlled from any PC/Notebook over the Intranet or Internet via a web browser. The simple installation procedure and intuitive web-based interface offer easy integration with your Ethernet or Fast Ethernet network. The DCS-900 also comes with remote monitoring capability for a complete and cost-effective home security solution.

Features and Benefits

- **Simple to Use** - The DCS-900 is a stand-alone system with a built-in CPU, requiring no special hardware or software such as PC frame grabber cards. The DCS-900 supports both ActiveX mode for Internet Explorer and Java mode for Internet Explorer and Netscape Navigator .
- **Supports a Variety of Platforms** - Supporting TCP/IP networking, HTTP, and other Internet related protocols. The DCS-900 can also be integrated easily into other Internet/Intranet applications because of its standards-based features.
- **Web Configuration** - Using a standard Web browser, Administrators can configure and manage the Internet Camera directly from its own Web page via the Intranet or Internet. This means you can access your DCS-900 at anytime from anywhere in the world!
- **Remote Monitoring Utility** - The IPView SE application adds enhanced features and functionality for the Internet Camera and allows administrators to configure and access the Internet Camera from a remote site via Intranet or Internet. Other features include image monitoring, recording images to a hard drive, viewing up to 4 cameras on one screen, and taking snapshots.
- **Broad Range of Applications** - With today's high-speed Internet services, the Internet Camera can provide the ideal solution for live video images over the Intranet and Internet for remote monitoring. The Internet Camera allows remote access from a Web browser for live image viewing and allows the administrator to manage and control the Internet Camera at anytime, from anywhere in the world. Many applications exist, including industrial and public monitoring of homes, offices, banks, hospitals, child-care centers, and amusement parks.

Hardware Overview

Connections



LEDs



Hardware Installation

Attach the Swivel Stand

Locate the stand mount on the bottom panel of the DCS-900 and screw on the swivel stand to the base of the DCS-900.



Connect the Ethernet Cable

Connect the included Ethernet cable to the network cable connector located on the back panel of the DCS-900 and attach it to the network. Network connectivity is confirmed when the green LED Indicator on the DCS-900, located below the Power LED, is illuminated.



Attach the External Power Supply

Attach the external power supply to the DC power input connector located on the rear panel of the DCS-900 and connect it to a wall outlet or power strip.



NOTE: Power source is confirmed when the red LED Power Indicator located to the right of the lens on the DCS-900 is illuminated.

Security

To ensure the highest security and prevent unauthorized usage of the DCS-900, the Administrator has the exclusive privilege to create all users. The DCS-900 supports multi-level password protection/access that can be restricted by the Administrator for defined users who have a User Name and Password. The Administrator can release a public User Name and Password so that when remote users access the DCS-900 they will be allowed to view the images transmitted by the DCS-900.

NOTE: When the DCS-900 is used for the first time, it is highly recommended that the Administrator set the Admin ID and Admin Password to restrict user access to the DCS-900 since the default settings are Null String (no password). Once the ID and Password are defined, only the Administrator has access to the management of the DCS-900. This procedure should be done as soon as possible since the security features of the DCS-900 will not be enabled until the Admin ID and Admin Password is defined.

Auto-Run Installation

Insert the Installation CD-ROM into your computer's CD-ROM drive to initiate the Auto-Run program. The content of the Installation CD-ROM includes:

- **View Quick Installation Guide** - click to preview the *Quick Installation Guide* in PDF format for step-by-step instructions of the DCS-900 Installation.
- **View Manual** – click to preview the *User's Guide* in PDF format for detailed information of the DCS-900.
- **Multicamera Management** – click to install and use Setup Wizard to complete further settings for your Internet camera.
- **IPView SE** – click to install and use IPView SE to manage your cameras by enabling you to search, configure, and preview all the DCS-900s from one location.
- **Install Acrobat Reader** – click to launch Acrobat Reader for the viewing and printing of PDF files in the Installation CD-ROM.
- **Technical Support** – Click to display the technical support information.
- **Quick Installation** – Click to start a quick installation.
- **Exit** – click to close the Auto-Run program.



Quick Installation

Click the **Start** button  to start the **Quick Installation**.



Follow the simple steps below to quickly install the device, click **NEXT>>**.



The image shows a software window titled "D-Link Click'n Connect". The window has a dark header with the "D-Link" logo. The main content area is light orange and features a central illustration of a D-Link camera on a stand. A callout bubble points to the back of the camera, showing a circular label with a barcode and the text "MAC ID: 00XXXXXXXXXX". An arrow points from this callout to a larger circular inset on the right, which also shows the same label. Below the illustration, the text reads: "Write down the **MAC ID** of your camera. This can be found on the label imprinted on the **rear** of the unit. Click **NEXT button** to continue." On the right side of the window, there is a vertical list of steps: "1. Install Device", "2. Setup Device", and "3. Connection Information". The third step is highlighted with a red arrow and the text ">> Write down IP Camera MAC ID". At the bottom of the window, there are three buttons: "EXIT", "<< BACK", and "NEXT >>". A mouse cursor is pointing at the "NEXT >>" button.

D-Link

1. Install Device
2. Setup Device
3. Connection Information
>> Write down IP Camera
MAC ID

Write down the **MAC ID** of your camera. This can be found on the label imprinted on the **rear** of the unit.
Click **NEXT button** to continue.

EXIT << BACK NEXT >>

After done the connection of Ethernet cable, click **NEXT>>**.

The image shows a software window titled "D-Link Click'n Connect" with a dark header containing the "D-Link" logo. The main content area is light orange and features a diagram on the left showing a "Wireless Router", "ADSL modem", and "Computer" connected by blue lines. An orange arrow points from this diagram to a circular inset on the right showing the "Rear of device base" with a blue Ethernet cable plugged into the "LAN" port. Below the diagram, text reads: "Connect an Ethernet cable from the LAN port of your router to the LAN port of the Camera before clicking the NEXT button." On the right side, a grey sidebar lists steps: "1. Install Device", "2. Setup Device", and "3. Connection Information", with the instruction ">> Connect the device to the LAN" in red. At the bottom, there are three buttons: "EXIT", "<< BACK", and "NEXT >>" with a mouse cursor hovering over the last one.

D-Link Click'n Connect

D-Link

Wireless Router
ADSL modem
Computer

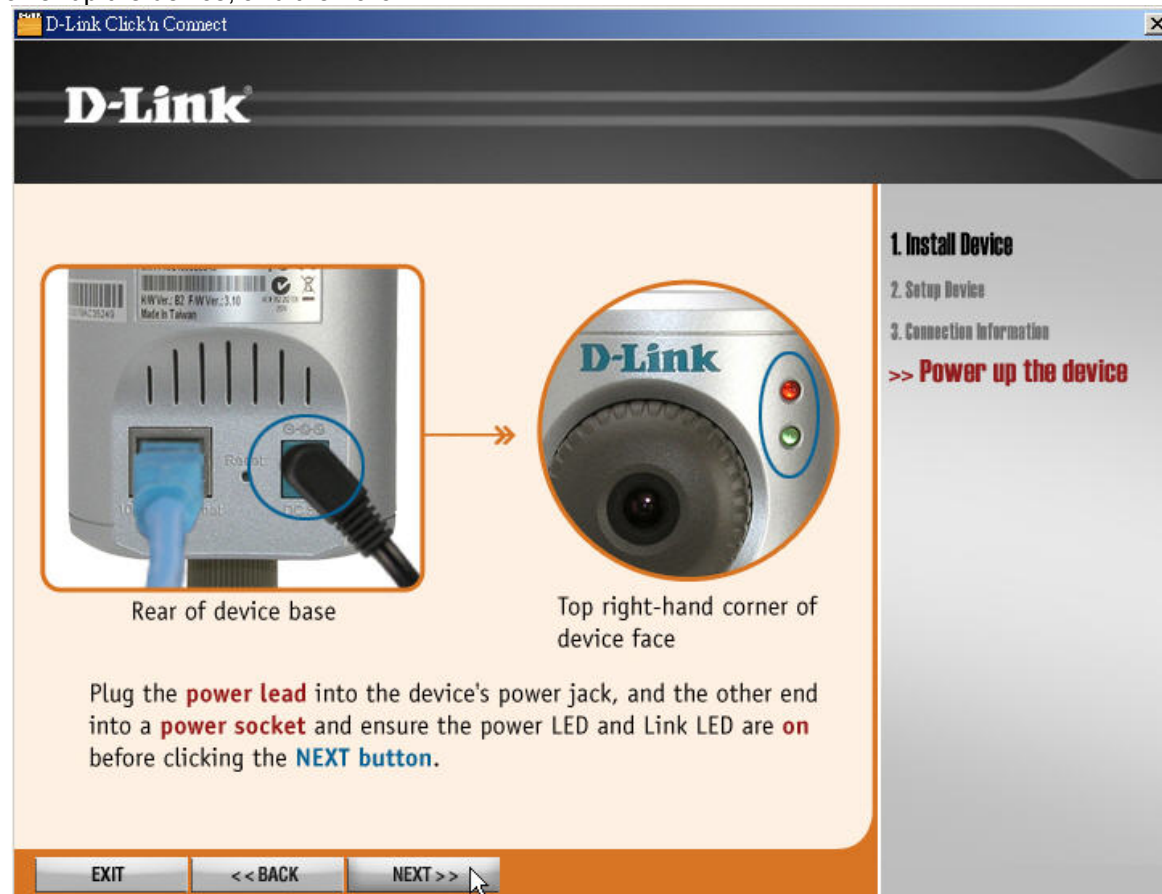
Rear of device base

Connect an Ethernet cable from the LAN port of your router to the LAN port of the Camera before clicking the NEXT button.

1. Install Device
2. Setup Device
3. Connection Information
>> Connect the device to the LAN

EXIT << BACK NEXT >>

Follow the instruction below to power up the device, and then click **NEXT>>**.



The image shows a software window titled "D-Link Click'n Connect" with a blue title bar. The window has a dark header with the "D-Link" logo. The main content area is light orange and contains two images: a rear view of the device base with a power jack circled in blue, and a top-right view of the device face with the power and Link LEDs circled in blue. An arrow points from the rear view to the top-right view. Below the images, text instructs the user to plug the power lead into the power jack and ensure the power and Link LEDs are on. A progress bar on the right shows three steps: "1. Install Device", "2. Setup Device", and "3. Connection Information", with the third step highlighted in red and labeled ">> Power up the device". At the bottom, there are three buttons: "EXIT", "<< BACK", and "NEXT >>".

D-Link

Rear of device base

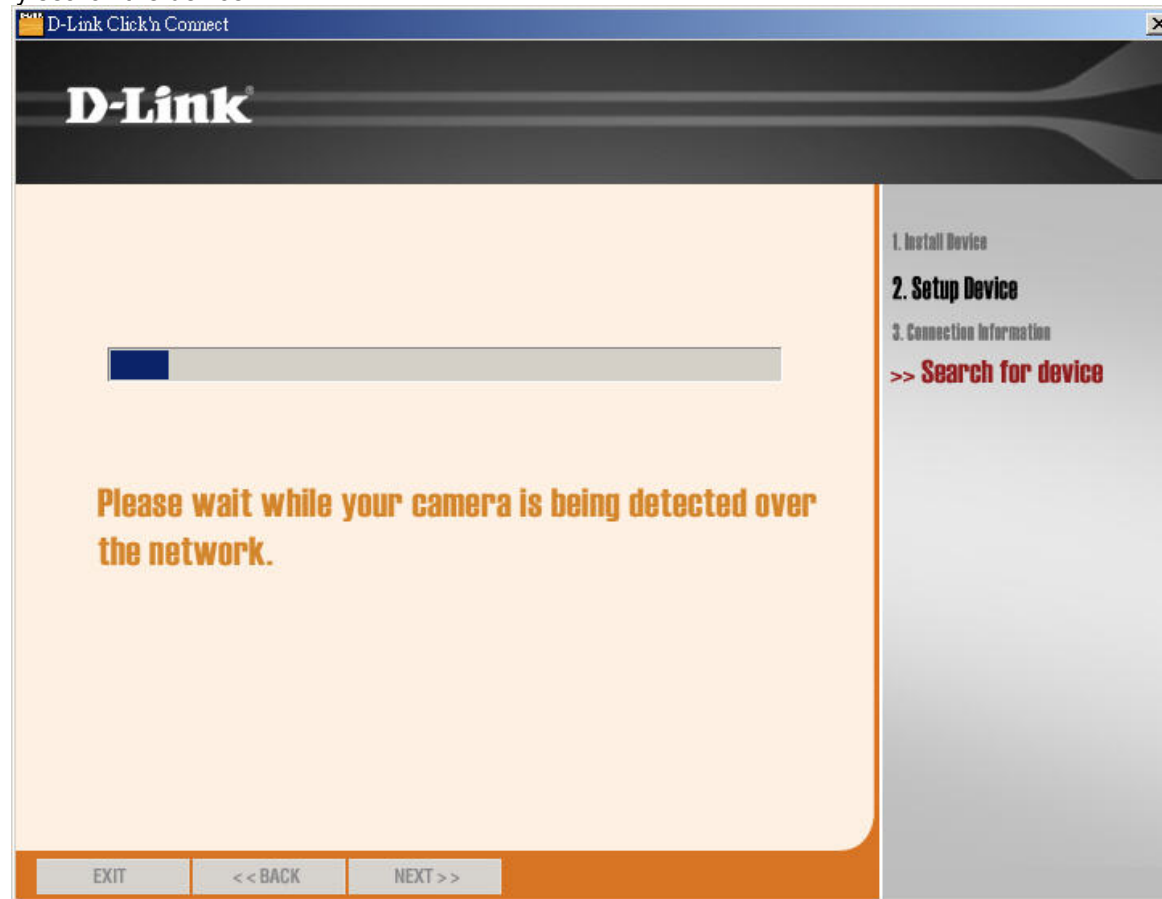
Top right-hand corner of device face

Plug the **power lead** into the device's power jack, and the other end into a **power socket** and ensure the power LED and Link LED are **on** before clicking the **NEXT button**.

1. Install Device
2. Setup Device
3. Connection Information
>> Power up the device

EXIT << BACK NEXT >>

Then the system will automatically search the device.



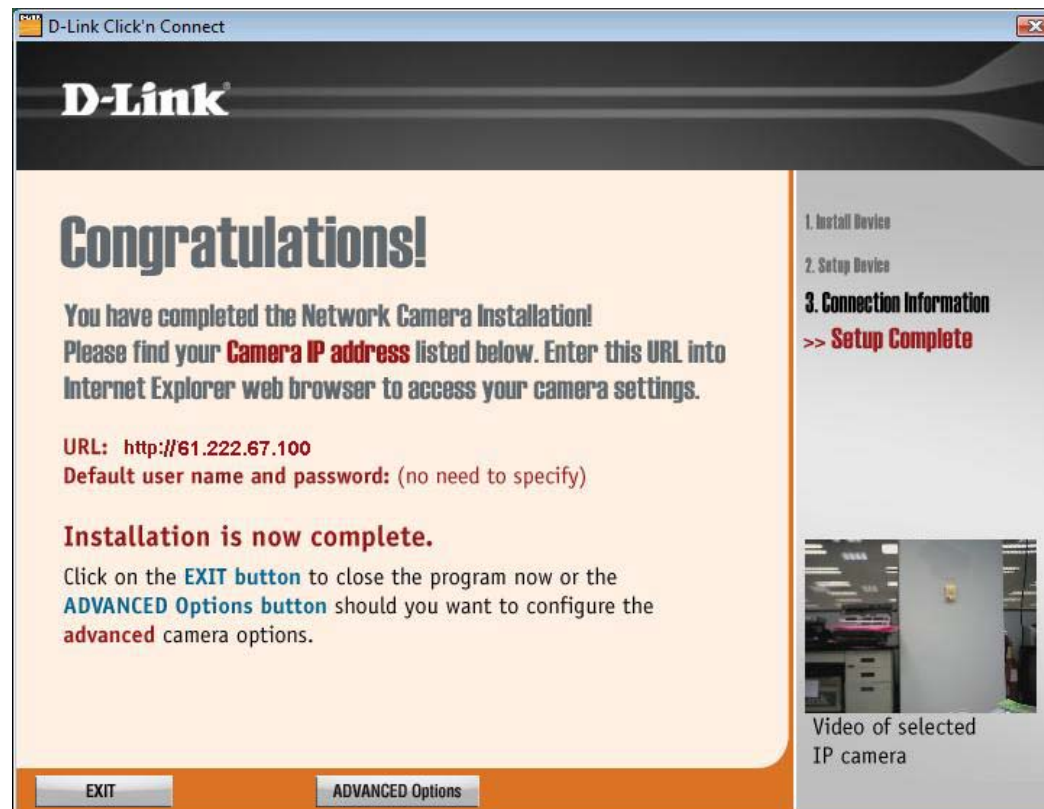
Select your camera's MAC ID from the MAC ID List, and then click **NEXT>>**.



DCC (D-Link Click'n Connect) will auto-detect whether your Internet connection with or without DHCP and diagnose that if DHCP is also available for your IP camera or not in order to display the next corresponding screen.

With DHCP:

Since DHCP is available for your Internet connection and IP camera, **DCC** will start DHCP assign automatically for your IP camera and display the following screen when the process is done.

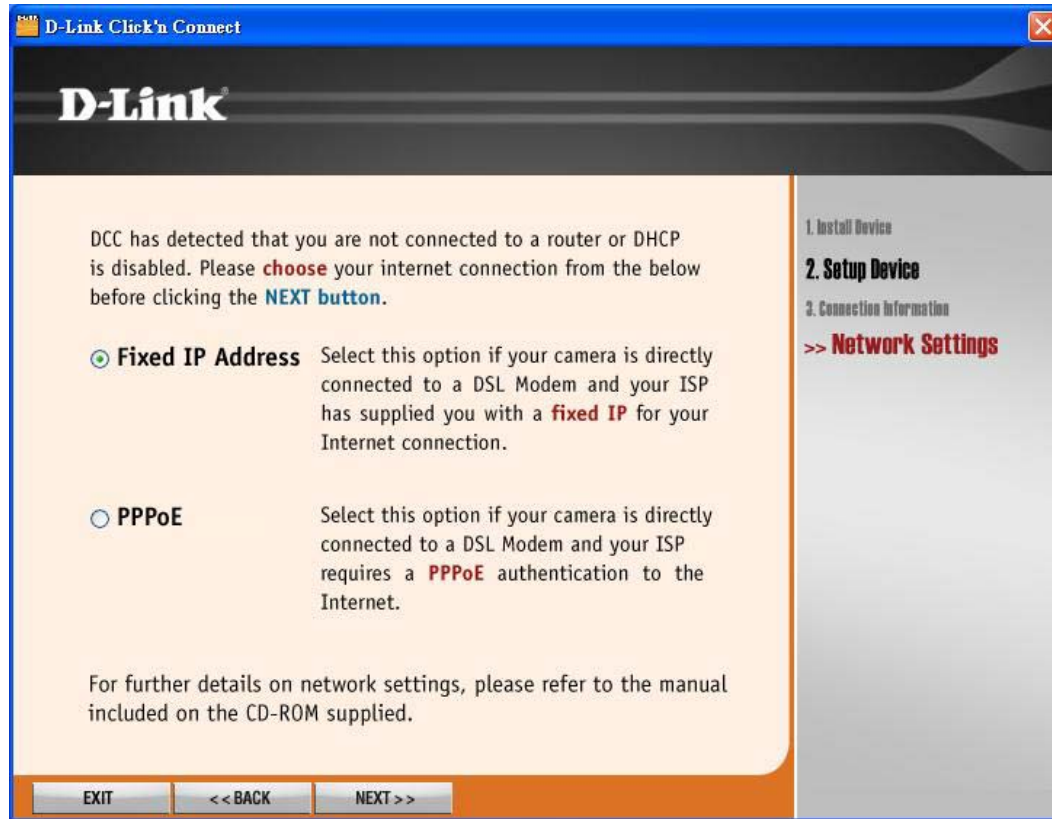


Without DHCP:

If DHCP is not available for your network and IP camera, the following screen will show up to allow you select **Fixed IP Address** or **PPPoE** for your Internet connection.

For Fixed IP Address:

If your camera is directly connected to a DSL Modem and your ISP has supplied you with a fixed IP for your Internet connection, you may select this option and click **NEXT>>** button to continue.



When **Fixed IP Address** is selected for your Internet connection, you need to fill the IP information in the related fields, and then click **NEXT>>**.

The screenshot shows a window titled "D-Link Click'n Connect" with the D-Link logo at the top. The main content area is light orange and contains the following text and form fields:

Please complete the fields below, before clicking on the **NEXT** button.

Fixed IP Address

IP Address

Subnet Mask

Default Gateway

Primary DNS

Secondary DNS

The IP information is obtained from your subscribed ISP.

For further details on network settings, please refer to the manual included on the CD-ROM supplied.

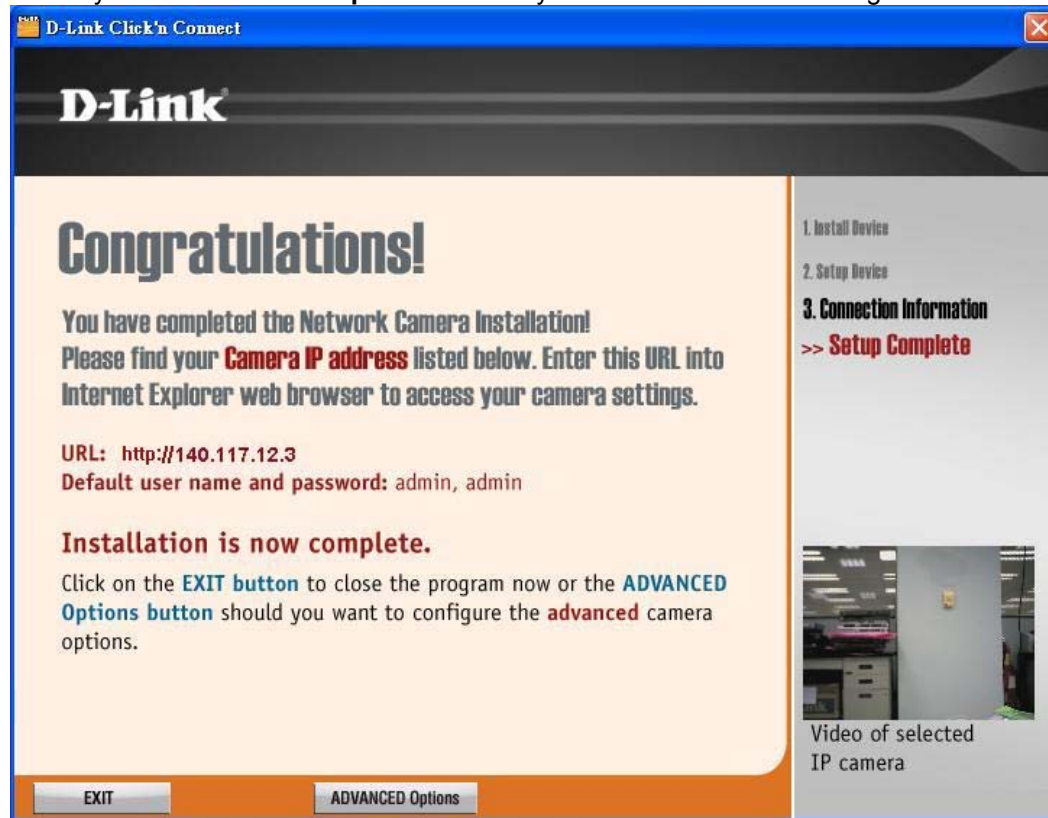
At the bottom of the window, there are three buttons: "EXIT", "<< BACK", and "NEXT >>".

On the right side of the window, there is a vertical sidebar with a grey background. It contains a list of steps:

1. Install Device
2. Setup Device
3. Connection Information

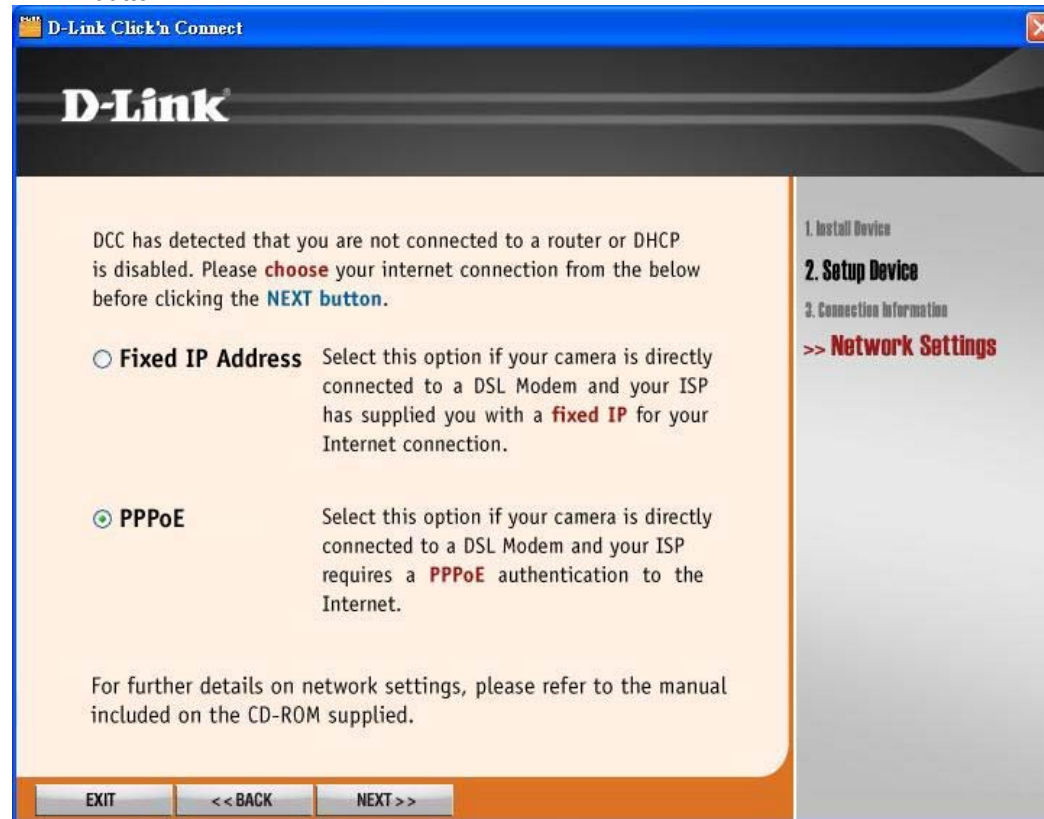
Below the list, there is a red link that says ">> Network Settings".

The installation is now complete. You may click **ADVANCED Options** to enter your IP camera's Web Configuration or **EXIT** to leave the screen.



For PPPoE:

Select **PPPoE** option and click **NEXT>>** button.



Enter **Username** and **Password** that are supplied by your ISP in the related fields and click **NEXT>>**.

The screenshot shows a window titled "D-Link Click'n Connect" with the D-Link logo at the top. The main content area is light orange and contains the following text: "Please input your **username** and **password** while ensuring that your camera is directly attached to your **Modem**. Click on the **NEXT button** to continue." Below this is the "PPPoE" section with three input fields: "Username", "Password", and "Confirm Password". To the right of these fields is a note: "The username and password are supplied to you by your ISP. Please contact your ISP if you need to retrieve this information." At the bottom of the main area, there is a horizontal line and the text: "For further details on network settings, please refer to the manual included on the CD-ROM supplied." On the right side of the window, there is a vertical grey sidebar with a list of steps: "1. Install Device", "2. Setup Device", and "3. Connection Information". The "3. Connection Information" step is expanded, showing ">> Network Settings" in red. At the bottom of the window, there are three buttons: "EXIT", "<< BACK", and "NEXT >>".

D-Link

Please input your **username** and **password** while ensuring that your camera is directly attached to your **Modem**. Click on the **NEXT button** to continue.

PPPoE

Username The username and password are supplied to you by your ISP. Please contact your ISP if you need to retrieve this information.

Password

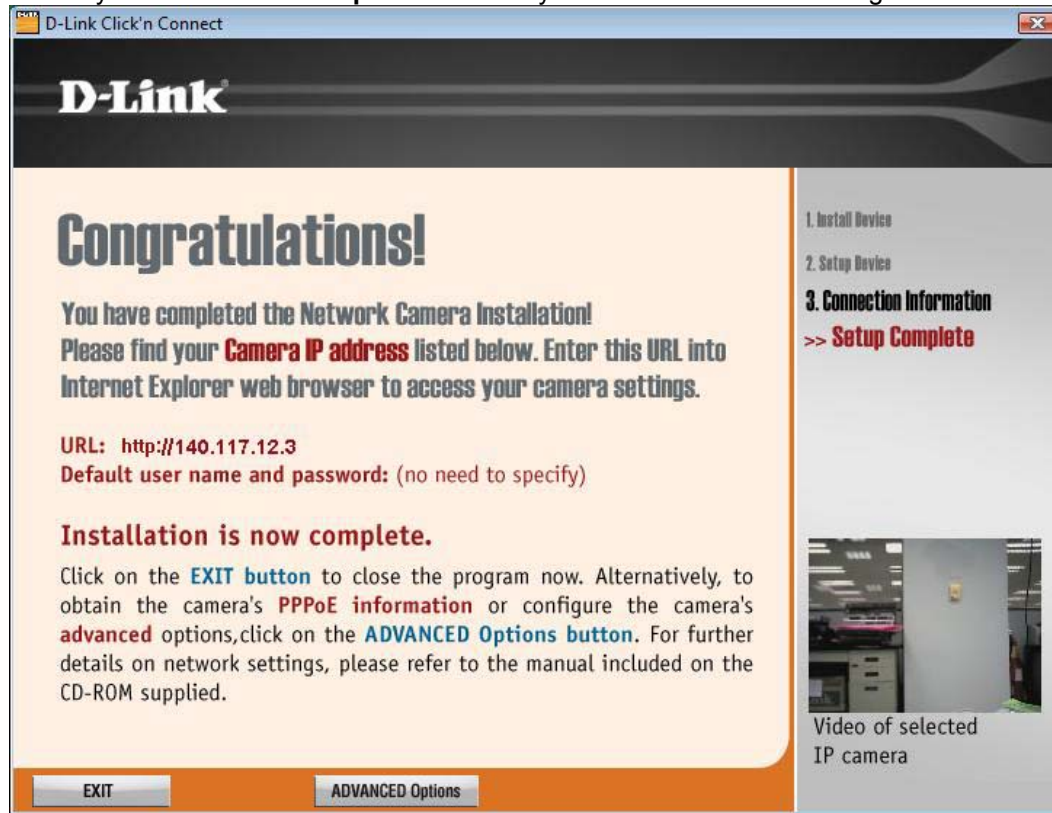
Confirm Password

For further details on network settings, please refer to the manual included on the CD-ROM supplied.

1. Install Device
2. Setup Device
3. Connection Information
>> **Network Settings**

EXIT << BACK NEXT >>

The installation is now complete. You may click **ADVANCED Options** to enter your IP camera's Web Configuration or **EXIT** to leave the screen.

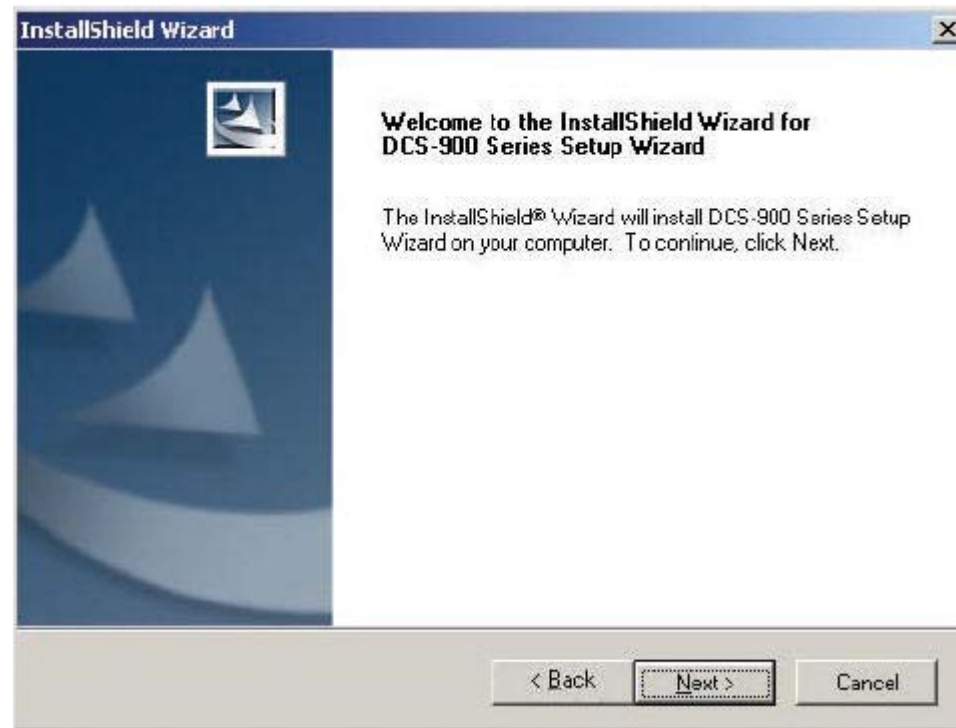


Multicamera Management

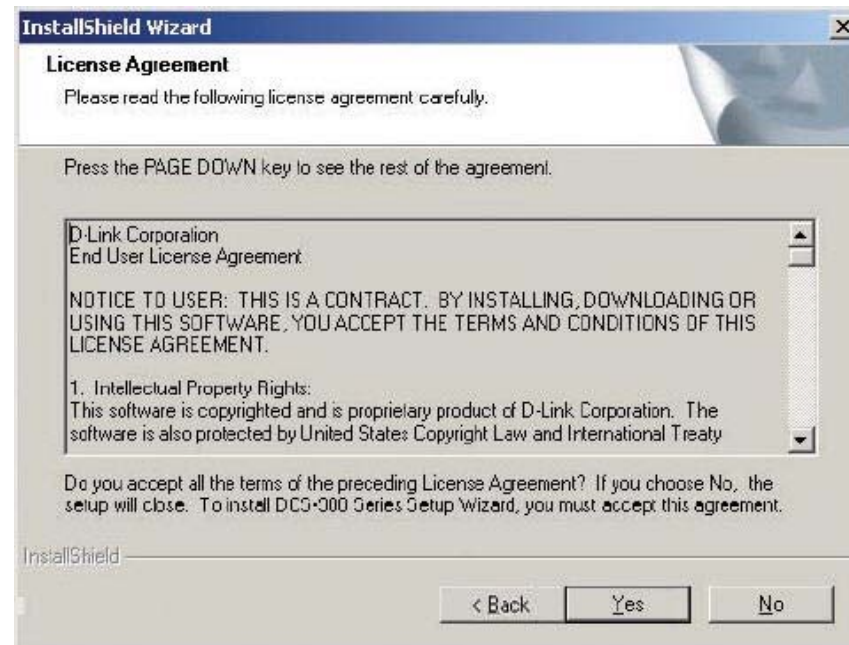
Click **Multicamera Management** of the Installation CD.



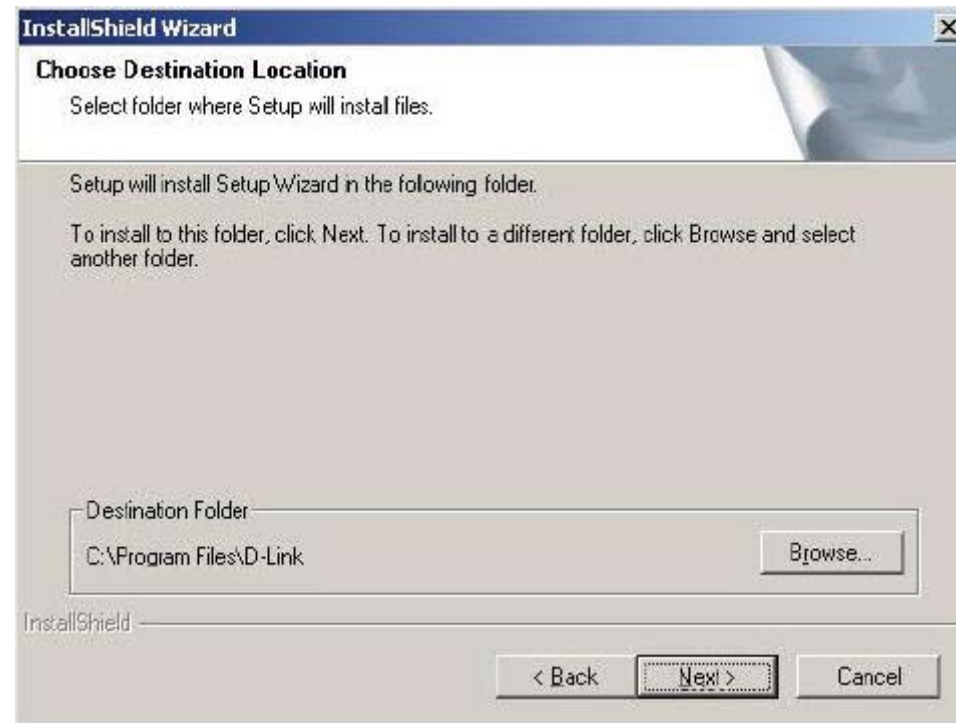
Follow the simple steps below to run the Setup Wizard to guide you quickly through the installation process.
Click **Next**.



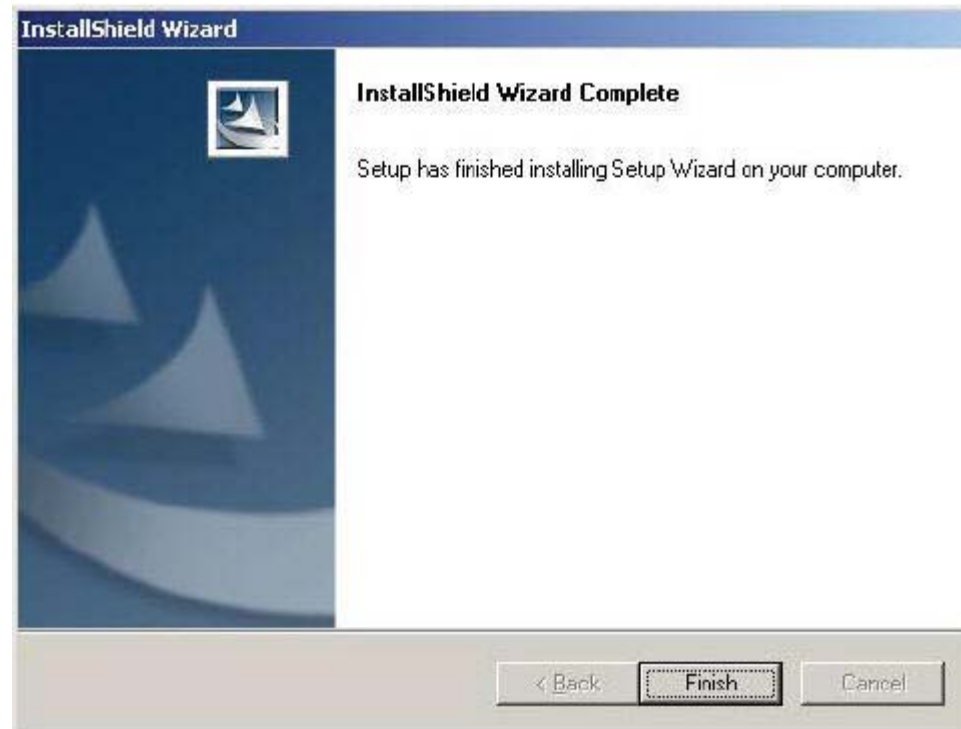
Click **Yes**.



Click **Next**.



Click **Finish**.



Be aware that the **Setup Wizard** is offered for you to do configuration of your camera in the future only. Not necessary to run the **Setup Wizard** for your first time using the camera.

To run the **Setup Wizard**, click on **Start→ Programs→ D-Link Setup Wizard**. Your camera's IP Address will be displayed under the heading of **Current IP Address** along with its corresponding MAC Address. Click **Wizard**.



You must change the **Admin ID** and **Password** immediately to protect your camera against unauthorized access. By default, the **Admin ID** and **Password** are blank. To change the Admin ID and Password, select both Change boxes and enter a **New ID** and **New Password**. Click **Next**.



The image shows a web-based configuration interface for a D-Link SECURICAM Network camera. At the top, there is a blue header with the D-Link logo and the text "SECURICAM Network". Below the header, the main content area is light gray and contains the following elements:

- A heading: "Set up an Admin ID and Password to secure your camera. Click Next to continue."
- Two input fields: "Admin ID:" and "Password:", each followed by a white text box.
- Two checkboxes: "Change" (unchecked) under each of the "Admin ID:" and "Password:" labels.
- Two groups of input fields, each enclosed in a light gray box:
 - The first group (for Admin ID) contains "New ID:" followed by a text box, and "Reconfirm:" followed by a text box.
 - The second group (for Password) contains "New Password:" followed by a text box, and "Reconfirm:" followed by a text box.
- At the bottom right, there are three buttons: "Back" (with a left arrow icon), "Next" (with a right arrow icon), and "Exit" (with a red square icon).

Enter an **IP Address** and **Subnet Mask** for your camera if you want to change the current settings. Enter your **Gateway** and **DNS** settings. These settings must correspond with your network settings for you to access the camera. If you are unsure of what these settings should be, check with your network administrator. If you are connecting to a router, the **Gateway** and **DNS 1** entries should be the IP address of your router. Click **Next**.



The image shows a web-based configuration interface for a D-Link SECURICAM Network. The page has a blue header with the D-Link logo and the text "SECURICAM Network". The main content area is titled "Set IP Address" and contains five input fields for network configuration. The values entered in the fields are: IP Address: 192.168.0.20, Subnet Mask: 255.255.255.0, Default Gateway: 192.168.0.1, DNS 1: 192.168.81.1, and DNS 2: 4.2.2.2. At the bottom right of the form, there are three buttons: "Back" (with a left arrow), "Next" (with a right arrow), and "Exit" (with a red stop sign icon).

IP Address	<input type="text" value="192.168.0.20"/>
Subnet Mask	<input type="text" value="255.255.255.0"/>
Default Gateway	<input type="text" value="192.168.0.1"/>
DNS 1	<input type="text" value="192.168.81.1"/>
DNS 2	<input type="text" value="4.2.2.2"/>

Back Next Exit

If you need to make any changes, click **Back** to modify your settings. Otherwise, click **Restart** to save your settings.



The image shows the completion screen of the D-Link SECURICAM Network Setup Wizard. At the top left is the D-Link logo with the tagline "Building Networks For People". To its right is the "SECURICAM Network" logo. Below the logos are six input fields for configuration: Admin ID (empty), Password (empty), IP Address (192.168.0.203), Subnet (255.255.255.0), DNS 1 (4.2.2.2), and DNS 2 (4.2.2.3). Below these fields is a message: "The Setup Wizard has completed. Click on **Back** to modify your settings. Click **Restart** to save your current settings and reboot the Internet Camera." At the bottom right are two buttons: "Back" with a left-pointing arrow icon and "Restart" with a circular refresh icon.

Admin ID :	<input type="text"/>
Password :	<input type="password"/>
IP Address :	<input type="text" value="192.168.0.203"/>
Subnet :	<input type="text" value="255.255.255.0"/>
DNS 1 :	<input type="text" value="4.2.2.2"/>
DNS 2 :	<input type="text" value="4.2.2.3"/>

The Setup Wizard has completed. Click on **Back** to modify your settings. Click **Restart** to save your current settings and reboot the Internet Camera.

Your setup is now complete!

Click **Link** to launch your web browser and view your images.

Mac Address	Current IP Address	Assigned	Camera Name
00:11:3D:51:6F:5A	192.168.0.202	OK	DL-S-900

Using the Configuration Menu

After completing the Setup Wizard, you are ready to use your camera. The Web configuration utility is designed to easily access and configure your DCS-900. Click the “Link” button will open up the main configuration page.

The Home screen of your camera can be accessed from the Setup Wizard using the **Link** button. You can also use your favorite Web browser, type “http://address” in the address box where address is the IP address that you assigned to the DCS-900 from the previous section. Press Enter.

After login in the Web Configuration menu, the home screen will show up. Use the following displayed sections to set up and view your Internet Camera:

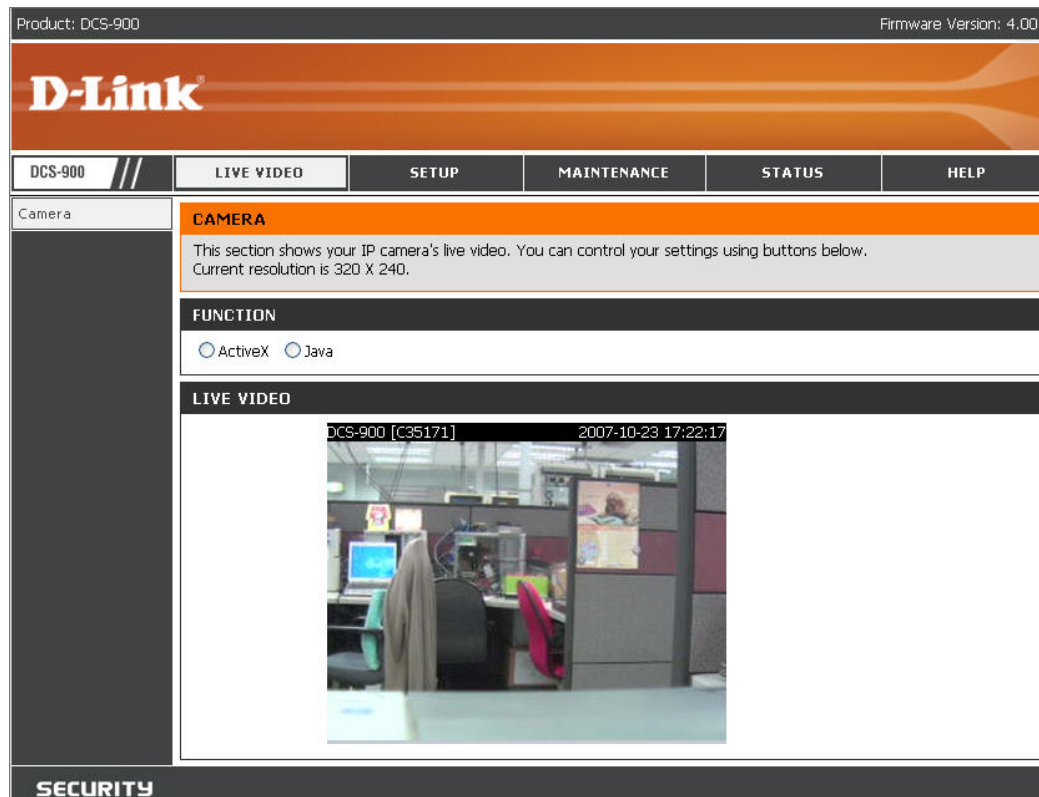
- **LIVE VIDEO**
- **SETUP**
- **MAINTENANCE**
- **STATUS**
- **HELP**

LIVE VIDEO

This section allows you to display your IP camera's live video by using Activex or Java.

LIVE VIDEO > Camera

- Please make sure that you have the latest version of Java installed on your computer to ensure proper operation when viewing the video in Java mode. Java can be downloaded for free from Sun's web site. (<http://www.java.com>)
- When you connect to the home page, you will be prompted to download ActiveX. If you want to use ActiveX to view your video images instead of Java, then you must download ActiveX.



Function –

- **Activex:** For Windows® users that do not have Java installed, please choose this option to view video streaming on the Home page.
- **Java:** For Windows® users that have Java installed can also use this for viewing video. Mac® users should also choose this mode to view video.

SETUP

This section allows you to further set up or change the configuration of your IP camera.

SETUP > Network Setup

This option, **Network Setup**, allows you to configure your LAN and Internet configuration, including the settings for LAN, PPPoE, and port. After done the configuration, you may click **Save Settings** button to save the new settings or **Don't Save Settings** button to abandon it.

Product: DCS-900 Firmware Version: 4.00

D-Link

DCS-900 // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

Network Setup

NETWORK SETUP

You can configure your LAN and internet settings from here.

Save Settings Don't Save Settings

TCP/IP

IP Address Mode : Fixed IP

IP Address : 192.168.0.111

Subnet Mask : 255.255.255.0

Default Gateway : 192.168.0.1

Dynamic IP (DHCP)

PPPoE

User ID :

Password :

DNS IP Address : 1. 168.95.1.1

2. 168.95.192.1

Second HTTP Port : Enable Disable

Port Number : 81

Second HTTP Port : Enable Disable

Port Number : 81

UPnP : Enable Disable

Save Settings Don't Save Settings

Helpful Hints..

IP Address mode:
This can be done manually using the fixed IP or automatically using the DHCP client (Dynamic Host Configuration Protocol is a networking protocol that will allow **leasing** of an IP address by the client from a server for a specified amount of time. This alleviates the task of the user from having to keep track of available IP Addresses on the network).

PPPoE:
If you use the DCS-900 to connect directly to the Internet you will need to put in the username and password that was given to you when you set up your account with the Internet Service Provider in these fields.

SECURITY

IP Address Mode –

- **Fixed IP/ DHCP:** If you are using a LAN connection, select either DHCP Connection or Static IP Address. If manually assigning a Static IP, enter your IP Address, IP Subnet Mask, and Gateway IP Address into the fields provided.
- **PPPoE Settings:** If you are using a PPPoE connection, enable it and enter the User ID and Password for your PPPoE account.

DNS IP Address – This is the IP Address of your ISP's Domain Name Server, if you are using a fixed IP Address you will need to know this, if not you will need to contact your ISP or your network administrator.

Second HTTP Port – Most ISPs do not open port 80 (a DCS-900 default video transfer port) for their residential customers, the DCS-900 has the ability to use a different port by enabling the second http port for its video transfer.

If the **Second HTTP Port** is enabled, it will automatically disable the default port 80. Any unused ports can be used such as port 800, 801, etc. Remember that if the DCS-900 were behind a router you would need to forward that port to the DCS-900's IP Address. When accessing the camera you would need to type the camera's IP Address + the port number (http://xxx.xxx.xxx.xxx:port number, or http://192.168.0.20:800 for example). Please refer to "Installing the DCS-900 Behind a Router" of this manual.

UPnP – Short for **Universal Plug and Play**. It is a networking architecture that provides compatibility among networking equipment, software, and peripherals. The DCS-900 is an UPnP enabled Internet camera, and this function will work with operating systems such as Windows® XP. If you do not want to use the UPnP functionality, you can disable it by selecting Disabled option. This function is enabled by default.

SETUP > Dynamic DNS

If you have a DSL or Cable service provider that changes your modem IP address periodically, Dynamic DNS (Domain Name Service), a method of keeping a domain name linked to a dynamic IP address, is useful. With most Cable and DSL connections, you are assigned a dynamic IP address and that address is used only for the duration of that specific connection. With the DCS-900, you can set up your DDNS service and the DCS-900 will automatically update your DDNS server every time it receives a different IP address. Depending on the service, this update may take a few hours.

If you are using a DDNS connection, select Enable option and enter in your Host Name, User Name, and Password. After done the configuration, you may click **Save Settings** button to save the new settings or **Don't Save Settings** button to abandon it.

Product: DCS-900 Firmware Version: 4.00

D-Link

DCS-900 // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

Network Setup

Dynamic DNS

Video

Mail

FTP

Time and Date

DYNAMIC DNS

The Dynamic DNS feature allows you to host a server (Web, FTP, Game Server, etc...) using a domain name that you have purchased (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

DYNAMIC DNS SETTING

Enable Disable

Service Provider : ▼

Host Name :

User Name/E-mail :

Password/Key :

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.

SECURITY

SETUP > Video

This **Video** option allows you to set up your IP camera's video quality, resolution, and Frame rate. After done the configuration, you may click **Save Settings** button to save the new settings or **Don't Save Settings** button to abandon it.

Product: DCS-900 Firmware Version: 4.00

D-Link

DCS-900 // LIVE VIDEO **SETUP** MAINTENANCE STATUS HELP

Network Setup
Dynamic DNS
Video
Mail
FTP
Time and Date

VIDEO

In this section, you can configure the camera video quality, resolution, and frame rate.

VIDEO SETTING

Video Resolution : 160 x 120 320 x 240 640 x 480

Compression Rate : Very Low Low Medium High Very High

Frame Rate : 1 5 7 15 20 30 Auto
(Frames/Sec.)

Brightness Control :

Contrast Control :

Saturation Control :

Light Frequency : 50 Hz 60 Hz

Mirror :

Flip :

Anti-Flicker :

SECURITY

Helpful Hints..

Video Resolution:
3 settings are available from QVGA @ 160x120, QVGA @ 320x240 and VGA @ 640x480.

Compression rate:
Compression will be selectable from 1) very high 2) high 3) middle 4) low and 5) very low.

Frame Rate:
This is adjustable from 1, 5, 7, 15, 20, 30 and auto. 30 frames a second is video quality and in theory any transition from frame-to-frame for frame rates above 15 fps is imperceptible to the eye.

Video Setting –

- **Video Resolution:** There are three settings available to choose from 160x120, 320x240, and 640x480.
- **Compression Rate:** Four options are available for this parameter: Very Low, Low, Middle (default), High, and Very High.
- **Frame Rate (fps):** Three options are available for the refresh frame rate: 1, 5, 7, 15, 20, 30 frames per second (fps), and Auto. By default the frame rate is set to

Auto.

- **Brightness Control:** Allows you to adjust the brightness level. The default setting is 64.
- **Contrast Control:** Allows you to adjust the contrast level. The default setting is 64.
- **Saturation Control:** Allows you to adjust the saturation level. The default setting is 64.
- **Light Frequency:** Adjust the light frequency to suit your area of operation. **50Hz** and **60Hz** are available to accommodate the different light frequencies found in USA (**60Hz**) and Europe (**50Hz**) for optimal image quality.
- **Mirror:** Horizontally rotates the video. Check this option if the camera is installed upside down.
- **Flip:** Vertically rotates the video.
- **Enable Anti Flicker:** This option adjust the camera sensor's setting to avoid the image flickering issue under certain light sources. Only use this option when it is necessary.

SETUP > Mail

This option allows you to configure mail settings. If you want to specify the IP camera email settings, you may check **By E-mail** checkbox and modify the further related settings on the **Mail Settings** section. If you are setting up motion detection and will not be recording onto a PC, you can setup an FTP or SMTP account in the camera. You will be emailed or sent images when motion is detected. After done the configuration, you may click **Save Settings** button to save the new settings or **Don't Save Settings** button to abandon it.

Product: DCS-900 Firmware Version: 4.00

D-Link

DCS-900 // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

Network Setup
Dynamic DNS
Video
Mail
FTP
Time and Date

MAIL

This section enable you to specify the camera email settings. Only modify these settings if your details change or you are experiencing issues with alert notifications.

Save Settings Don't Save Settings

E-MAIL ACCOUNT

SMTP Server Address :

Sender e-mail Address :

Receiver e-mail Address :

User Name :

Password :

TIME SCHEDULE

Enable e-mail image to e-mail account

Always

Schedule

Day : Mon Tue Wed Thu Fri Sat Sun

Time Period : Start : (Example : 06:30:00)

Stop : (Example : 22:30:00)

Interval : Seconds

TEST E-MAIL ACCOUNT

Email test will send an Email to a specified email address.

Save Settings Don't Save Settings

Helpful Hints..

SMTP (mail) server Address:
This is the domain name or IP address of your external email server.

Sender email address:
This is the email address of the person sending the camera snapshots.

Receiver email address:
This is the email address of recipient for the SMTP server.

Username:
If the SMTP server uses authentication you must put your username here.

Password:
This is the password that you use with your username.

Enable email snapshots to email account:
Choosing always will start sending snapshots to the recipient's email account right away. Choosing schedule will give you a choice as to when to start sending snapshots to the recipient's email account by the day, as well as what time this should start and when to stop. The frequency of the snapshot interval can also be configured from 1 to 65535 seconds.

SECURITY

E-Mail Account –

- **SMTP Server Address:** The domain name or IP address of external mail server.
- **Sender e-mail Address:** The e-mail address of the person sending the camera snapshots.
- **Receiver e-mail Address:** The e-mail address of recipient for the SMTP server.
- **User Name:** If the SMTP server uses authentication you must enter your user name here.
- **Password:** This is the password that you use with your user name to connect to the SMTP server.

Time Schedule –

- **Enable e-mail image to e-mail account:** Choosing always will start sending snapshots to the recipient's e-mail account right away. Choosing schedule will give you a choice as to when to start sending snapshots to the recipient's e-mail account by the day, as well as what time this should start and when to stop.

Test E-Mail Account – This will send a snapshot to the e-mail account that you have configured in the E-mail section. If you have configured the SMTP account correctly you will be able to send a test file to the e-mail account of the recipient.

SETUP > FTP

This option is used to set up FTP upload configuration.

Product: DCS-900 Firmware Version: 4.00

D-Link

DCS-900 // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

Network Setup
Dynamic DNS
Video
Mail
FTP
Time and Date

UPLOAD SETTING

Please set the ftp upload configuration as necessary.

Save Settings Don't Save Settings

FTP SERVER

Host Address :

Port Number : 21 (Default is 21)

User Name :

Password :

Directory Path : /

Passive Mode : Yes No

TIME SCHEDULE

Enable upload image to FTP server

Always

Schedule

Day : Mon Tue Wed Thu Fri Sat Sun

Time Period : Start : (Example : 06:30:00)
Stop : (Example : 22:30:00)

Video Frequency : 1 Frames/Second
 1 Seconds/Frame

Base File Name :

File : Overwrite
 Date/Time Suffix
 Sequence Number Suffix Up to 1024

TEST FTP SERVER

FTP Server test will upload a JPEG file to FTP Server. (File name : test_date_time.jpg)

Test

Save Settings Don't Save Settings

Helpful Hints..

Host Address:
This is the IP address of the FTP server that you will be connecting to.

Port Number:
Default is port 21. If changed, external FTP client program must change the server connection port accordingly.

Username:
Specifies the user name to access the external FTP server. If you are to upload snapshots to an FTP server you will need to fill in the Domain name or IP address of your external FTP server. The following user settings must be correctly configured for remote access.

Password:
Specifies the password to access the external FTP server.

Directory path:
Specifies the destination folder in the external FTP server.

Enable image upload to FTP server:
Checking this box will enable video upload to the FTP server you selected.

SECURITY

FTP Server –

- **Host Address:** This is the IP address of the FTP server that you will be connecting to.
- **Port Number:** Default is port 21. If changed, external FTP client program must change the server connection port accordingly.
- **User Name:** Specifies the user name to access the external FTP server. If you are to upload snapshots to an FTP server you will need to fill in the Domain name or IP address of your external FTP server.
- **Password:** Specifies the password to access the external FTP server.
- **Directory Path:** Specifies the destination folder in the external FTP server.
- **Passive Mode:** Enabling passive mode will allow access to an external FTP server if your camera is behind a router protected by a firewall.

Time Schedule – Checking this box will enable video upload to the FTP server you selected.

- **Always:** Selecting this will allow snapshot upload to your FTP as soon as you click Apply.
- **Schedule:** Selecting this will allow you to configure the times that you want the snapshots to be uploaded to your FTP server by the days, hours, minutes, and seconds.
- **Video Frequency:** User can select in frames per second (1, 2, 3 or auto, in auto this could go to 4). The user can also select how many seconds (from 1 to 65535 seconds) for each frame.
- **Base File Name:** This will be the name that precedes the time, for example, 9002005072116425101.jpg. This means that the camera took a snapshot in the year 2005, July 21 at 16th hour (4 o'clock), 42 minutes and 51 seconds and it is picture number one.
- **File:**
 - Select **overwrite** and there will only be a few images that are constantly refreshed depending on how many snapshots you choose to have sent.
 - Select **date/time suffix** and the pictures will be named with a date and time also. An example of this can be seen above under the Base file name category.
 - Select **sequence number suffix up to 1024** and all the pictures will be numbered from 1-1024. The total amount of pictures can be configured up to 1024 pictures. Picture number 1025 will be 1 again.

Test FTP Server – Click **Test** button will send a snapshot to the FTP server that you have configured in the Upload section. If you have configured the FTP correctly you will be able to see a test file in your FTP server.

SETUP > Time and Date

This 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. After done the configuration, you may click **Save Settings** button to save the new settings or **Don't Save Settings** button to abandon it.

Product: DCS-900 Firmware Version: 4.00

D-Link

DCS-900 // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

Network Setup
Dynamic DNS
Video
Mail
FTP
Time and Date

TIME SETTING

Please set the date and time configuration as necessary.

TIME AND DATE

Synchronized with Time Server

IP Address : << Select NTP Server ▾

Protocol : NTP Time

TimeZone : Hours

Set Manually

Date : (Example : 2004-09-01)

Time : (Example : 06:12:35)

Synchronized with Computer Time

Helpful Hints..

Synchronize with Time Server:
The time will be based on the GMT setting. The time will be synchronized every 10 minutes. This is also the default setting for the Internet Camera. Remember that the time set does not take into account the Daylight Savings time. Please take this into account and adjust to your time zone accordingly.

Set manually:
You will need to input the time manually. The top fields are for the dates and the lower fields are for the time.

SECURITY

Time and Date –

The system of your IP camera provides you two methods of time configuration: Automatic or Manual:

For automatic method, check the **Synchronize NTP Server** checkbox first, and then enter the IP address or domain name of the time server. Leaving the box blank will connect the camera to default time servers.

For manual method, check the **Set Manually**. It will allow you to manually set the time by specifying a specific date [yyyy-mm-dd] and time [hh:mm:ss]. Otherwise, you may synchronize the date and time of the camera with the local computer by checking the **Synchronized with Computer Time** box.

MAINTENANCE

MAINTENANCE > Device Management

To ensure the highest security and prevent unauthorized usage of your IP camera, the Administrator has the exclusive privilege to authorize all users. The DCS-900 supports multi-level password protection/access that can be restricted by the Administrator for defined users who have a User Name and User Password. The Administrator can release a public User Name and Password so that when remote users access the DCS-900 they will be allowed to view the images transmitted by the DCS-900.

Product: DCS-900 Firmware Version: 4.00

D-Link

DCS-900 // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

Device Management **DEVICE MANAGEMENT** Helpful Hints..
Backup and Restore Please set the system configuration as necessary. **System Device:**
Firmware Upgrade In this field, you can configure the basic information of your device.

PASSWORD SETTING

Admin : Admin ID :
Admin Password :
Confirm Password :

SYSTEM SETTING

Camera Name : DCS-900 [C35171]
Location :
LED Control : Normal OFF Dummy
User Access Control : Enable Disable

DEFINE USERS

Add User : User Name :
User Password :
Delete User :
User List :

SECURITY

Password Setting –

- **Admin:** Allow you to specify and save the Administrator's ID name and password.

System Setting –

- **Camera Name:** Allow you to specify a name for your IP camera.
- **Location:** Enter information of where your camera is located.
- **LED Control:** You can set the LED of the DCS-900 to on (Normal), off (OFF), or blink randomly (Dummy).
- **User Access Control:** Allow you to enable or disable user access control.

Define Users –

- **Add User:** This will enable you to add users. You must click Add each time you add a user to the User List.
- **Delete User:** Select a user from the pull-down list and click the Delete button to remove the user from the list.
- **User List:** This list shows all of the users added.

MAINTENANCE > Backup and Restore

The **Backup and Restore** option not only allows you to save the current configuration in a computer for backup by clicking **Save** button, but also allows you to reload a configuration that you saved before by clicking **Browse** to direct to the backup file, and then clicking **Update Settings** button for reloading with rebooting the device. Beside, you are also allowed to return your IP camera to the default settings by clicking **Restore Device** button, and restart the camera by clicking **Restart Device** button.

The screenshot displays the D-Link web interface for a DCS-900 camera. At the top, it shows 'Product: DCS-900' and 'Firmware Version: 4.00'. The D-Link logo is prominently displayed. Below the logo is a navigation menu with tabs for 'DCS-900', 'LIVE VIDEO', 'SETUP', 'MAINTENANCE', 'STATUS', and 'HELP'. The 'MAINTENANCE' tab is selected, and the 'Backup and Restore' sub-tab is active. The main content area is titled 'BACKUP AND RESTORE' and contains a sub-section 'SAVE/RESTORE CONFIGURATION'. This section includes four rows of controls: 'Save Settings to Local Hard Drive' with a 'Save' button; 'Load Settings From Local Hard Drive' with a text input field, a 'Browse...' button, and an 'Update Settings' button; 'Restore To Factory Default Settings' with a 'Restore Device' button; and 'Restart The Camera' with a 'Restart Device' button. On the right side, there is a 'Helpful Hints..' section with sub-sections 'Save/Restore Settings:' and 'Update Settings:'. The 'Save/Restore Settings:' hint explains that clicking 'Save' backs up the current configuration to a file on a computer. The 'Update Settings:' hint explains that clicking 'Browse' points to a backup file, which is then reloaded by clicking 'Update Settings'. At the bottom of the interface, a 'SECURITY' tab is visible.

MAINTENANCE > Firmware Update

The **Firmware Update** option displays you the current firmware's information of your IP camera, and also allows you to upgrade the firmware of the IP camera when a new version of firmware is available.

First, check the D-Link support site for firmware updates at <http://support.dlink.com>. Make sure that the firmware you want to use is saved on the local hard drive of your computer. Click on Browse to search the local hard drive for the firmware that you downloaded from the D-Link Website (support.dlink.com) to be used for the update. Upgrading the firmware will not change any of your system settings but it is recommended that you save your system settings before doing a firmware upgrade.

Product: DCS-900 Firmware Version: 4.00

D-Link

DCS-900 // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

Device Management
Backup and Restore
Firmware Upgrade

UPGRADE

A new firmware upgrade may be available for your camera. It is recommended to keep your camera firmware up-to-date to maintain and improve the functionality and performance of your internet camera. Click here support.dlink.com to check for the latest firmware version available.

To upgrade the firmware on your IP camera, please download and save the latest firmware version from D-Link Support Page to your local hard drive by clicking the browse button. Once you have found and opened the file using the browse button, click the "Apply" button to start the firmware upgrade.

UPGRADE

Current Firmware Version and Date: 4.00 (2007-10-22)

Firmware Upgrade

Select A Firmware File : Browse...

Apply Cancel

Helpful Hints..

Upgrade:
When a new version of firmware is available (e.g. downloading from the manufacturer's website), you can upgrade the firmware of your device. Click **Browse** to point to the firmware file, and then click **Apply**.

SECURITY

STATUS

The Status section provides the detail information about your IP camera.

STATUS> Device Info

The **Device Info** option lists the following important settings that are currently set for your DCS-900, including detail information about Device Status, Ethernet Status, Video Status, Network Status, and Active Users.

Product: DCS-900 Firmware Version: 4.00

D-Link

DCS-900 // LIVE VIDEO SETUP MAINTENANCE STATUS HELP

Device Info

DEVICE INFO

All of your network connection details are displayed on this page. The firmware version is also displayed here.

DEVICE STATUS

Camera Name	: DCS-900 [C35171]
Location	:
Model	: DCS-900
Firmware Version	: 4.00 (2007-10-22)
MAC Address	: 00 17 9A C3 51 71
IP Address	: 192.168.0.111

ETHERNET STATUS

Link	: Yes
Speed	: 100M bps
Duplex	: Full Duplex

VIDEO STATUS

Video Resolution	: 320 X 240
Compression Rate	: Medium
Frame Rate	: Auto
Frame Size	: 10190 Bytes
Light Frequency	: 60 Hz

NETWORK STATUS

IP Address	: 192.168.0.111
Subnet Mask	: 255.255.255.0
Default Gateway	: 192.168.0.1
DNS Address 1	: 168.95.1.1
DNS Address 2	: 168.95.192.1
Dynamic DNS	: Disable
Secondary HTTP Port	: Disable (Port : 81)
UPnP	: Enable (IP : 169.254.81.113)
FTP Server Test	: No test conducted
E-mail Test	: No test conducted

ACTIVE USERS

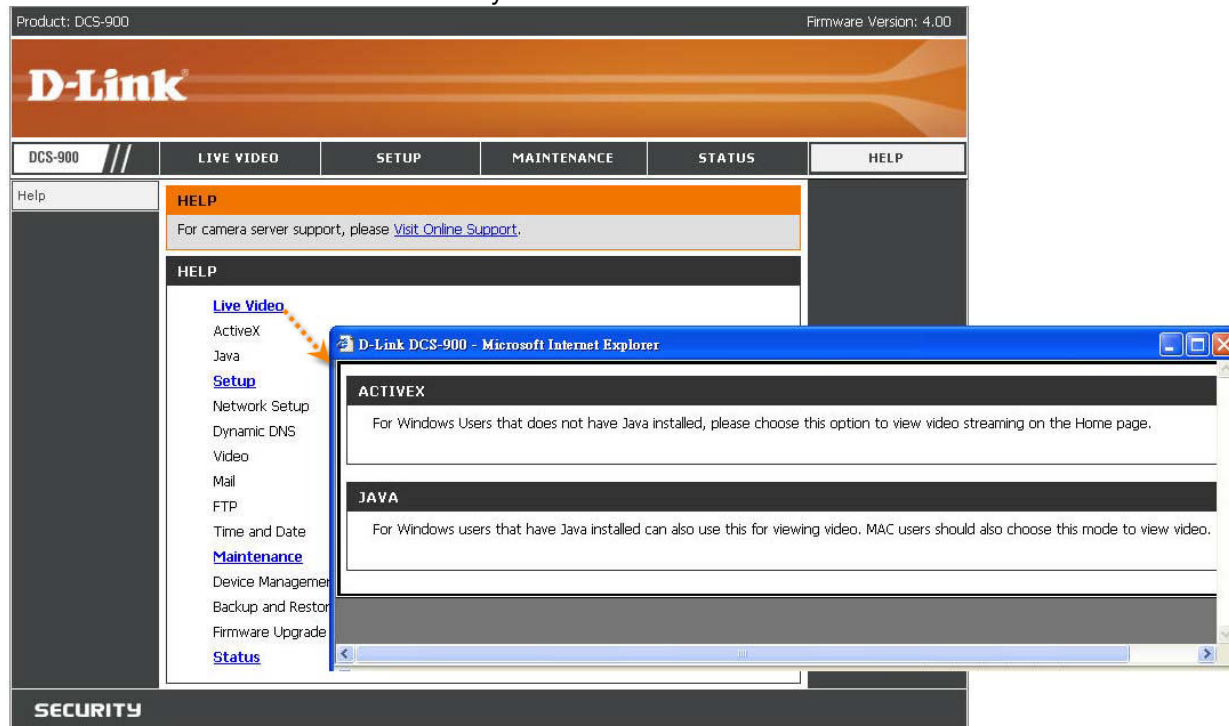
IP Address	Name	DateTime	Milliseconds / Packet
------------	------	----------	-----------------------

Refresh

SECURITY

HELP

The **Help** screen provides you brief information about the DCS-900 for your reference.



Installing the DCS-900 Behind a Router

Assigning and Opening the HTTP Port on the DCS-900

(For Installing Multiple Cameras)

Opening ports will allow users to view the camera via the Internet. The ports that are opened must be unique for each camera in order to successfully view the images remotely.

1) Open the HTTP Port

The HTTP Port option is used when multiple cameras are being installed behind a single public IP address and will be accessed remotely OR for using a port other than the default port for image viewing. For each additional camera that is installed, you must assign the appropriate Web server port for each camera to enable remote viewing.

By default, port 80 (Web server port) is open. If these ports are available for use, you DO NOT have to open a second port and can proceed to the next section. If port 80 is not available (for example, if you are already using port 80 to run a Web server or your ISP blocks access on port 80*) you MUST open a second port and designate a new Web server port (800, 801, 802, ...etc).

IMPORTANT: Be sure to take note of these settings since these same settings will be used to configure your router.

Second HTTP Port : Enable Disable
Port Number : 81

Second HTTP Port : Enable Disable
Port Number : 81

UPnP : Enable Disable

Save Settings Don't Save Settings


SECURITY

NOTE: Some ISPs block traffic on commonly used ports like port 80 to prevent consumers from putting a server on their network. Be sure to check with your ISP so that you can open the appropriate ports accordingly. If your ISP does not pass traffic on port 80, you will need to change the Web server port the camera uses from 80 to something else, like 800. If you are behind a router, you will need to open a corresponding port on your router as well. Not all routers are the same, please refer to your router's user's manual for specific instructions on how to forward ports.

Router Setup and Installation

The following steps generally apply to any router that you have on your network. The D-Link DIR-300 is used as an example to clarify the configuration process. Your WAN IP Address information will be listed on following window.

Product Page : DIR-300 Firmware Version : 1.02



DIR-300	SETUP	ADVANCED	MAINTENANCE	STATUS	HELP
<p>Device Info</p> <p>Log</p> <p>Statistics</p> <p>Active Session</p> <p>Wireless</p> <p>Logout</p> <p>Internet Offline</p> <p>Reboot</p>	<p>DEVICE INFORMATION</p> <p>All of your Internet and network connection details are displayed on this page. The firmware version is also displayed here.</p> <p>Firmware Version : 1.02 , Thu 04 Oct 2007</p> <p>LAN</p> <p>MAC Address : 00:19:5b:9c:ac:65 IP Address : 192.168.0.1 Subnet Mask : 255.255.255.0 DHCP Server : Enabled</p> <p>INTERNET</p> <p>MAC Address : 00:19:5b:9c:ac:66 Connection : Static IP IP Address : 61.222.67.100 Subnet Mask : 255.255.255.128 Default Gateway : 61.222.67.1 DNS : 168.95.1.1 168.95.192.1</p> <p>WIRELESS 802.11G</p> <p>SSID : DIR-300 test Channel : 3 Encryption : 64 bits</p>				<p>Helpful Hints..</p> <ul style="list-style-type: none">All of your LAN, Internet and WIRELESS 802.11G connection details are displayed here.

WIRELESS

NOTE: Because a dynamic WAN IP address can change from time to time depending on your ISP, you may want to obtain a Static IP address from your ISP. A Static IP address is a fixed IP address that will not change over time and will be more convenient for you to use to access your camera from a remote location.

Assigning and Opening Virtual Server Ports

2) Open Virtual Server Ports To Enable Remote Image Viewing

The Virtual Server Ports of your router must be opened for remote access to your camera. This is also referred to as port forwarding. Please proceed as follows:

- Select **Enabled** to enable virtual server settings.
- Select a camera name.
- Enter your camera's Local IP Address in the **Private IP** field.
- Select **TCP** under **Protocol Type**.
- If you are using the default camera port settings, enter **80** in to the Public and Private Port section.
- **Schedule** should be set to **Always** so that the camera images can be accessed at any time.
- In the **Virtual Servers List**, a check mark appearing before the camera name will indicate that the ports are enabled.
- Click **Apply** to save your settings.

NOTE: If you are installing multiple cameras, be sure to open ONE Web port per additional camera installed: port 81, 82, etc. for Web server.

Product Page : DIR-300 Firmware Version : 1.02

D-Link

DIR-300 // SETUP ADVANCED MAINTENANCE STATUS HELP

Port Forwarding

Application Rules

Access Control

Firewall & DMZ

Advanced Wireless

Advanced Network

Routing

Smart QoS

Logout

Internet Offline

Reboot

ADVANCED PORT FORWARDING RULES

The Advanced Port Forwarding option allow you to define a single public port on your router for redirection to an internal LAN IP Address and Private LAN port if required. This feature is useful for hosting online service such as FTP or Web Servers.

Save Settings Don't Save Settings

25 - ADVANCED PORT FORWARDING RULES

Remaining number of rules that can be created: 24

	Name	Application Name	Public Port	Private Port	Traffic Type
<input checked="" type="checkbox"/>	HTTP	Application Name	80 ~ 80	80 ~ 80	TCP
	IP Address	Computer Name			
	192.168.0.100				
<input checked="" type="checkbox"/>	DCS-950G Web	Application Name	8080 ~ 8080	8080 ~	Any
	IP Address	Computer Name			
	192.168.0.101				
<input checked="" type="checkbox"/>	DCS950G-AV Contro	Application Name	5000 ~ 5000		Any
	IP Address	Application Name			
	DCS950G-AV Stream	Application Name	5001 ~ 5001		Any
	IP Address	Computer Name			
	192.168.1.101				
<input type="checkbox"/>		Application Name			Any
	IP Address	Computer Name			


Helpful Hints..

- Check the **Application Name** drop down menu for a list of pre-defined applications that you can select from. If you select one of the pre-defined applications, click the arrow button next to the drop down menu to fill out the appropriate fields.
- You can select your computer from the list of DHCP clients in the **Computer Name** drop down menu, or enter the IP address manually of the computer you would like to open the specified port to.
- This feature allows you to open a range of ports to a computer on your network. To do so, enter the first port in the range you would like to open on the router in the first box under **Public Port** and last port of the range in the second one. After that you enter the first port in the range that the internal the second.
- To open a single port using this feature, simply enter the same number in both boxes.

Viewing Your Camera

After all settings have been entered correctly, a user inside or outside your network will have access to the camera through a standard Web browser. To access from the Internet, simply type in the IP Address of the router given to you by your ISP, a colon, and the port number that you gave your camera. (e.g. <http://205.163.122.96:83>). To access from a computer on your local (home) network, simply enter the local IP Address of your camera (e.g. 192.168.0.35). If using a port other than port 80, you must enter the IP address followed by a colon and the assigned port number.

Product: DCS-900 Firmware Version: 4.00



DCS-900	LIVE VIDEO	SETUP	MAINTENANCE	STATUS	HELP
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Camera

CAMERA


This section shows your IP camera's live video. You can control your settings using buttons below.
Current resolution is 320 X 240.

FUNCTION

ActiveX Java

LIVE VIDEO

DCS-900 [C35171] 2007-10-23 17:24:56



SECURITY

IPView SE Application Installation

Click **IPView SE** of the Installation CD.



IPView SE software is included for administrators to manage up to 4 DCS-900s remotely. Administrators can also record to hard drive and configure advanced settings for the DCS-900. IPView SE is a complete software management tool for the DCS-900 and includes all configurable settings available in the web configuration utility.

Click **Next**.



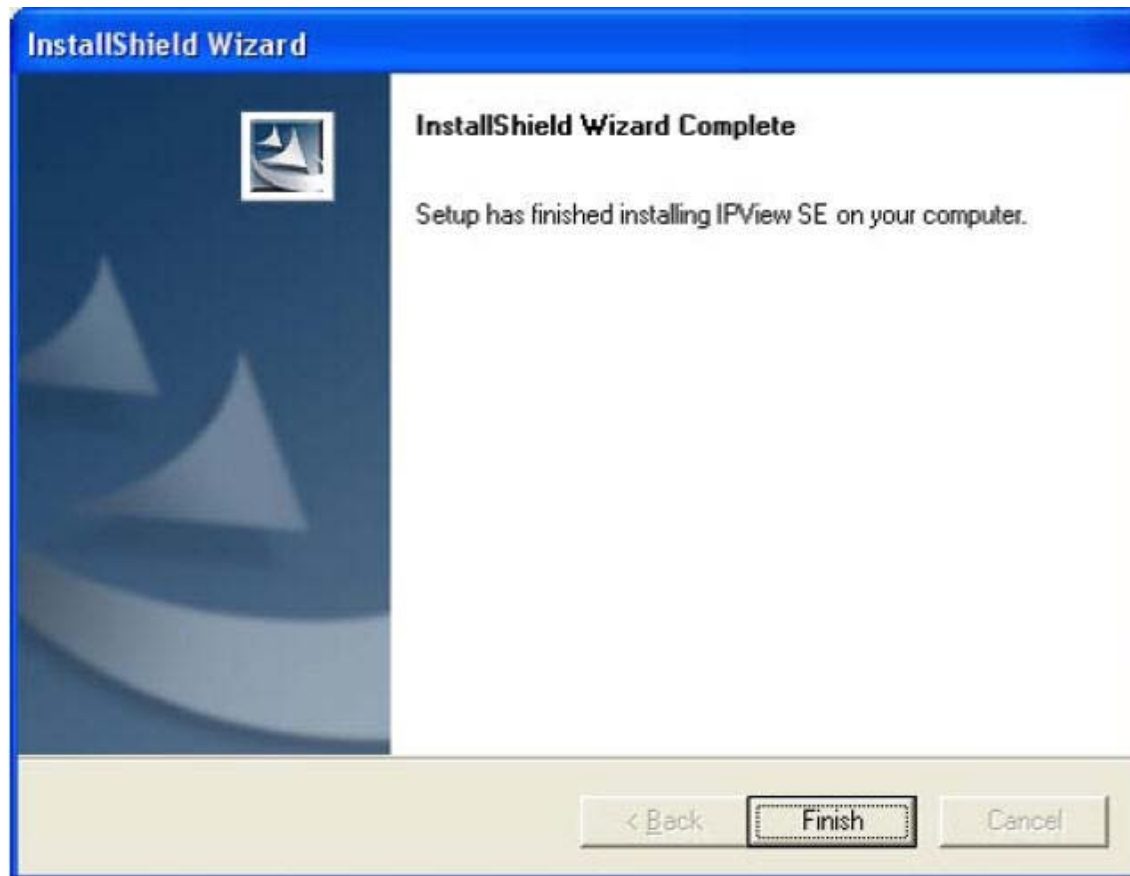
Click **Yes**.



Click **Next**.



Click **Finish**.



After successfully installing the IPView SE, the application program for the DCS-900 is automatically installed to \Programs\IPView SE Directory. To start running the IPView SE click on **Start→ Programs→ IPView SE→ IPView SE.** Once the IPView SE application control panel is executed, the interface will appear.




























IPView SE

This section describes the operation of the IPView SE application user interface with detailed procedures for using the application. IPView SE allows you to manage your cameras by enabling you to search, configure, and preview all the DCS-900s from one location. It is designed with a user-friendly interface for ease of control and navigation.



IPView SE Icon Description

-  System Configure
-  Connect/Disconnect
-  Assign IP to a Camera
-  Liberate Camera
-  Camera's Extra Information
-  Configure Camera from Web
-  Motion Setting
-  Manual Recording
-  Schedule Recording
-  Motion Recording
-  Scan
-  Combine
-  Play
-  Help/About
-  Minimize
-  Close
-  Rotate
-  Snapshot

-  View/List
-  Zoom
-  Maximize
-  Color Setting
-  Always on Top
-  Wake Up Control Panel
-  Upgrade Firmware

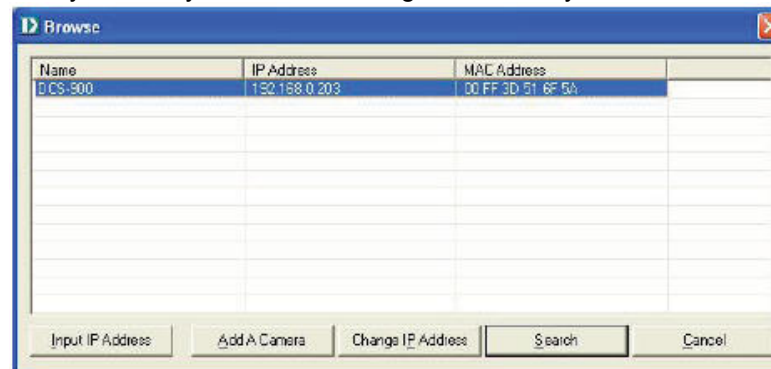
How to Add a New Camera

To add a new camera, select the **Camera** button from the IPView SE. Make sure that the green lights are on when clicking the camera button.

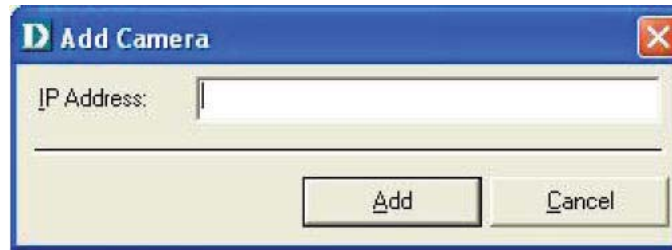
A green light under the camera button means that there is already a camera connected.



Select the camera you would like to connect to and click **Add A Camera**. If the camera is not listed in this list, click the **Input IP Address** button. Enter the IP Address of the camera in the specified field and click **Add**. If the IP Address is entered incorrectly or if you have a bad network connection, a dialog box will appear to notify you of the error. To add cameras in IPView SE, check that you have your network configured correctly. To add a remote camera, you need to have Internet access.



If you are unsure of the IP Address of the camera, you can click on **Search** to search for all available cameras that are installed on your local area network.



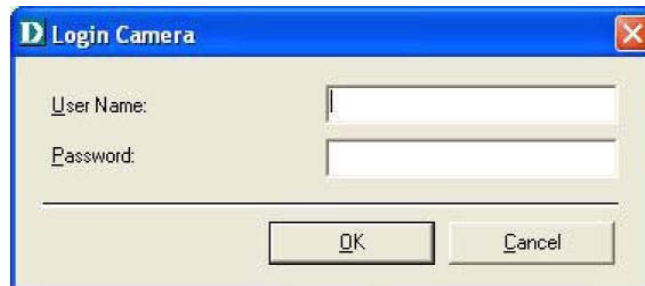
NOTE: Only cameras on your local area network can be located using Search in IPView SE. If you want to add a camera via the Internet, you must enter in a public IP Address. Please note that if your camera is behind a router, you will need to enter your router's WAN IP followed by a colon, then the port number that is assigned to your camera. As in example 10.10.10.80:800, where 10.10.10.80 is your router's WAN IP and :800 is the port that your camera is using.

Highlight the camera you wish to add and click on **Add**. The camera will automatically be added into the IPView SE list view. If you add the same camera more than once you will receive the following message (see below).




If the **Login Camera** dialog box appears, make sure to enter the correct **User Name** and **Password**. Click **OK**. The camera will be added into IPView SE. If the **User Name** and **Password** are entered incorrectly, the camera will not be added into IPView SE.

The Login Camera dialog box will appear only if you have already set the **Username** and **Password** during the Web Configuration setting.



How to Delete a Camera

Click the **Liberate Camera** button  on the IPView SE, while you are connected to the camera you would like deleted. The IPView SE camera button becomes available as soon as you click on the **Liberate Camera** button. The green light from under the camera button will become grey.

Before the camera is liberated you will be given the choice to confirm your request to remove the camera.

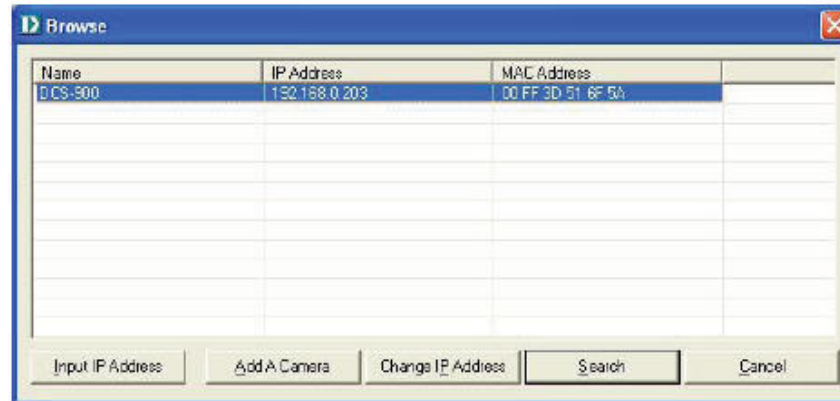


A grey light under the camera button means that this channel is available to add a camera.

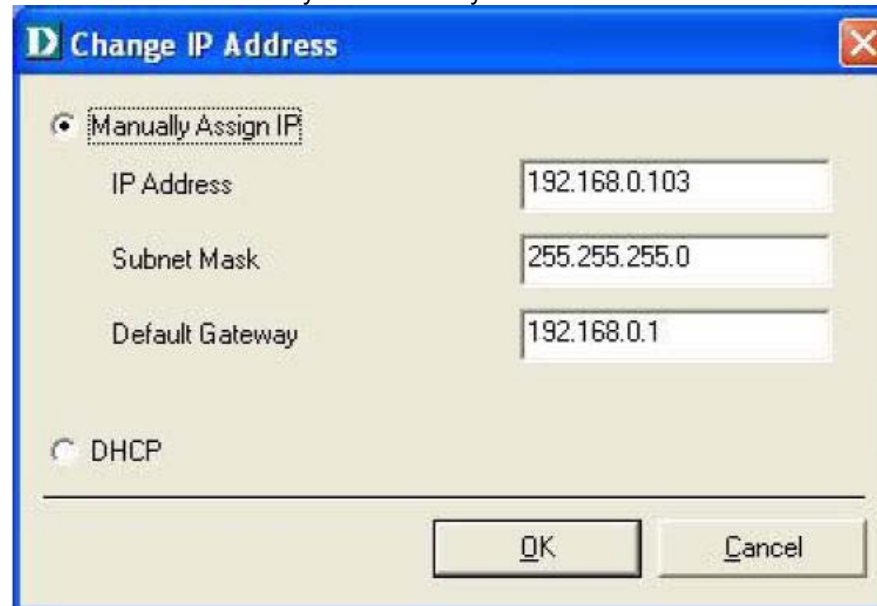


How to Change the IP Address


To change a camera's IP Address, you must highlight the camera you wish to change. Click the **Change IP Address** button and the Change IP Address dialog box will appear. Select Manually Assign IP if you want to connect manually to the camera by providing the IP Address, Subnet Mask, and Default Gateway. Select DHCP if you do not wish to assign an IP address to your camera.



You may also click the Assign IP to a Camera button on the IPView SE, which will bring up the Browse screen from above. Simply click the Change IP Address button and the Change IP Address dialog box will appear. Select Manually Assign IP if you want to connect manually to the camera by providing the IP Address, Subnet Mask, and Default Gateway. Select DHCP if you would like to connect to only cameras on your network.



How to Format the Camera View

Select the **Combine** button  on the IPView SE and you should see all four cameras combined (see image below).




A maximum of 4 cameras can be viewed simultaneously with IPView SE.




Select any of the four cameras for the View Mode format. If there is a green light next to the camera button that means that the IPView SE has a camera connected.

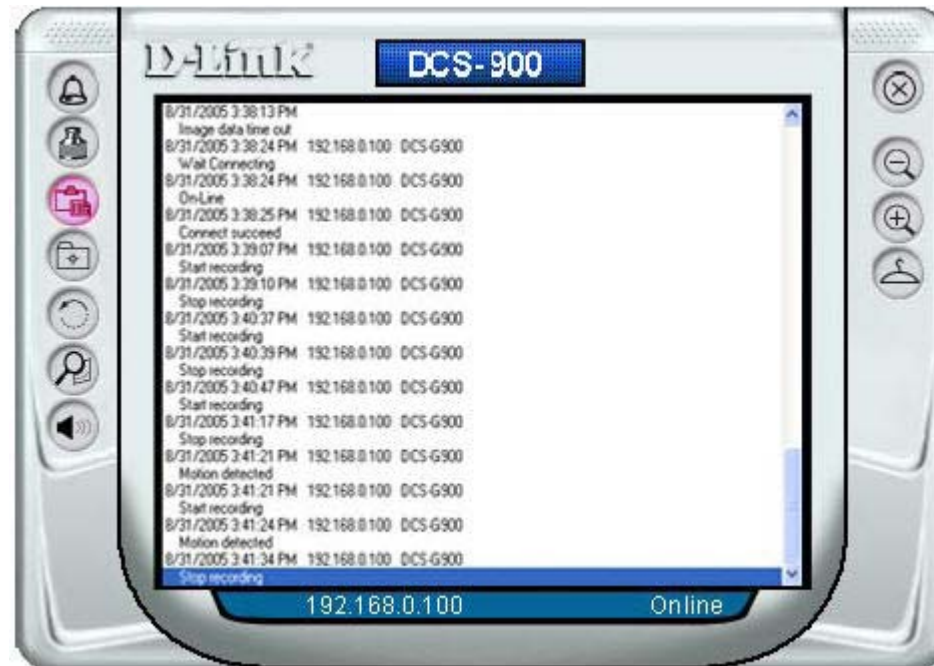
How to Rotate the View

In View Mode format, click on the **Rotate** button  and the image should rotate 90° to the left (see image below).




View/List


Click the **View/List** button . All the cameras and their properties, such as the camera name IP Address, user name, and functional information, will be displayed in the View/List screen.



Zoom

Click the **Zoom** button  to zoom in on the camera image. The options under zoom are Fit Window x1, x1.5, x2, x2.5, x3, x3.5, and x4.

Color Setting


Click the **Color Setting** button  to adjust the Brightness, Contrast, and Hue.




Wake Up Control Panel

Click the **Wake Up Control Panel** button  to open the control panel again when it is closed.

Always on Top

Click the **Always on Top** button  to have the display screen always appear on top.

Close

Click the **Close** button  to close the display screen of the camera.

How to take a Snap-Shot with the Camera

In View Mode format select the **Snapshot** button



located on the upper left corner of the screen. A Save Image dialog box will appear for you to save the snapshot picture.




How to Start Recording

To start recording with a camera, click the **Manual Recording** button . An AVI file will appear in your IPView SE folder.

NOTE: You must stop recording before changing any camera settings.




How to Stop Recording

To stop recording with a camera, click the **Manual Recording** button  again.


Camera Settings

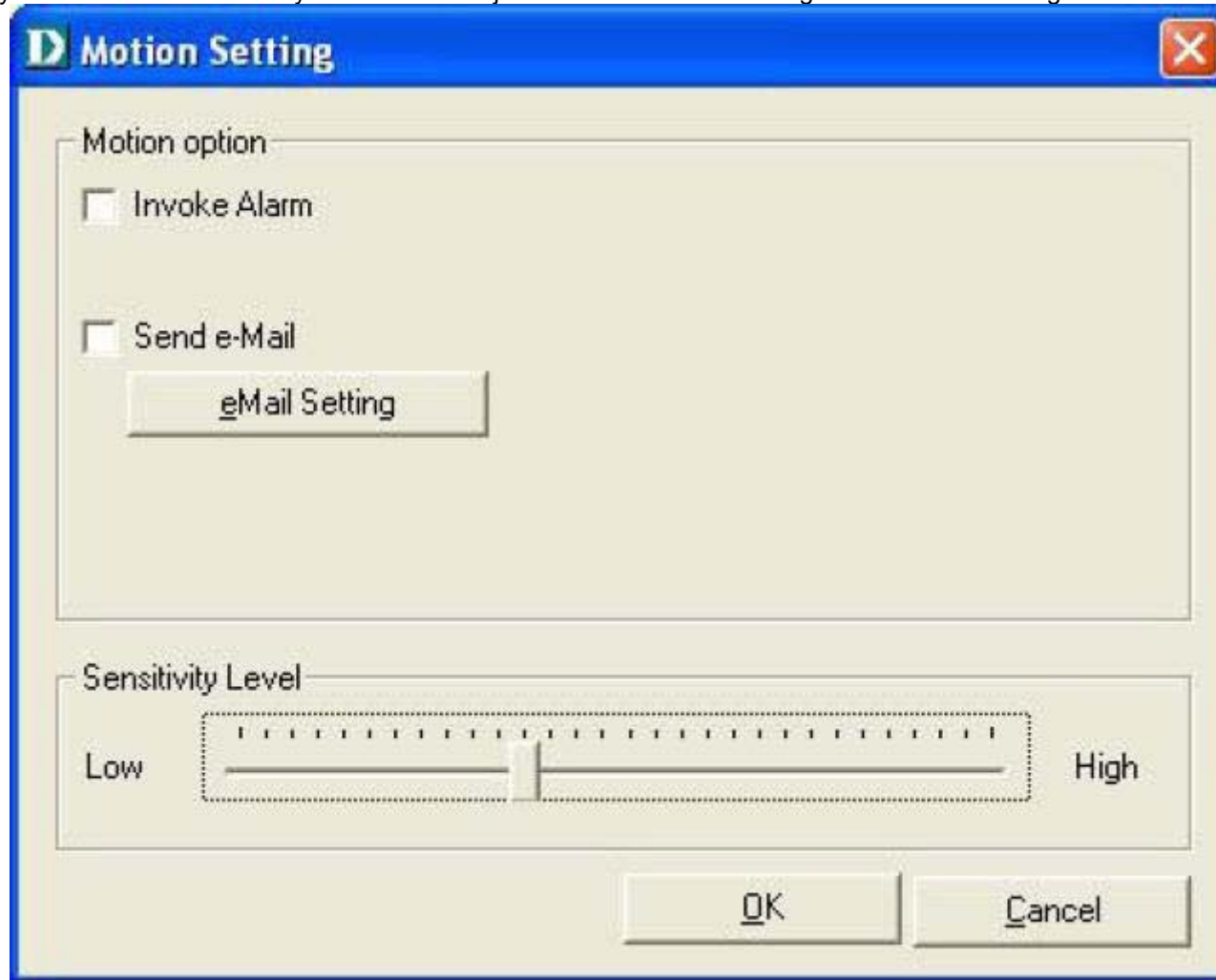
Once you have completed the initial configuration of the DCS-900 using the Web-based interface, you can review or change your configuration using either the Web-based configuration utility or the Settings in the DCS-900 IPView SE.

Configure Camera from Web

Click the **Configure Camera from Web** button  to start configuring your camera from the web again (see page 24).


Motion Setting

Click the **Motion Setting** button  to setup the options for motion recording. On this screen you can select to Invoke Alarm and/or Sent E-mail. Click the E-mail Setting button to configure your E-mail. The Sensitivity Level can be adjusted between Low and High for motion recording.




The image shows a Windows-style dialog box titled "Motion Setting". The dialog has a blue title bar with a close button (X) in the top right corner. The main content area is divided into two sections. The top section, titled "Motion option", contains two unchecked checkboxes: "Invoke Alarm" and "Send e-Mail". Below the "Send e-Mail" checkbox is a button labeled "eMail Setting". The bottom section, titled "Sensitivity Level", features a horizontal slider control. The slider is labeled "Low" on the left and "High" on the right. The slider bar has a dotted border and a vertical indicator showing the current sensitivity level, which is positioned approximately one-third of the way from the left. At the bottom of the dialog are two buttons: "OK" and "Cancel".

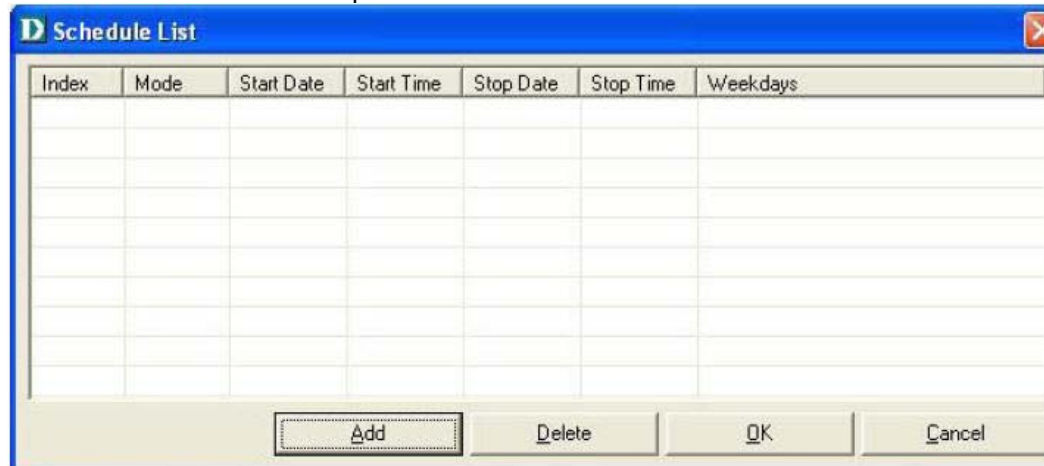
Manual Recording

Click the **Manual Recording** button  to begin recording images from you camera.



Schedule Recording

Click the **Schedule Recording** button  to record based on a specific time and date. Click Add to set the time and date recording.



Select Date Mode and enter in the Start date/time, and Stop date/time. The camera will start to record according to the specified date and time period entered. Select Week Mode to specify which date to record during the time period.



The image shows a dialog box with a blue title bar and a close button (X) in the top right corner. The dialog is divided into two main sections: "Date Mode" and "Week Mode".

Date Mode: This section is selected with a radio button. It contains two rows of input fields. The first row is labeled "Start" and has a date dropdown menu showing "9 /23/2005" and a time text box showing "12:12 PM". The second row is labeled "Stop" and has a date dropdown menu showing "9 /23/2005" and a time text box showing "12:22 PM".

Week Mode: This section is unselected. It contains two rows of time input fields. The first row is labeled "Start" and has a text box showing "12:12 PM". The second row is labeled "Stop" and has a text box showing "12:22 PM". Below these fields are seven buttons representing the days of the week: "Sun", "Mon", "Tue", "Wed", "Thu", "Fri", and "Sat".


At the bottom right of the dialog are two buttons: "OK" and "Cancel".

Motion Recording

Clicking on the **Motion Recording** button  will record images upon motion detection. When this option is selected and the camera detects motion within the range of the viewing window, recording will be triggered. Recording will continue until no motion is detected. Click on the **Motion Setting** button  to set the sensitivity levels for motion recording.



Scan


Click the **Scan** button  to display each camera one by one. When this option is selected the camera(s) will briefly display their images in the View Mode format.

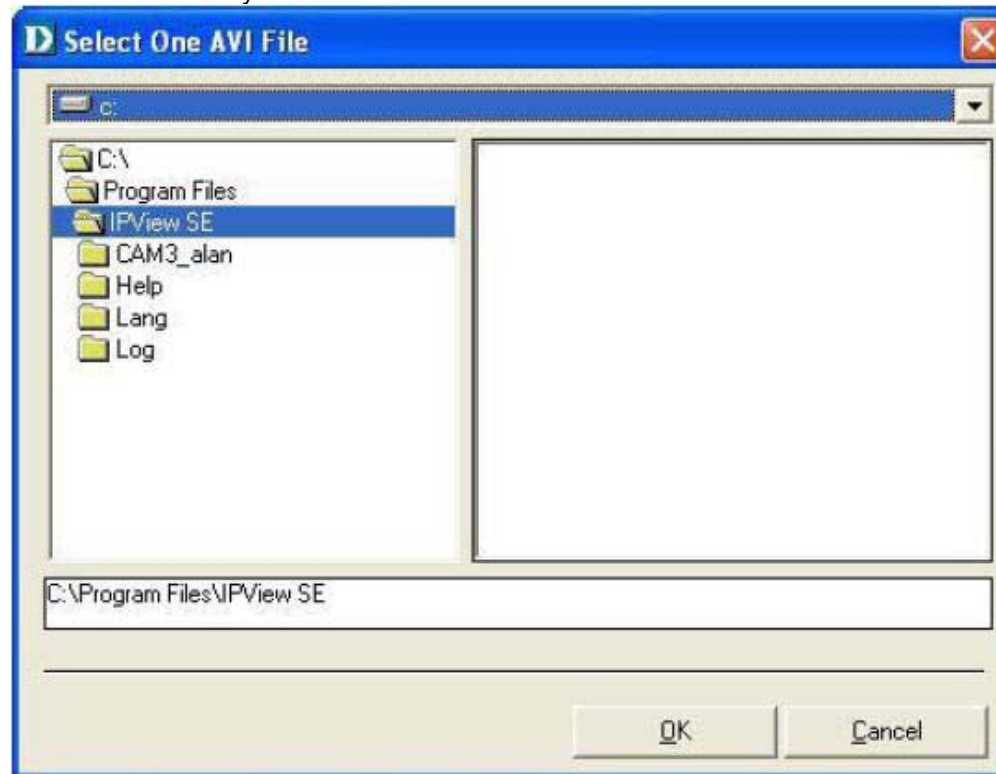
Camera's Extra Information

Click the **Camera's Extra Information** button  to view information about your camera.




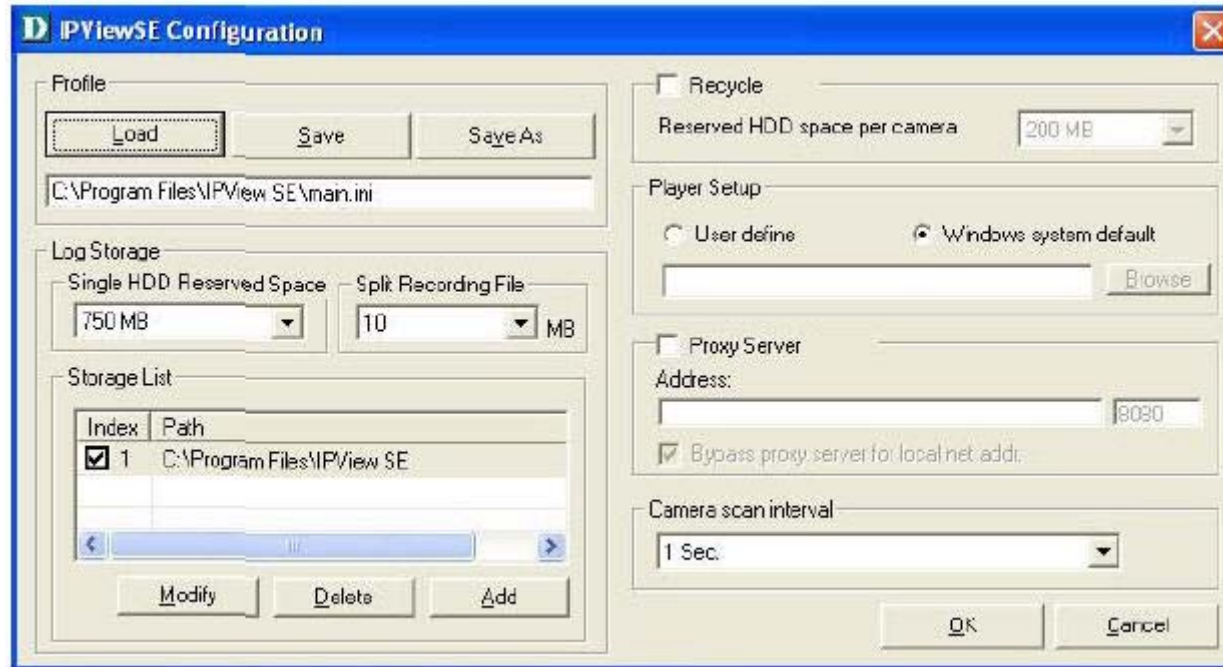
Play

Click the **Play** button  to playback video recorded from your camera.

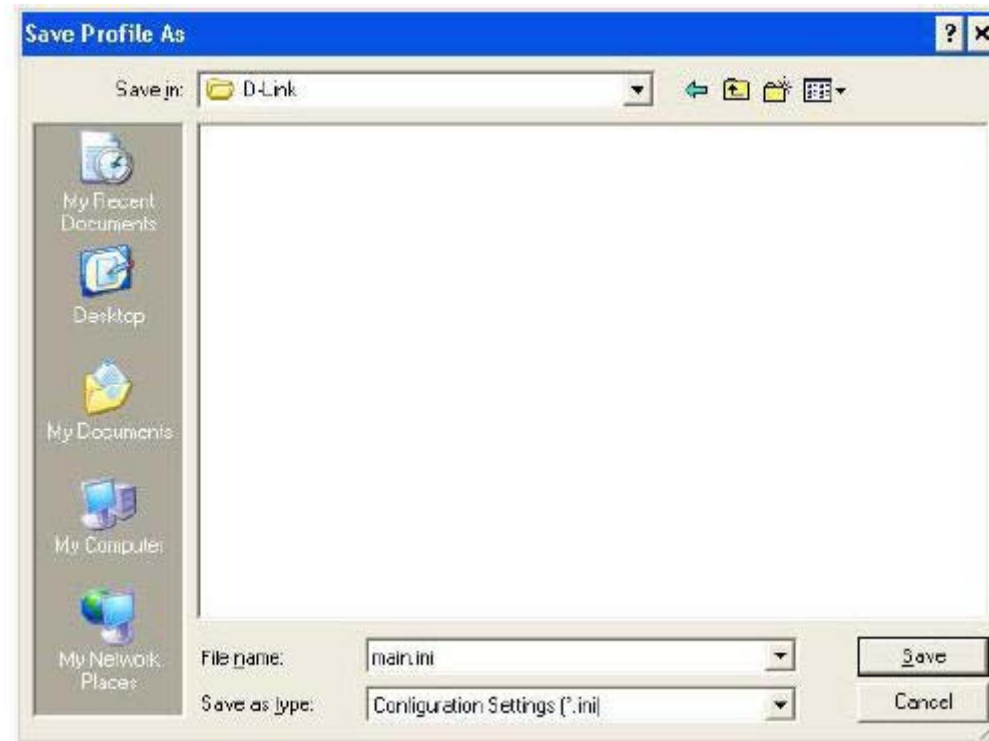


System Configure

Click the **System Configure** button  on the IPView SE.



Profile: The DCS-900 will not have a profile to load initially, you will have to select all of your cameras and then click the Save or Save As buttons to save your profile. Up to four cameras can be saved per configuration, there are no limits as to how many configurations can be saved. Click the Load button to load any of your configurations.

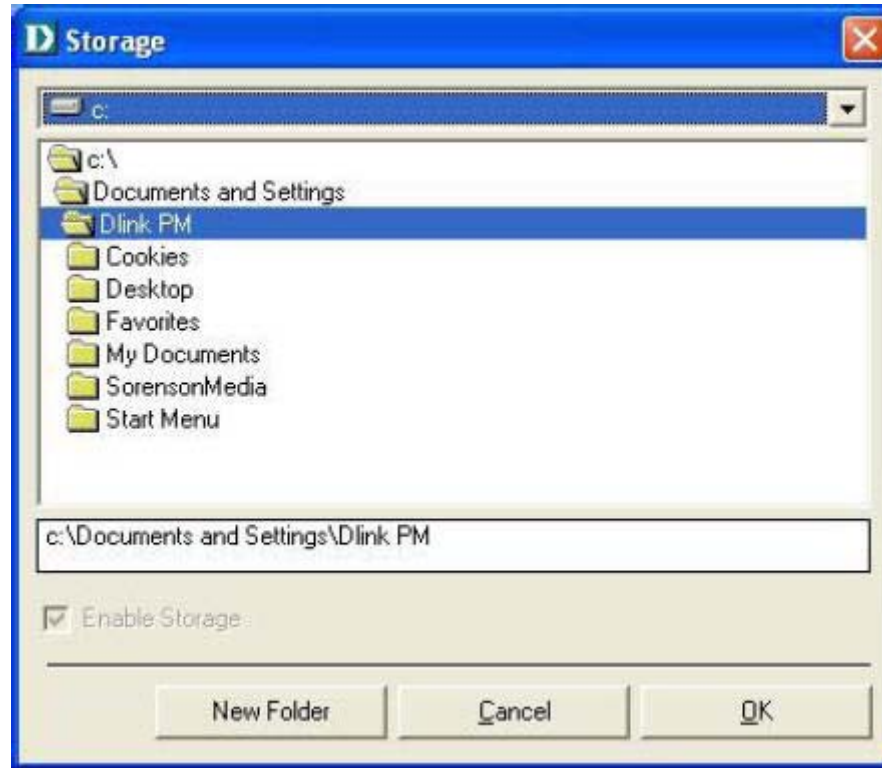


Log Storage: The Single HDD Reserved Space option permits reserved HDD space from 500 MB to 1000 MB.

The Split Recording File option is used to adjust the file size for recording the video images (the default setting is 10MB). If the recorded video files reach the file size, video images will be recorded into another file automatically.

By File Size - permits recording by file size from 10 MB to 50 MB.

Storage List: To add another storage, simply click the Add button. The following Storage dialog box will appear, allowing you to select a drive and to Enable Storage on that drive.



To modify the storage, click the Modify button. You should see the storage dialog box again.

To delete a record of storage, select the path and click the Delete button. If you try to delete the very last storage in the list, you will receive a warning message telling you to keep one record of storage at least.



Recycle: The Reserved HDD space per camera option allows old video files to be overwritten and replaced by new recording files. This field refers to

the amount of space left on your drive before overwrite takes place. For instance if you select 1000 MB and your total hard drive space is 3000MB, as soon as your drive reaches over a 1000 MB capacity your files will be overwritten. You can specify between 300MB to 10GB hard drive reserve space, depending on the free space available on your hard drive.

Note: *Selecting the Recycle option will disable the Recording File Path Settings in the Recording menu.*

Player Setup: In this section you may choose Windows system default or User define for the video player desired for playback of recorded video files. Selecting User define will allow you to Browse for your desired video player.

Proxy Server: Select this option to enable Proxy Server support.

Camera Scan Interval: It allows you to display for each camera one by one. The time interval for each camera can be from 1 Sec. to 20 Sec.

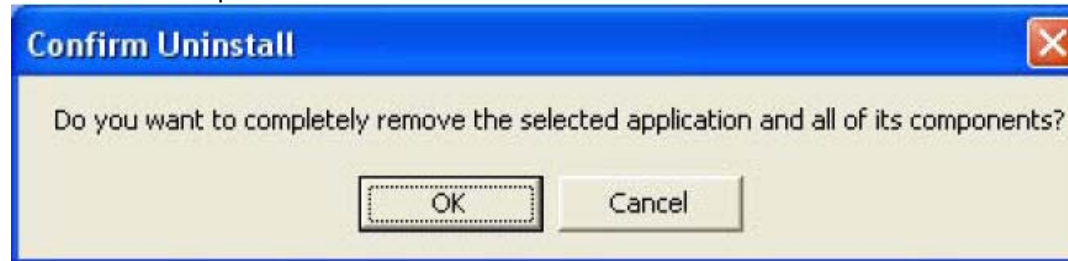
About

Click the **Help/About**  icon, and then select **About** for camera details such as software version.

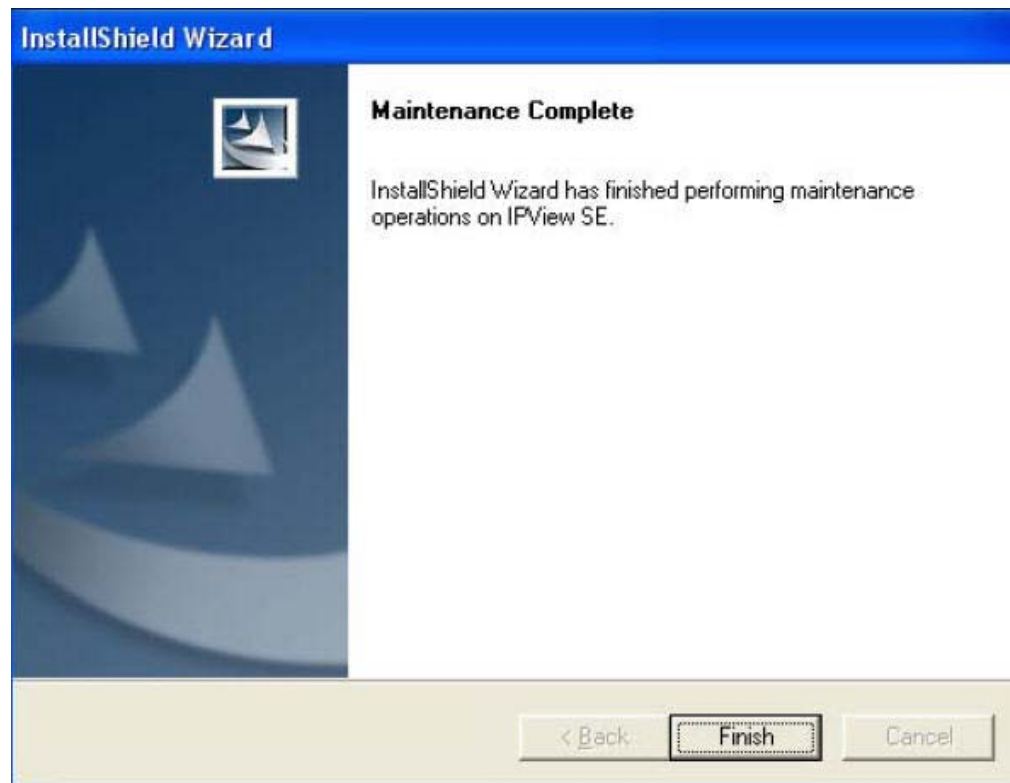


Uninstall IPView SE

Click on **Start Menu**→ **Programs**→ **IPView SE**→ **Uninstall IPView SE**. A new prompt screen will be displayed like the one below confirming the removal. At the Confirm Uninstall dialog box, click **OK** to continue the process.



The **InstallShield** Wizard prompt will appear. Click Finish to complete the uninstallation procedure.



Frequently Asked Questions

Wired Network Camera Features

1 What is an Internet Camera?

The Internet Camera is a standalone system connecting directly to an Ethernet or Fast Ethernet network and supported by the wireless transmission based on the IEEE 802.11g standard. It is different from the conventional PC Camera. The Internet Camera is an all-in-one system with built-in CPU and web-based solutions providing a low cost solution that can transmit high quality video images for monitoring. The Internet Camera can be managed remotely, accessed and controlled from any PC/Notebook over the Intranet or Internet via a Web browser.

2 What is the maximum number of users that can be allowed to access DCS-900 simultaneously?

The maximum number of users that can log onto the Internet Camera at the same time is 8. Please keep in mind the overall performance of the transmission speed will slow down when multiple users are logged on.

3 What algorithm is used to compress the digital image?

The Internet Camera utilizes MPEG-4 Simple Profile image compression technology to provide high quality images. MPEG-4 Simple Profile is a standard for image compression and can be applied to various web browser and application software without the need to install extra software.

4 Can I capture still images from the Internet Camera?

Yes you are able to capture still images with the snapshot function from the IPView SE application supplied with the Internet Camera CD-ROM. You may also record snapshots using the snapshot feature on the Home page. When viewing this page, press the "snapshot" button on your Web browser to capture the image and save to your hard drive.

5 Can the Internet Camera be used outdoors?

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

6 What network cabling is required for the Internet Camera?

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

7 Can the Internet Camera be setup as a PC-cam on the computer?

No, the Internet Camera is used only on Ethernet and Fast Ethernet network or supported by wireless transmission. The D-Link DSB-C110, DSB-C310 can be used as a PC Camera (Webcam).

8 Can the Internet Camera be connected on the network if it consists of only private IP Addresses?

Yes, the Internet Camera can be connected to a LAN with private IP Addresses.

9 Can the Internet Camera be installed if a firewall exists on the network?

If a firewall exists on the network, port 80 is open for ordinary data communication. You will need to do port forwarding by opening a port to the camera. Please refer to your firewall's product manual for detailed instructions.

10 Why can't I access the Internet Camera from a Web browser?

The possible cause might be the IP Address for the Internet Camera is already being used by another device. To correct the possible problem, you need to first disconnect the Internet Camera from the network. Then run the PING utility (follow the instructions in the section titled "PING Your IP Address:"). If there is a reply, it indicates that there is another device on the network with the same IP address. You will need to run the Install Wizard again and change the IP address of the camera.

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 directly to the unit, utilizing a standard Crossover Cable, and run the PING utility. If the problem is not solved, the Internet Camera might be faulty.

Wired Network Camera Installation

11 Why does the Power LED not light up constantly?

The power supply used might be at fault. Confirm that you are using the provided power supply, which is DC 5V, for the Internet Camera and verify that the power supply is well connected.

12 Why does the LAN LED not light up properly?

There might be a problem with the network cable. To confirm that the cables are working, PING the address of a known device on the network. If the cabling is OK and your network is reachable, you should receive a reply similar to the following (···bytes = 32 time = 2 ms).

Another possible problem may be that the network device utilized by the Internet Camera is not functioning properly, such as hubs or switches. Confirm the power for the devices are well connected and functioning properly.

13 Why does the Internet Camera work locally but not externally?

This might be caused by the firewall protection. Check the Internet firewall with your system administrator. The firewall may need to have some settings changed in order for the Internet Camera to be accessible outside your local LAN. Refer to page 47 for more information about installing your camera behind a router.

Make sure that the Internet Camera isn't conflicting with any web server you may have running on your network.

The default router setting might be a possible reason. Check that the configuration of the router settings allows the Internet Camera to be accessed outside your local LAN.

14 Why does a series of broad vertical white lines appear through out the image?

It could be that the CMOS sensor (a square panel situated behind the lens that measures the light signals and changes it into a digital format so your computer can present it into an image that you are familiar with) has become overloaded when it has been exposed to bright lights such as direct exposure to sunlight or halogen lights. Reposition the Internet Camera into a more shaded area immediately as prolonged exposure to bright lights will damage the CMOS sensor.

15 The focus on the Internet Camera is bad, how can I correct it?

Adjust the Internet Camera focus manually as described in the section titled "Adjusting the Camera Focus" on this manual.

16 Noisy images occur. How can I solve the problem?

The video images might be noisy if the Internet Camera is used in a very low light environment. To solve this issue you need more lighting, or click on the Nightshot button on the Home page.

17 The images are poor quality, how can I improve the image quality?

Make sure that your computers display properties are set to at least 6-bit color. Using 16 or 256 colors on your computer will produce dithering artifacts in the image, making the image look as if it is of poor quality.

The configuration on the Internet Camera image display is incorrect. Through the Web Configuration Video section of the web management you need to adjust the image related parameters for improved images such as: brightness, contrast, hue and light frequency. Please refer to the Web Configuration section for detailed information.

18 Why are no images available through the Web browser?

The ActiveX might be disabled. If you are viewing the images from Internet Explorer make sure ActiveX has been enabled in the Internet Options menu. You may also need to change the security settings on your browser to allow the ActiveX plug-in to be installed.

If you are using Internet Explorer with a version number of lower than 5, then you will need to upgrade your Web browser software in order to view the streaming video transmitted by the Internet Camera.

How to Ping Your IP Address

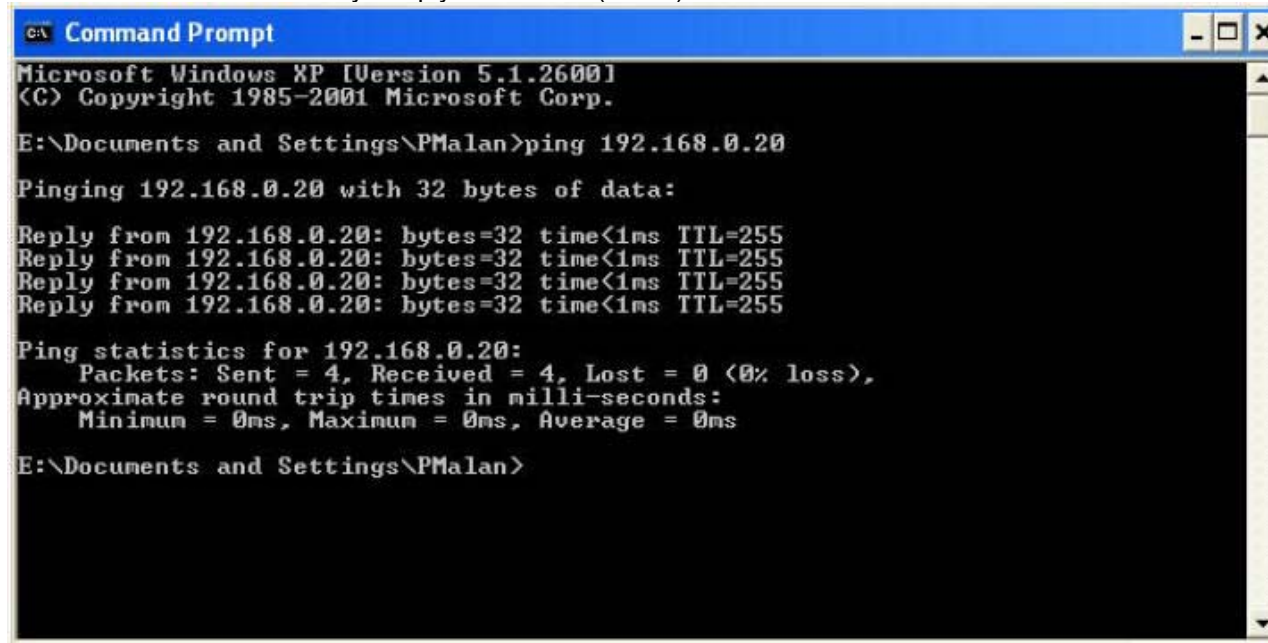
The PING (Packet Internet Groper) command can determine whether a specific IP Address is accessible by sending a packet to the specific address and waiting for a reply. It is a very useful tool to confirm if the IP Address conflicts with the Internet Camera over the network.

Follow the step-by-step procedure below to utilize the PING command.

Start a **DOS** window **Start**→ **Program**→ **Accessories**→ **Command Prompt**.

Type **ping x.x.x.x**, where **x.x.x.x** is the IP Address of the Internet Camera.

A successful connection to the camera will be indicated by 4 reply statements (below).



```
c:\ Command Prompt
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

E:\Documents and Settings\PMalan>ping 192.168.0.20

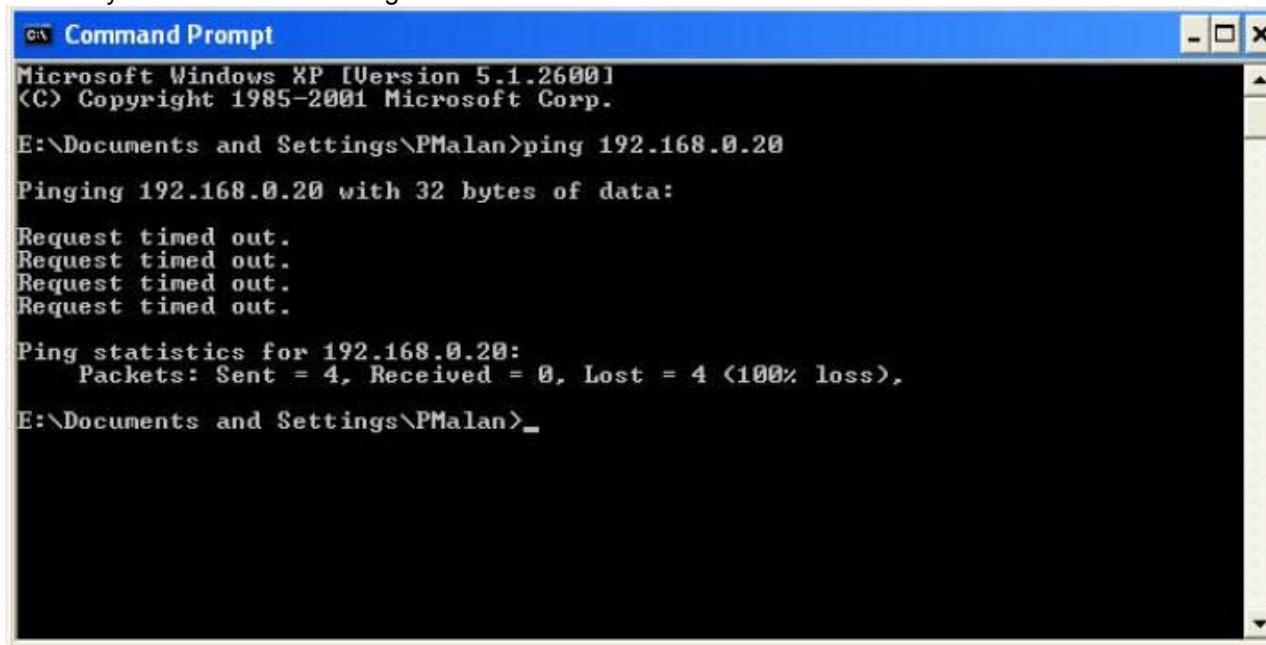
Pinging 192.168.0.20 with 32 bytes of data:

Reply from 192.168.0.20: bytes=32 time<1ms TTL=255
Reply from 192.168.0.20: bytes=32 time<1ms TTL=255
Reply from 192.168.0.20: bytes=32 time<1ms TTL=255
Reply from 192.168.0.20: bytes=32 time<1ms TTL=255

Ping statistics for 192.168.0.20:
    Packets: Sent = 4, Received = 4, Lost = 0 (0% loss),
    Approximate round trip times in milli-seconds:
        Minimum = 0ms, Maximum = 0ms, Average = 0ms

E:\Documents and Settings\PMalan>
```

If you fail to connect to your camera you will see the following:

A screenshot of a Windows Command Prompt window. The title bar reads "Command Prompt". The text inside the window shows the following output:

```
Microsoft Windows XP [Version 5.1.2600]
(C) Copyright 1985-2001 Microsoft Corp.

E:\Documents and Settings\PMalan>ping 192.168.0.20

Pinging 192.168.0.20 with 32 bytes of data:

Request timed out.
Request timed out.
Request timed out.
Request timed out.

Ping statistics for 192.168.0.20:
    Packets: Sent = 4, Received = 0, Lost = 4 (100% loss),

E:\Documents and Settings\PMalan>_
```

Check to see if you have entered your camera's IP Address correctly or reassign your camera's IP Address.

Adjusting the Camera Focus

To help you get the best image quality, keep in mind that while adjusting the DCS-900 focus you can preview the image quality from your Web browser.

Camera Lens

Adjust by turning clockwise or counter-clockwise.



NOTE: You can further adjust the Internet Camera's image quality through the Web Configuration under SETUP > Video. Please refer to the Web Configuration section for further details.

Warning: Direct exposure to sunlight may cause permanent damage to the CMOS sensor. Therefore do not expose the Internet Camera's lens directly to sunlight.
The Internet Camera is designed for indoor usage and if your application requires prolonged exposure to sunlight, a sun visor is recommended to protect the Internet Camera.

Technical Specifications

Network

- TCP/IP (DHCP or Static IP Address)
- Wired LAN: 10/100Mbps

Web Access Requirements

- Any Java-Enabled or ActiveX compatible Web Browser, . i.e. current versions of Microsoft Internet Explorer or Netscape Navigator .

Media Streaming Protocol

- HTTP

Video Specification

- Resolution: 640 x 480
- Sensor: 1/4" color CMOS sensor
- Gain Control: 56dB
- Exposure: Automatic
- White Balance: Automatic
- Shutter: Electronics 1/60 ~ 1/15,000 sec
- Minimum Illumination: 2.5lux@F1.4
- Focal Length: 6.0mm
- Aperture: F=1.8

Image (Video Setting)

- Motion-JPEG compression
- Frame rate: 1, 5, 7, 15, 20, 30 frames per second (fps), and Auto
- Compression Rate Selection: 5 level (Very Low, Low, Medium, High, Very High)
- Video Resolution: 160x120, 320x240, 640x480

Web Configuration Requirements

- Internet Explorer 5.0 or above or Netscape 6.0 or above
- 266 MHz processor
- 32MB memory (64MB recommended)
- VGA Card Resolution: 800 x 600 or above

Dimensions

- H x W x L: 5.31" x 2.59" x 2.59"

PC System Requirements

- Windows 2000/XP/Vista
- 1.3 GHz processor
- 128MB memory
- 20GB available hard disk space
- CD-ROM drive

Power Source:

- 5V, 2.5A

Power Consumption

- 5W

Environmental specification

- Operating temperature: 5° C to 50° C
- Storage temperature: -25° C to 50° C
- Operating relative humidity: 5% to 95% non-condensing