D-Link®

Manual

Version 2.0

DCS-900

Fast Ethernet Internet Camera

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Package Contents

- D-Link DCS-900 Fast Ethernet Internet 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 rating than the one included with the DCS-900 will cause damage and void the warranty for this product.

System Requirements

- PC with 1.3GHz processor, 128MB RAM and 20MB of available hard disk space.
- Windows® XP/2000
- A CD-ROM drive
- An existing 10/100 Ethernet-based network.

Introduction

Congratulations on your purchase of the **DCS-900 Fast Ethernet Internet 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

- **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™.

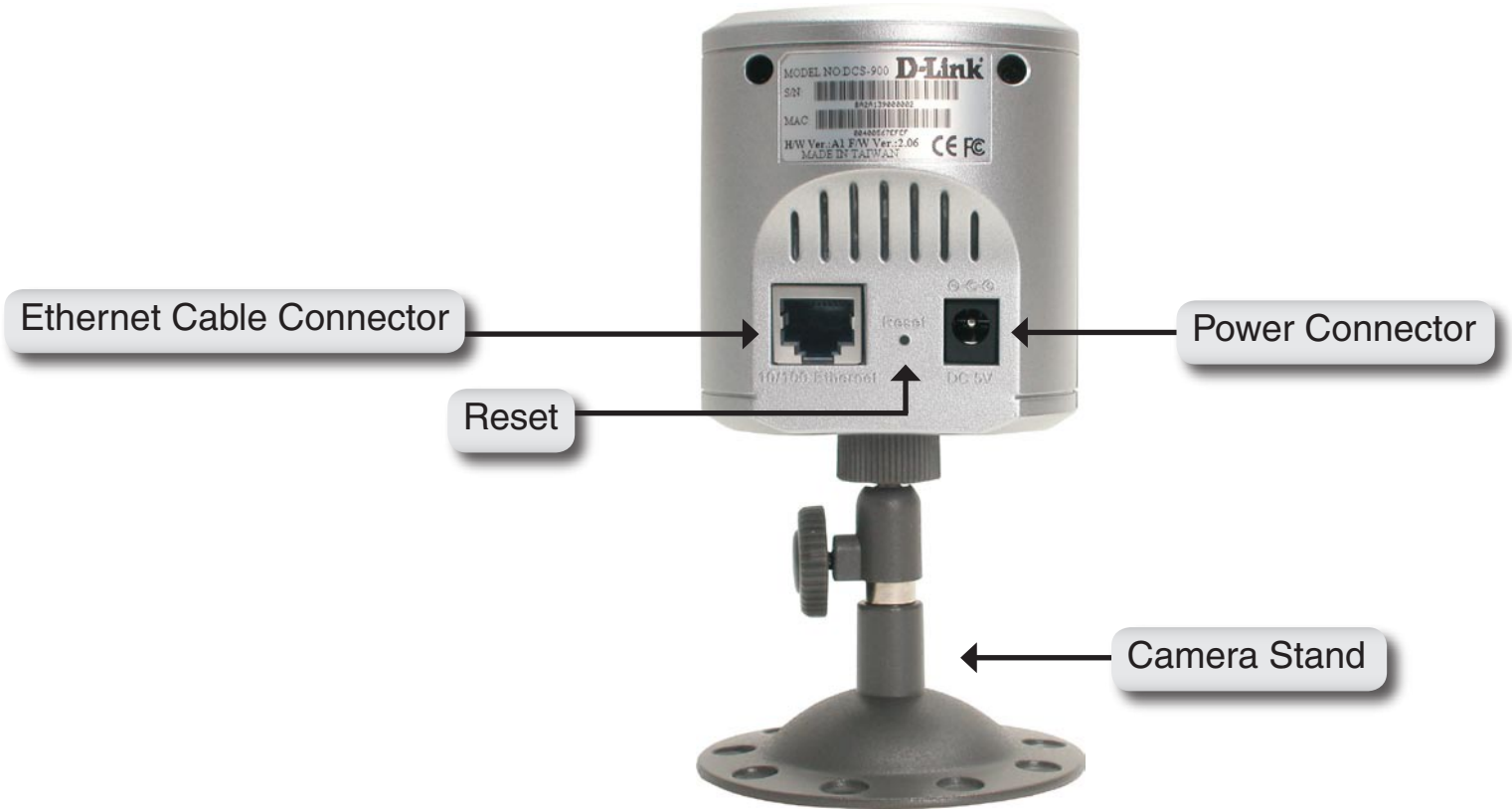
- **Supports a Variety of Platforms** - Supporting TCP/IP networking, HTTP, and other Internet related protocols. The DCS-900 can also be integrated easily into other Internet/Intranet applications because of its standards-based features.

- **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



Hardware Overview

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.

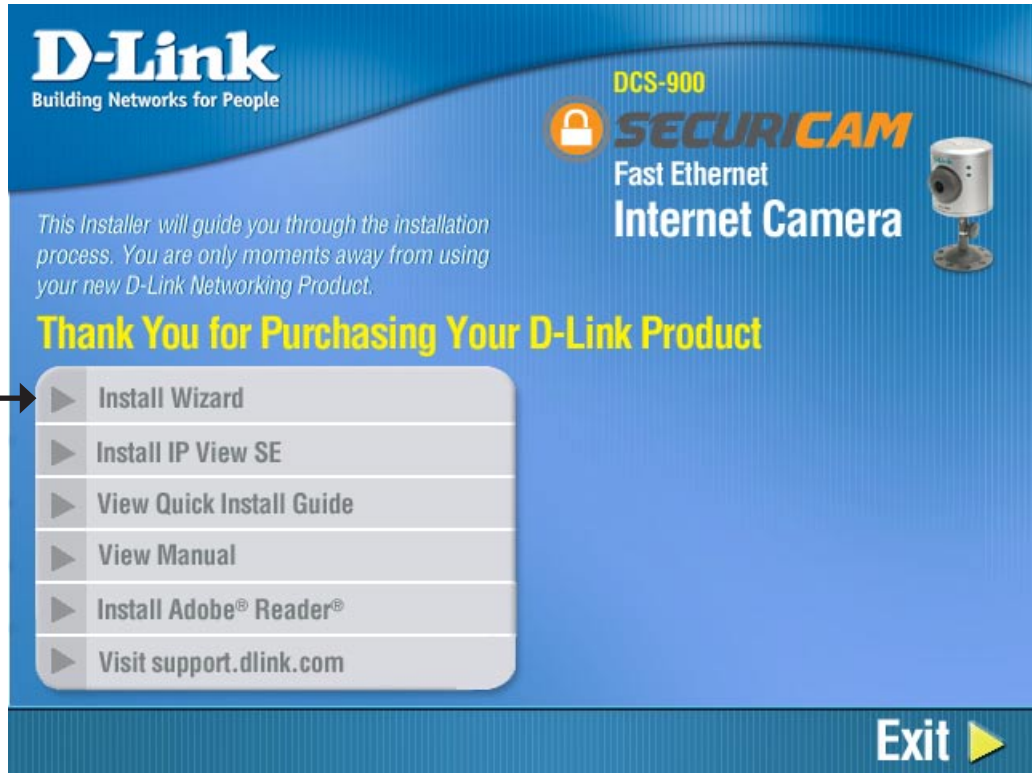
Note: *When the DCS-900 is used for the first time, it is highly recommended that the Administrator set the* ***Admin ID*** *and* ***Admin Password*** *to restrict user access to the DCS-900 since the default settings are Null String (no password). Once the ID and Password are defined, only the Administrator 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.*

Using the Setup Wizard

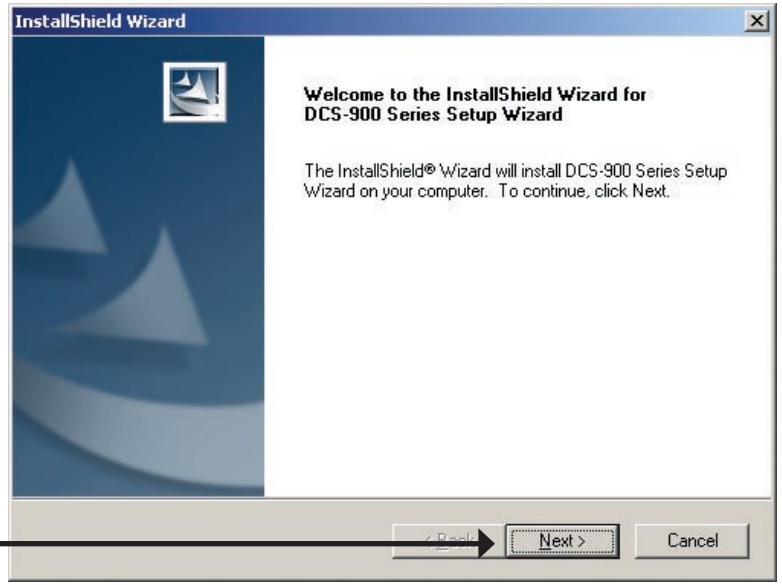
Follow the simple steps below to run the Setup Wizard to guide you quickly through the installation process.

Insert the **D-Link DCS-900** CD into your CD-ROM drive.

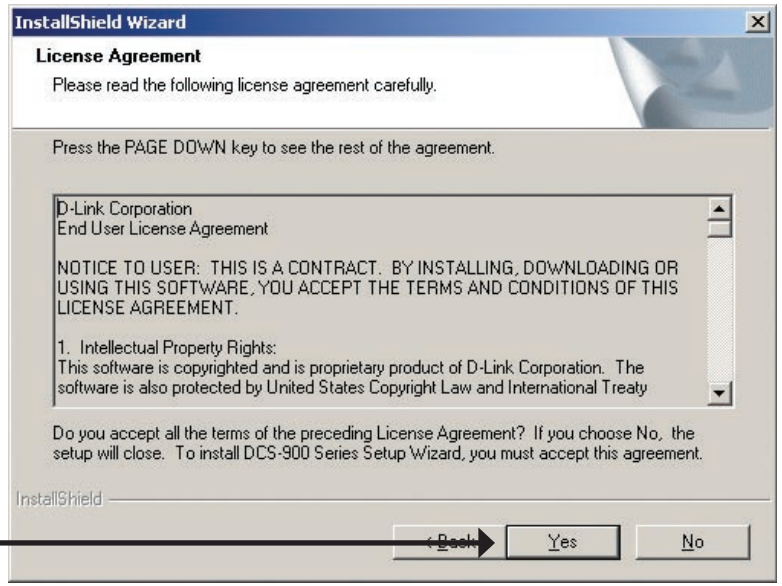
Click on **Install Wizard**

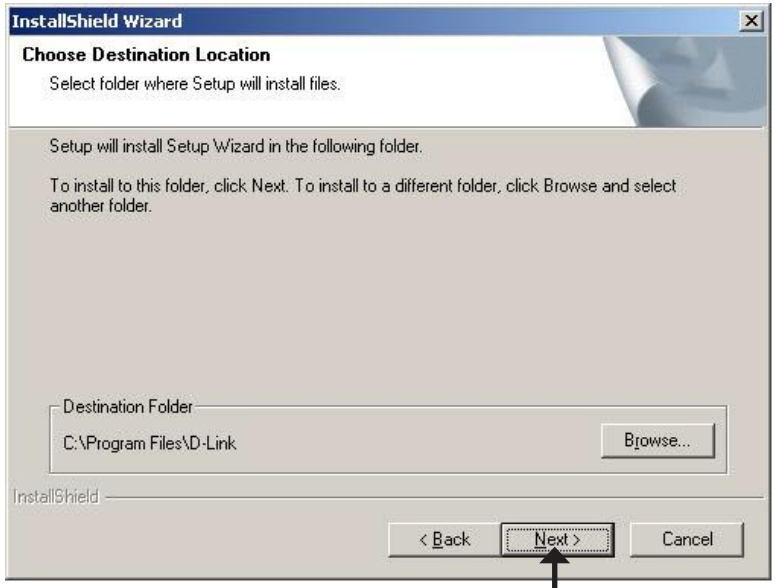


Click **Next**

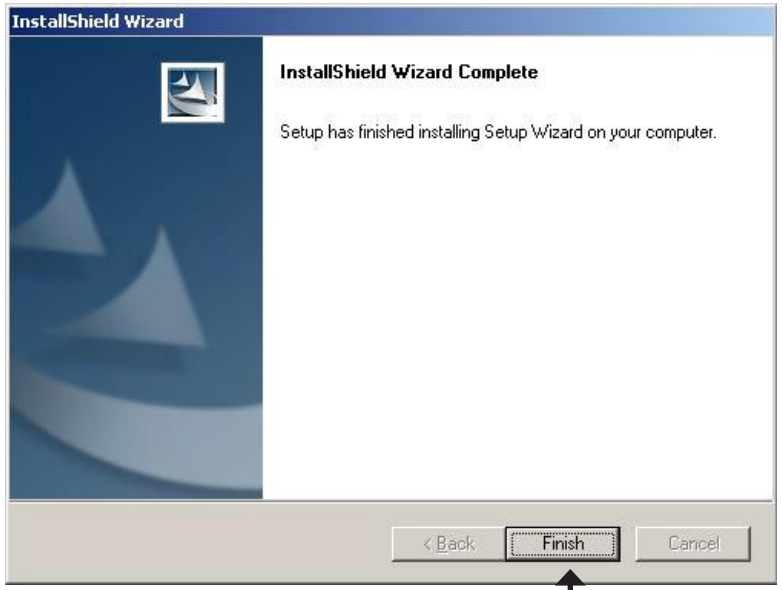


Click **Yes**





Click **Next**

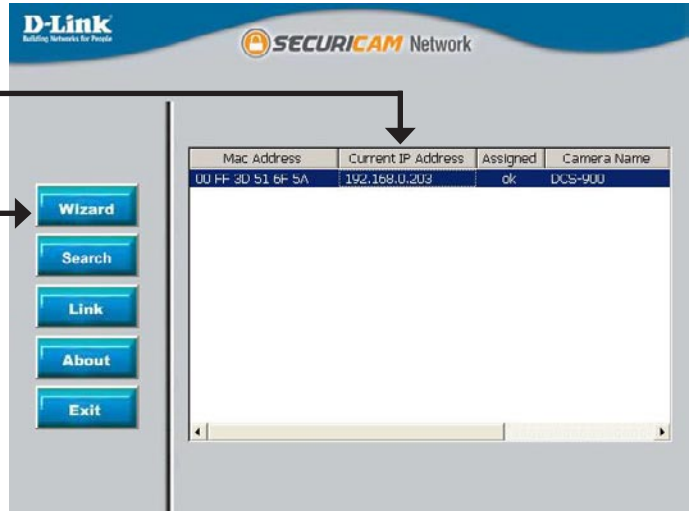


Click **Finish**

To run the Setup Wizard, click on **Start** > **Programs** > **D-Link Setup Wizard**.

Your camera's IP Address will be displayed here along with its corresponding MAC Address.

Click **Wizard**

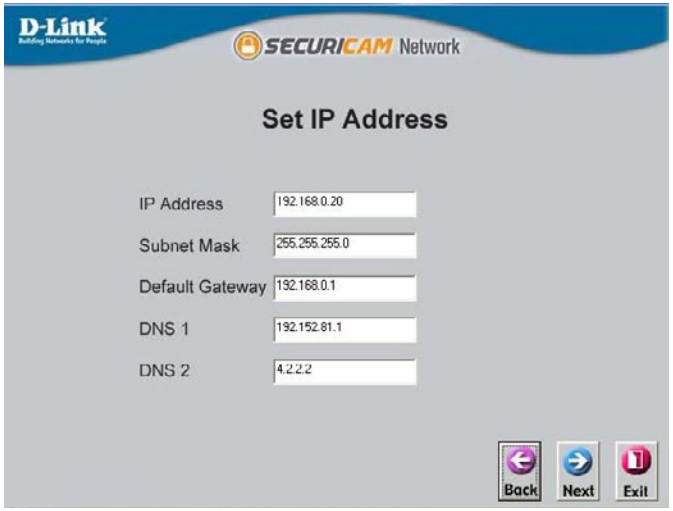


You must change the **Admin ID** and **Password** immediately to protect your camera against unauthorized access. By default, the Admin ID and Password are blank. To change the Admin ID and Password, select both **Change** boxes and enter a **New ID** and **New Password**.

Click **Next**

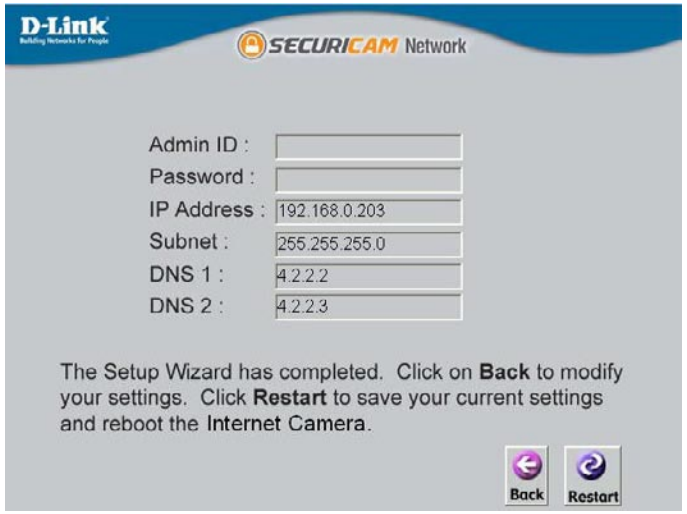
Enter an **IP Address** and **Subnet Mask** for your camera if you want to change the current settings. Enter your **Gateway** and **DNS** settings. These settings must correspond with your network settings for you to access the camera. If you are unsure of what these settings should be, check with your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

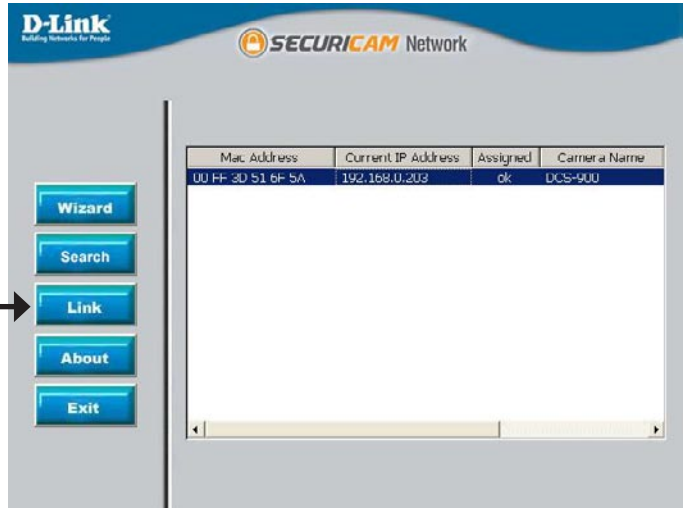
If you need to make any changes, click **Back** to modify your settings. Otherwise, click **Restart** to save your settings.



Click **Restart**

Your setup is now complete!

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



Click **Link**

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.**

Click **ActiveX** or **Java** to view your video images.

- 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.
- Please refer to the Manual located on the CD-ROM for additional information regarding all features and instructions related to the DCS-900.

Home

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 will allow you to configure the DCS-900.

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

After clicking the Setup button, you will be directed to **Advanced > System**. Please refer to page 20 for more information.

Advanced

System

Camera Name: Provide the name of your camera.

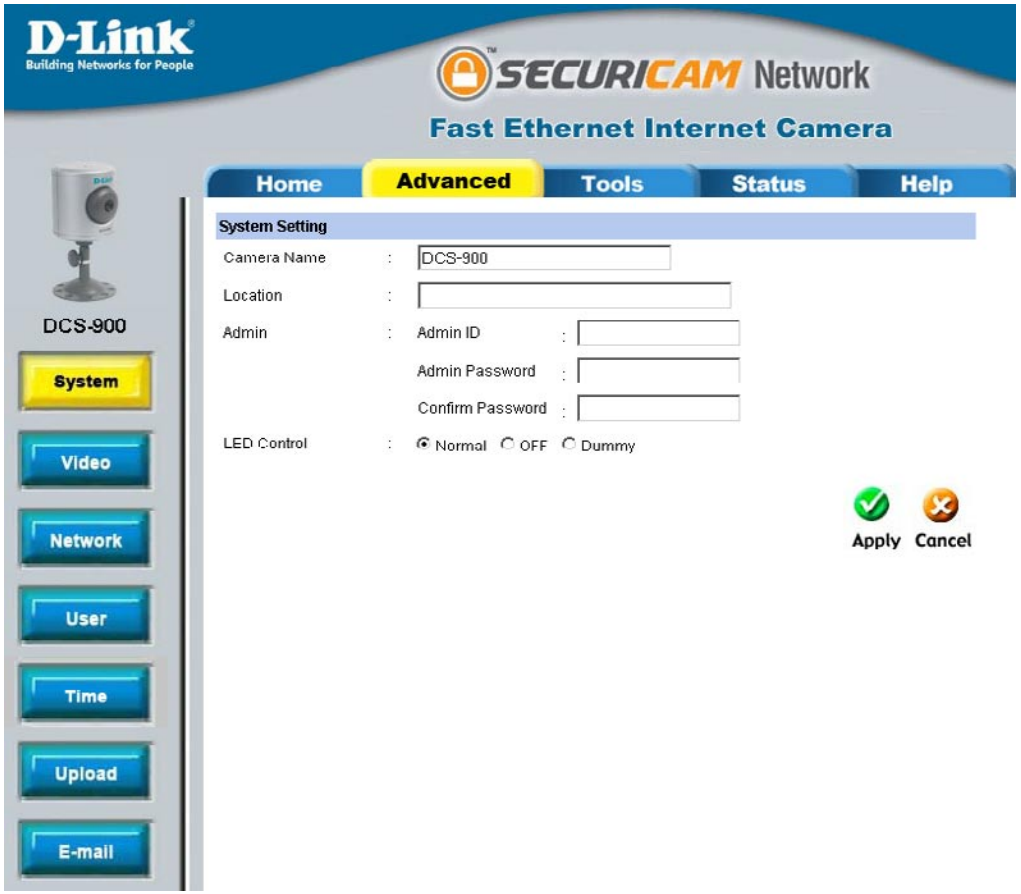
Location: Enter information of where your camera is located.

Admin ID: Enter the Administrator's ID or name.

Admin Password: Enter the Administrator's password.

Confirm Password: Re-enter the Administrator's password for confirmation.

LED Control: You can set the LED in front of the DCS-900 to on (**Normal**), off (**OFF**), or blink randomly (**Dummy**).



Video

Video Resolution: There are three settings available to choose from **160x120**, **320x240,** and **640x480**.

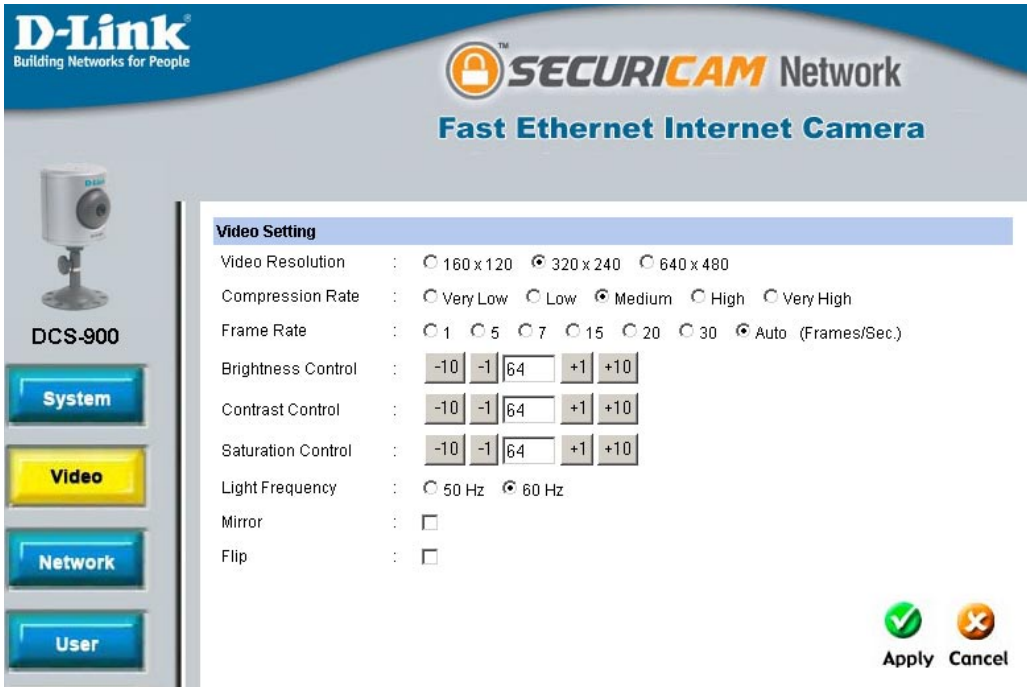
Compression Rate: Compression will be selectable from **very high**, **high**, **middle**, **low**, and **very low.**

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.

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.

Network

Fixed IP: Manually provide a fixed IP Address for your connection.

IP Address: Enter your IP Address, this is necessary for network identification.

Subnet Mask: Provide a Subnet Mask, this will be used to determine if the destination is in the same subnet.

Default Gateway: Enter your Default Gateway.

Dynamic IP (DHCP): 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 onthe network.

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

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.

Dynamic DNS: If you have set up the DDNS service you will need to put in your user name and password. This will allow the DDNS to track your IP Address even if it changes constantly. DDNS is disabled by default.

Service Provider: Select the service provider from the pull-down list.

Host Name: Provide the host name for the service provider.

User Name/Email: Enter your user name and/or e-mail in this field.

Password/Key: Enter your password and/or key in this field

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.

Port Number: If the second 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 is 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" on page 38.

UPNP: UPnP™ is short for Universal Plug and Play which 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, it can be disabled by selecting **Disabled**. This function is enabled by default.

User

Access Control: Enable this function to allow users same rights as the administrator.

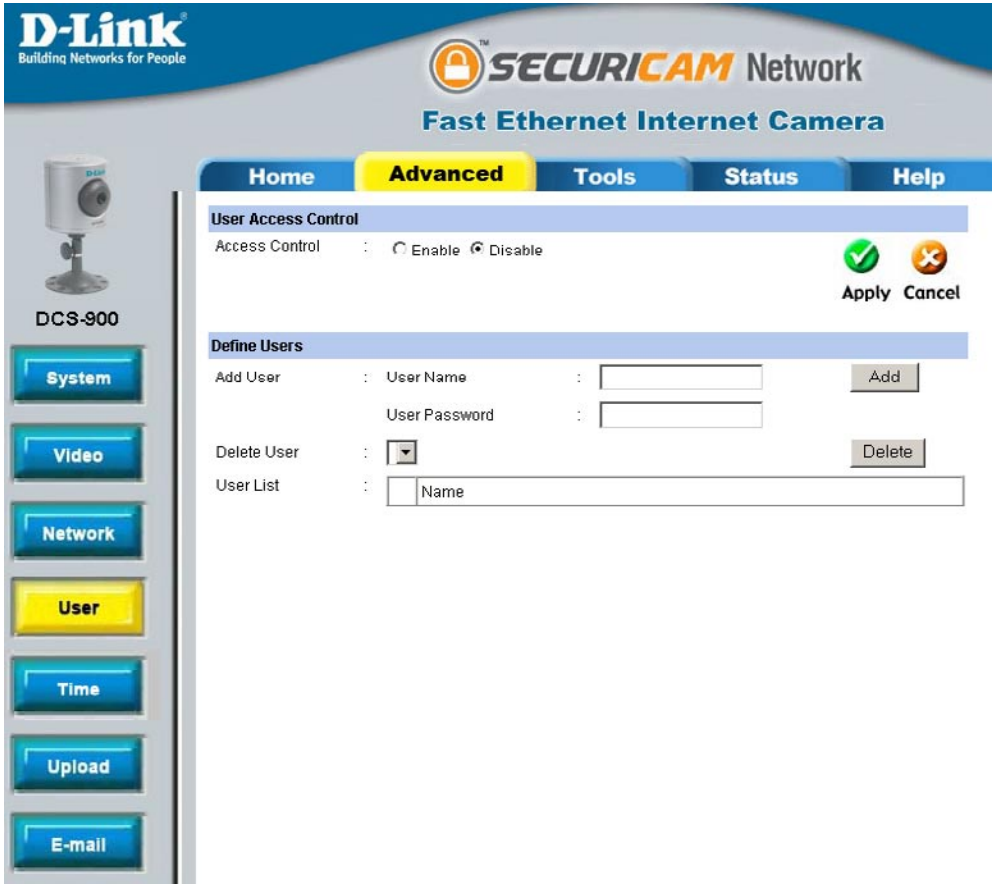
Add User: This will enable you to add users. You must click **Add** each time you add a user to the User List.

User Name: Add the User Name of the user.

User Password: Add the User Password of the user.

Delete User: Select a user from the pull-down list and click the **Delete** button.

User List: This list shows all of the users added.



Time

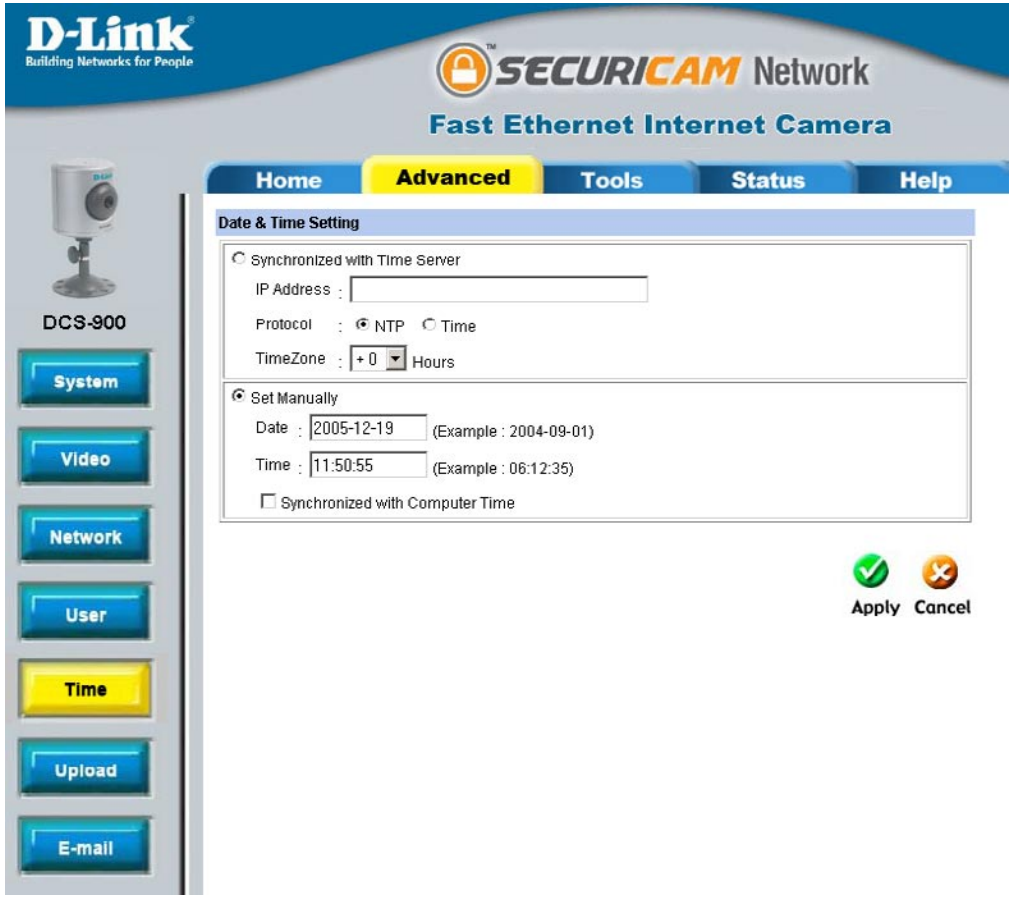
Synchronized with Time Sever: The time will be based on the GMT setting, and will be synchronized every 10 minutes. This is the default setting for the Internet Camera. Remember that the time set does not take into account the Daylight Savings time. Please take this into account and adjust your time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

IP Address: Enter the IP Address of the NTP server.

Protocol: NTP is a protocol designed to synchronize the clocks of computers over a network. NTP has the ability to continually keep a server or workstation's time in sync with Coordinated Universal Time.

Time Zone: Select the time zone that you are in. Bear in mind that this setting does not take into account Daylight savings. Selecting synchronize with computer time will automatically adjust for Daylight savings since this feature is built-in to the Windows® operating system.

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.



Upload

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. 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.

Passive Mode: Enabling passive mode will allow access to an external FTP server if your camera is behind a router protected by a firewall.

Enable upload image to FTP server: 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 for each frame, this is configurable from 1 to 65535 seconds.

Base File Name: This will be the name that precedes the time, for example 900200507211642510l.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.

Email

SMTP Sever Address: This is the domain name or IP address of your external e-mail server.

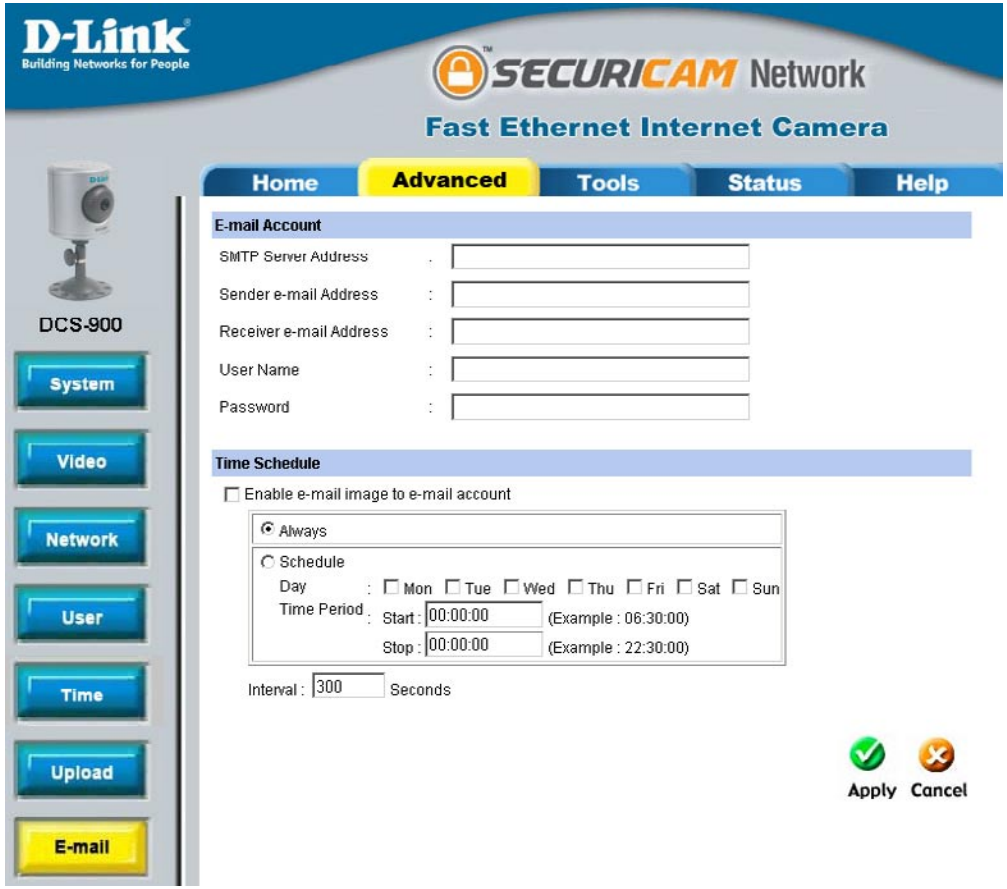
Sender e-mail Address: This is the e-mail address of the person sending the camera snapshots.

Receiver e-mail Address: This is 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.

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.



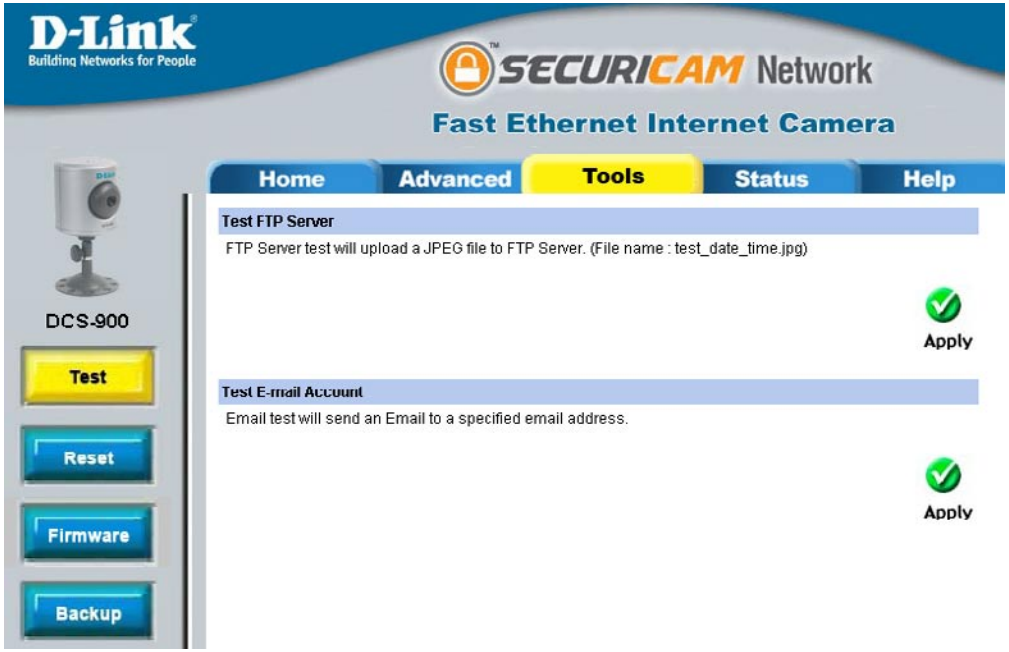
Interval: The frequency of the snapshot interval can also be configured from 1 to 65535 seconds.

Tools

Test

Test FTP Server: This 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.

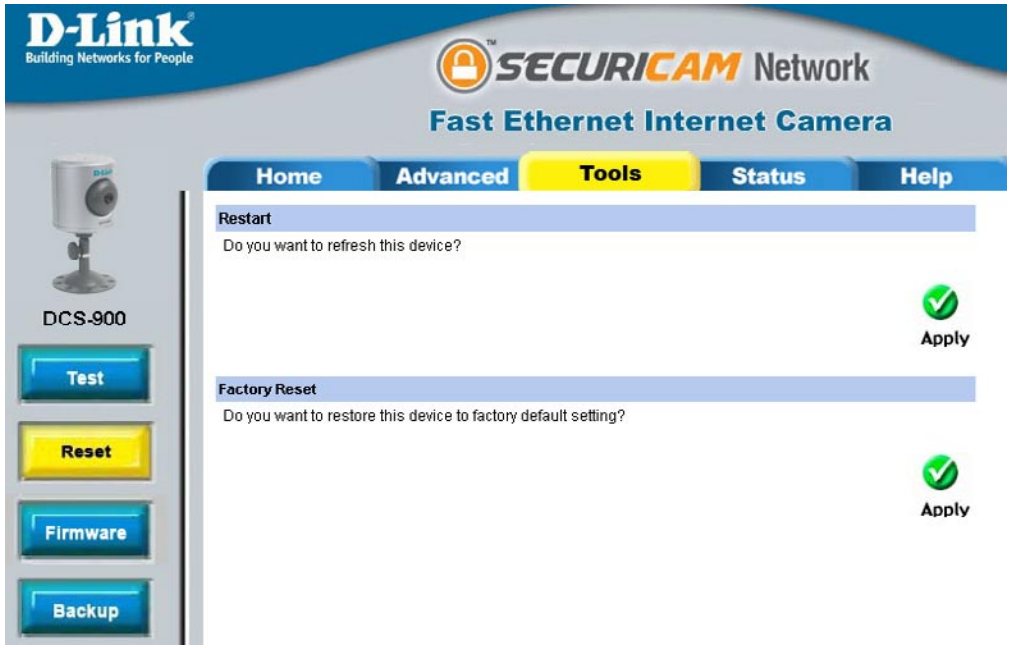
Test E-mail Account: This will send a snapshot to the e-mail account that you have configured in the **E-mail** section. If you have configured the SMTP account correctly you will be able to send a test file to the e-mail account of the recipient.



Reset

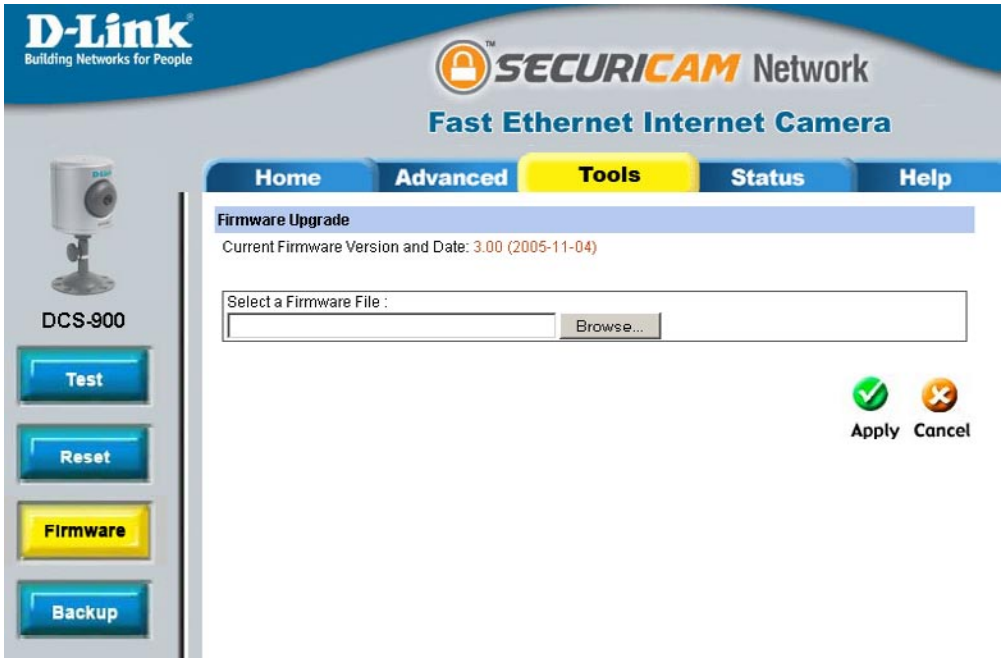
Restart: This will reboot the camera once you select **Apply**.

Factory Reset: Select **Apply** will reset the camera to all its default settings. The Installation Wizard may need to be used in order to find the camera again.



Firmware

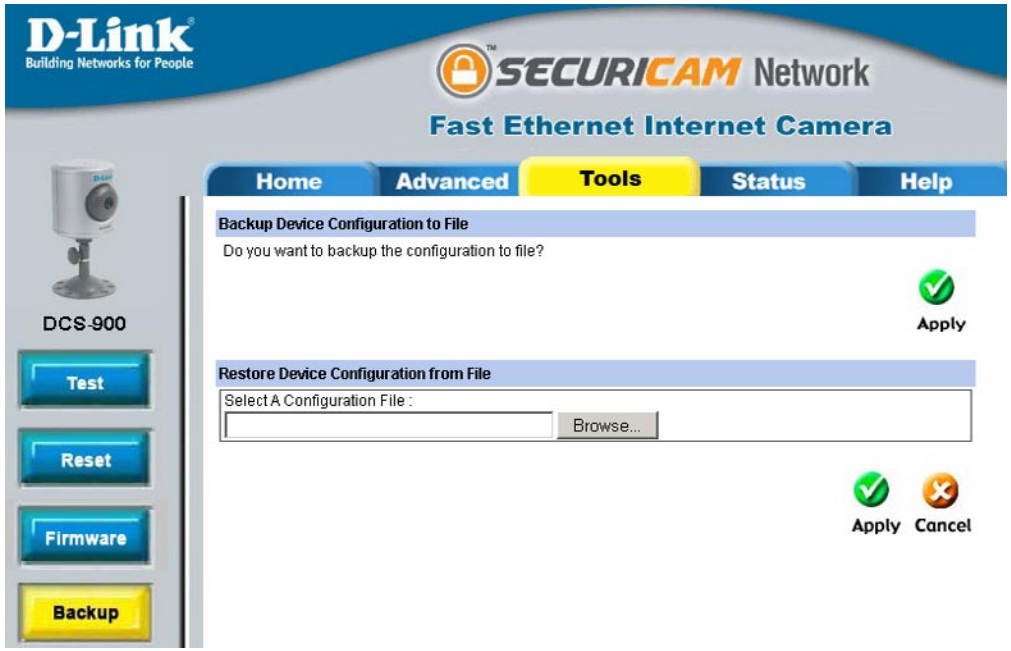
Firmware Update: This will allow you to upgrade the firmware for the camera. Click **Browse** to find the path to the file of the firmware that you have previously saved by visiting http://support.dlink.com/.



Backup

Backup Device Configuration to File: This will allow you to save the camera's configurations to your hard drive.

Restore Device Configuration from File: This is particularly useful if you will be installing more than one camera; remember to make the IP Address unique to each camera, so there will not be two cameras with the same IP Address on the same network.

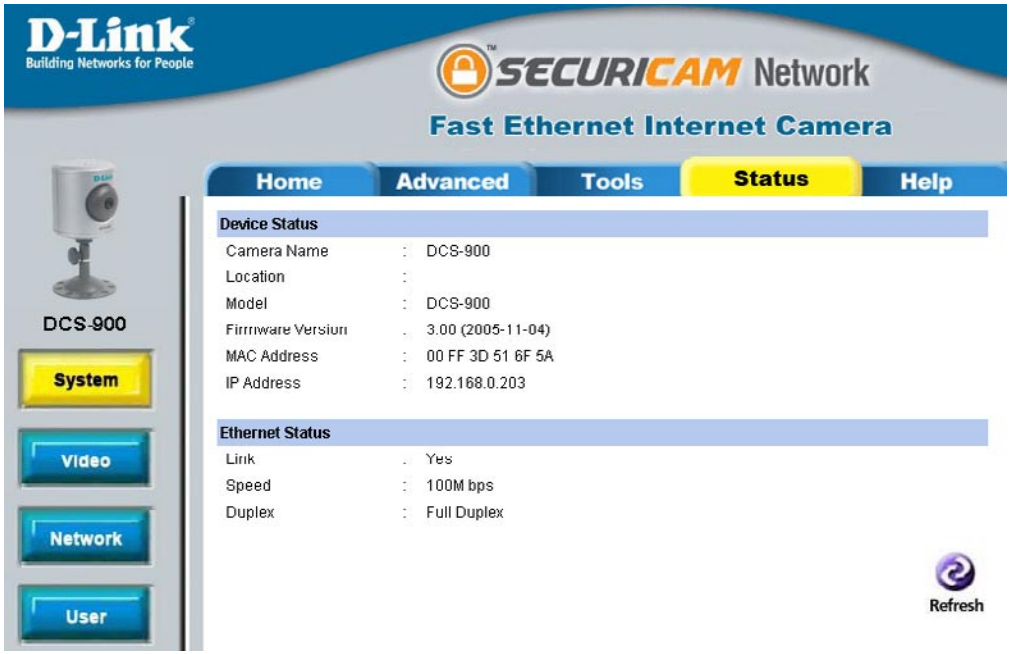


Status

System

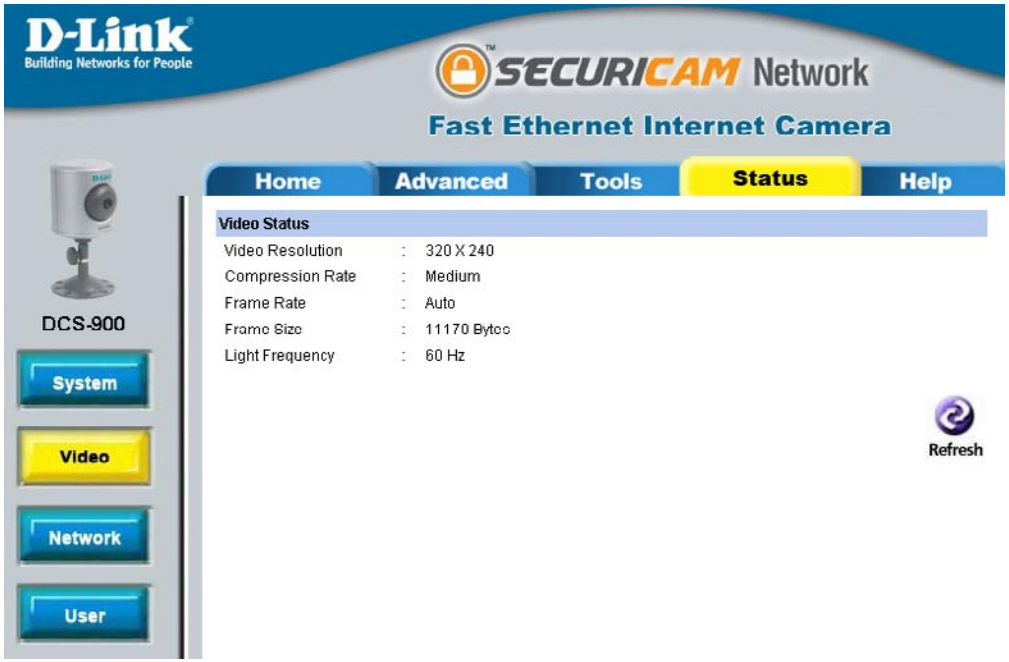
Displays information about the Device Status, such as Camera Name, Location, Model, Firmware Version, MAC Address, and IP Address.

Also displays information about the Ethernet Status, such as Link, Speed, and Duplex.



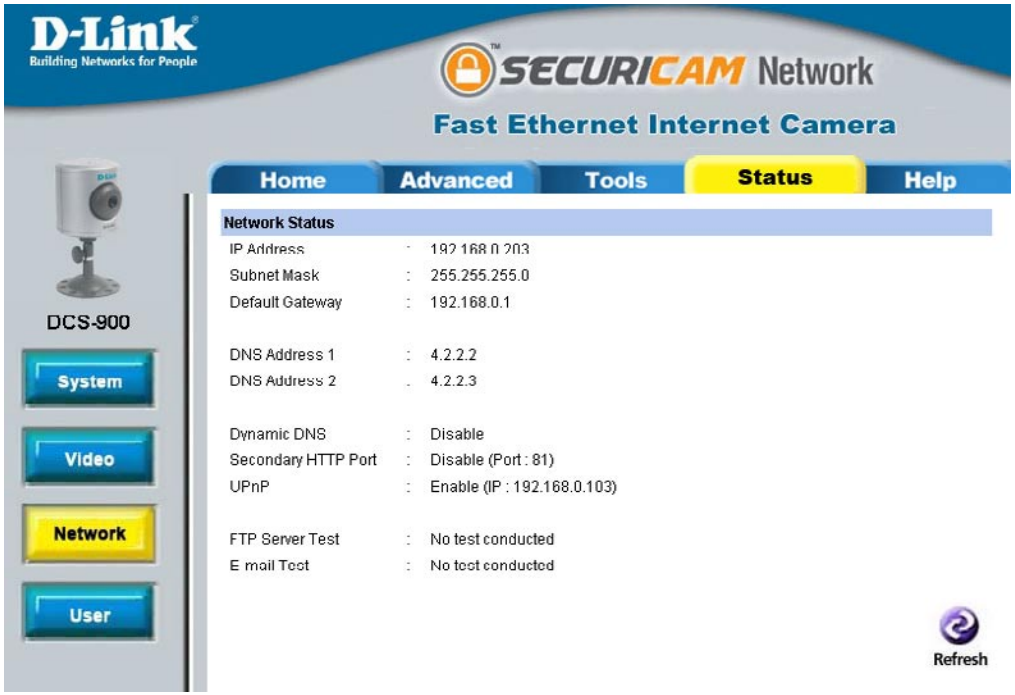
Video

Displays information about the Video Status, such as Video Resolution, Compression Rate, Frame Rate, Frame Size, and Light Frequency.



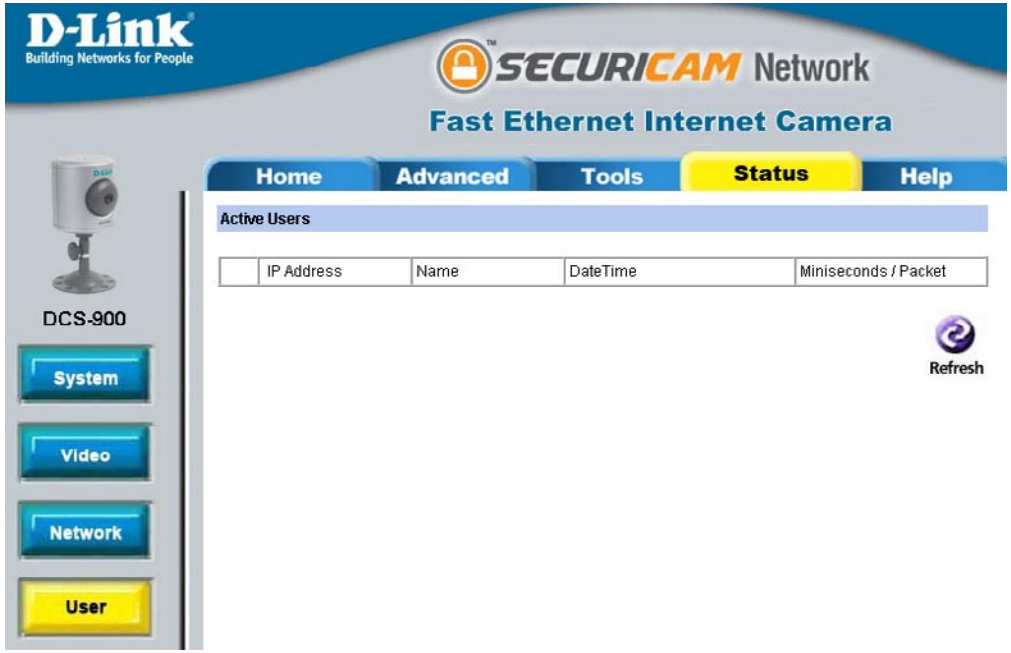
Network

Displays information about the Network Status, such as IP Address, Subnet Mask, Default Gateway, DNS Address 1, DNS Address 2, Dynamic DNS, Secondary HTTP Port, UPnP, FTP Server Test, and E-mail Test.



User

Displays information about Active Users, such as their IP Address, Name, DateTime, and Miniseconds/ Packet.



Help

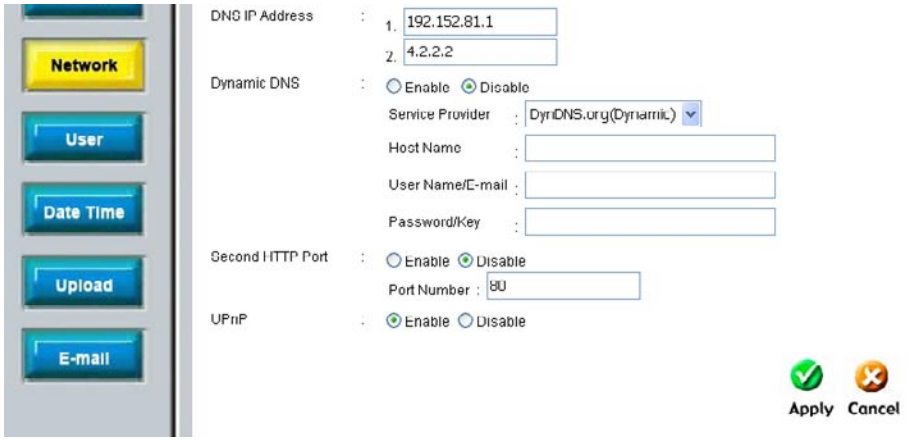
Click Help for easy access to information on specific fields.

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

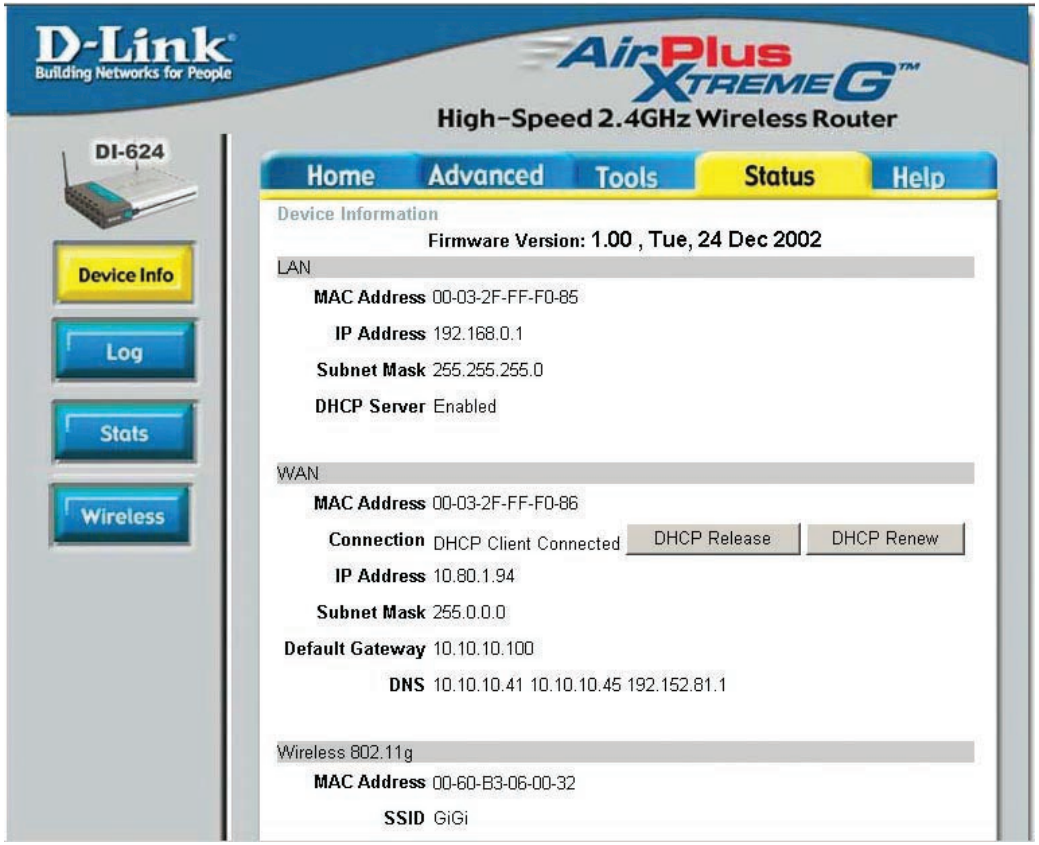
The HTTP Port option is used when multiple cameras are being installed behind a single public IP address and will be accessed remotely OR for using a port other than the default port for image viewing. For each additional camera that is installed, you must assign the appropriate Web server port for each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

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 DI-624 is used as an example to clarify the configuration process. Your WAN IP Address information will be listed on following window.

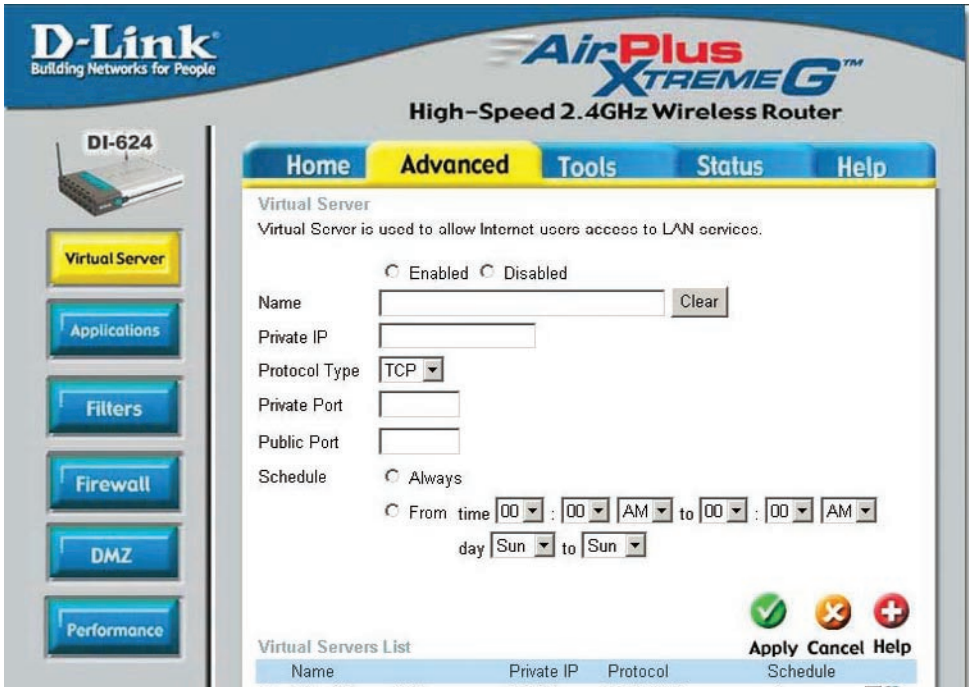


Note: *Because a dynamic WAN IP address can change from time to time depending on your ISP, you may want to obtain a Static IP address from your ISP. A Static IP address is a fixed IP address that will not change over time and will be more convenient for you to use to access your camera from a remote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

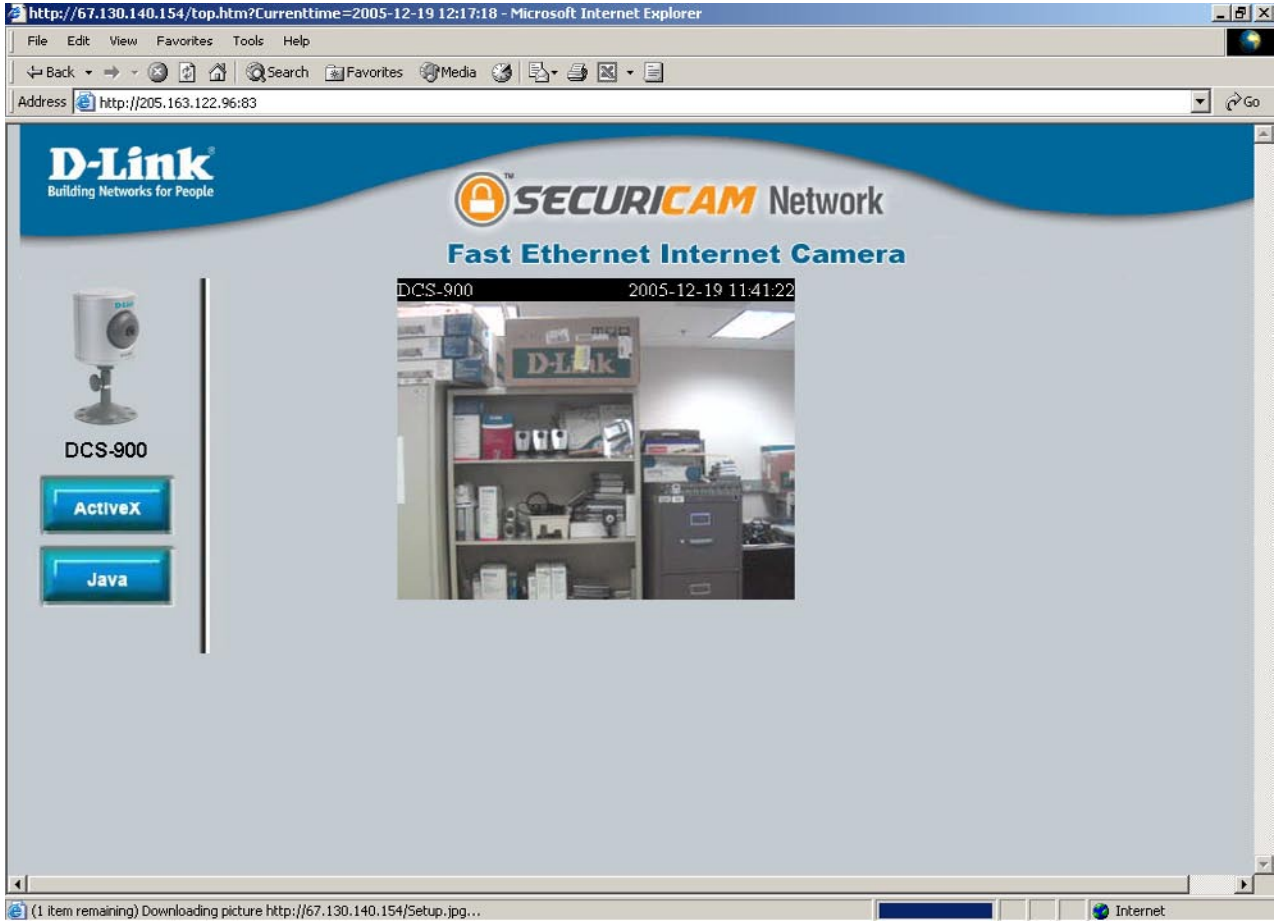


- Select **Enabled** to enable virtual server settings.
- Select a camera name.
- Enter your camera's Local IP Address in the **Private IP** field.
- Select **TCP** under **Protocol Type**.
- If you are using the default camera port settings, enter **80** in to the **Public** and **Private Port** section.
- 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.*

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. (Ex. 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 (i.e. 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.

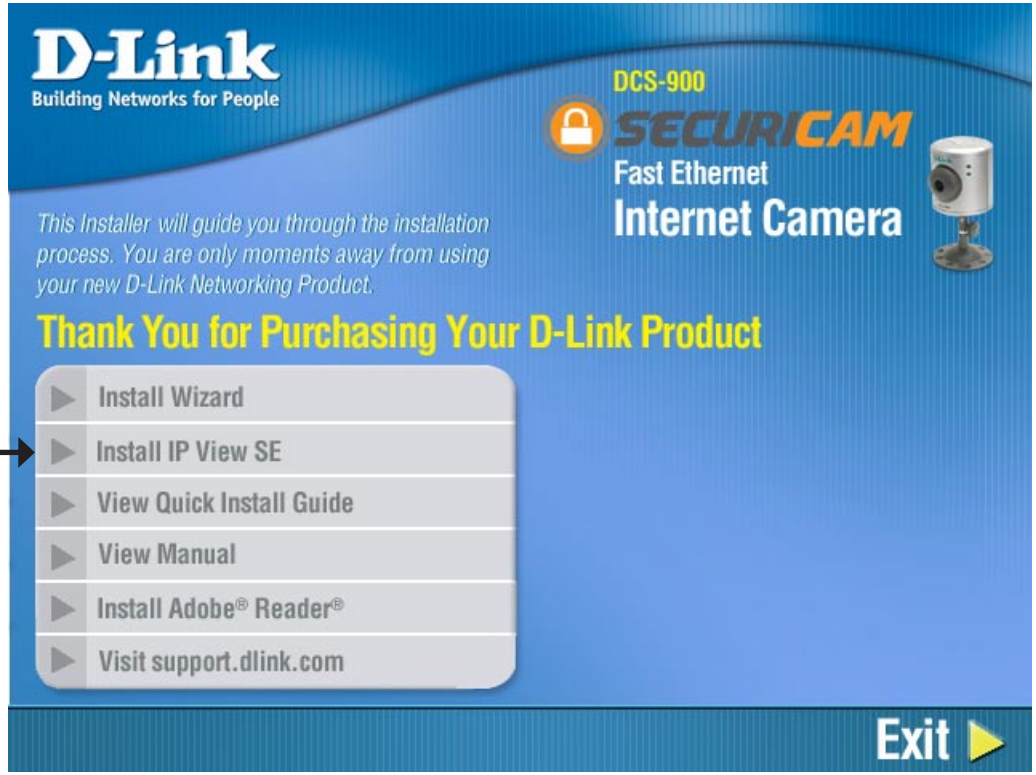


IPView SE Application Installation

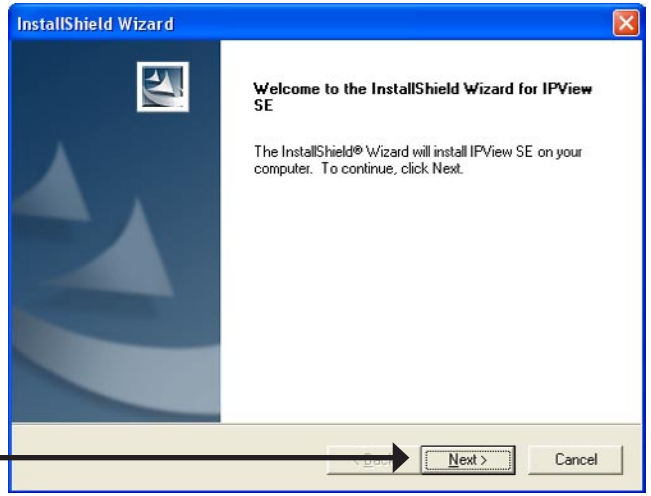
IPView SE software is included for administrators to manage up to 4 DCS-900s remotely. Administrators can also record to hard drive and configure advanced settings for the DCS-900. IPView SE is a complete software management tool for the DCS-900 and includes all configurable settings available in the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

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

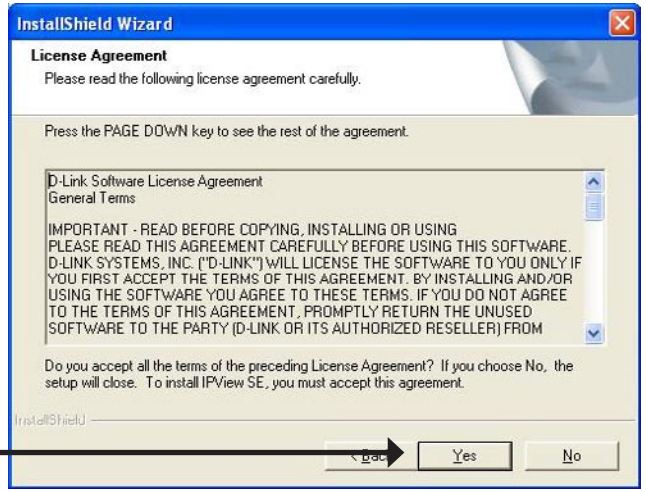
Click **Install IPView SE**



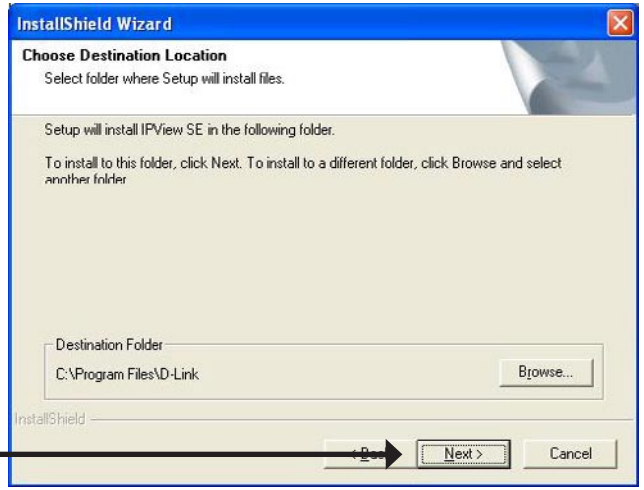
Click **Next**



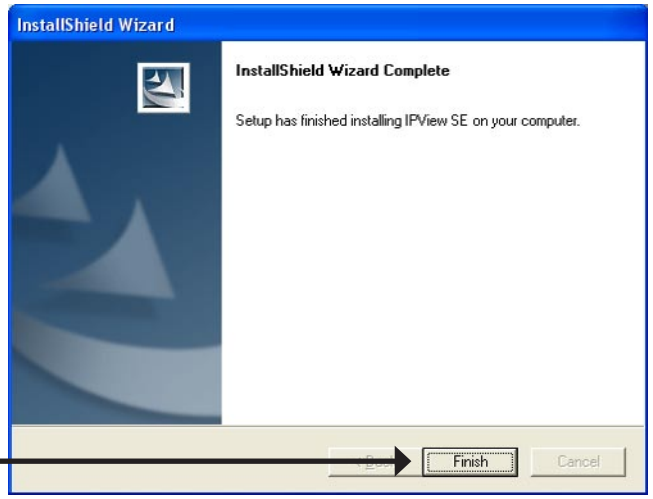
Click **Yes**



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

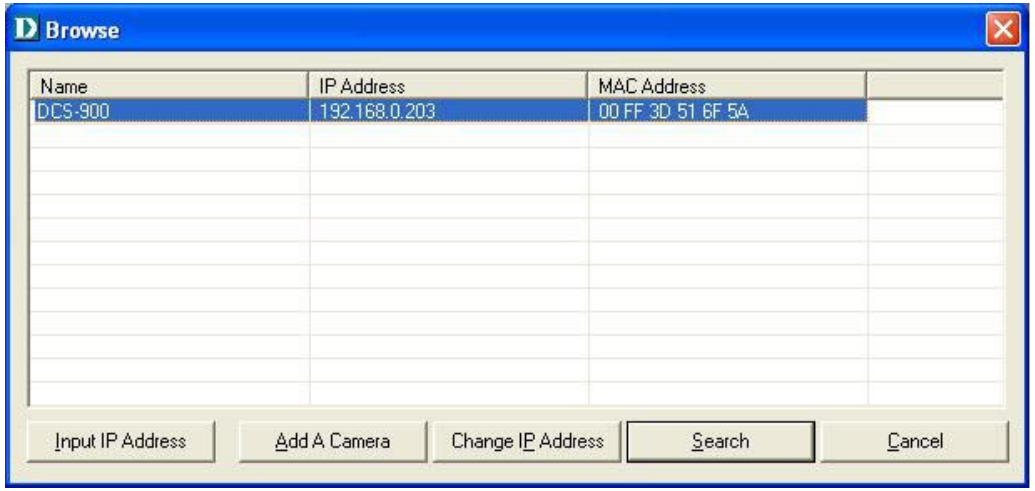
Upgrade Firmware

Add a New Camera

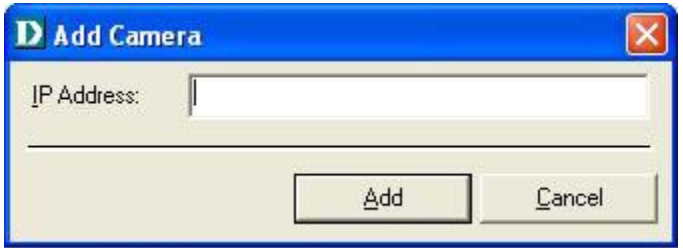
To add a new camera select the **Camera** button from the IPView SE. Make sure that the green lights are on when clicking the camera button.

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 your have already set the **Username** and **Password** during the Web Configuration setting.

How to Delete a Camera

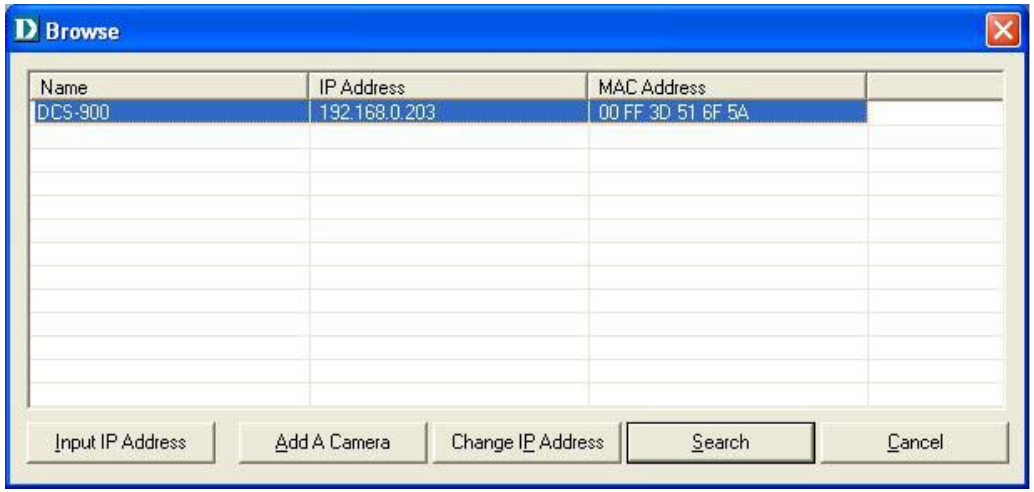
Click the **Liberate Camera** button on the IPView SE, while you are connected to the camera you would like deleted. The IPView SE camera button become available as soon as you click on the **Liberate Camera** button. The green light from under the camera button will become grey.

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).

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

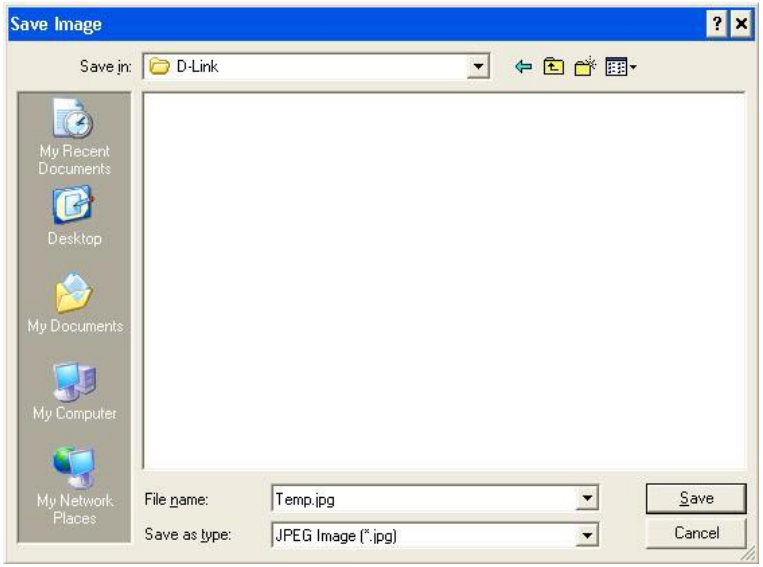
Click the **Always on Top** button to have the display screen always appear on top.

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

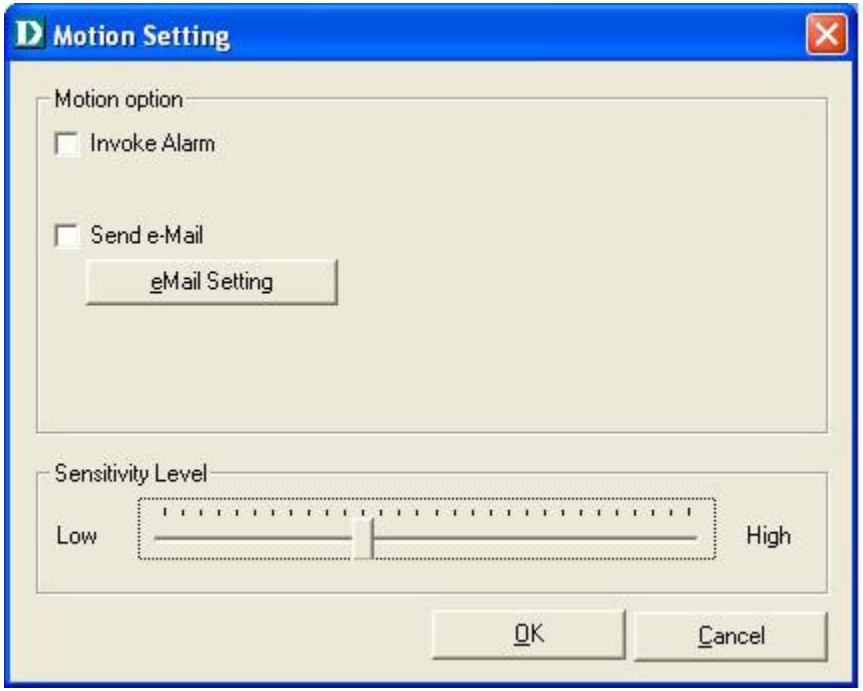
Once you have completed the initial configuration of the DCS-900 using the Web-based interface, you can review or change your configuration using either the Web-based configuration utility or the Settings in the DCS-900 IPView SE.

Configure Camera from Web

Click the **Configure Camera from Web** button to start configuring your camera from the web again (see page 19).

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 **Send 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.

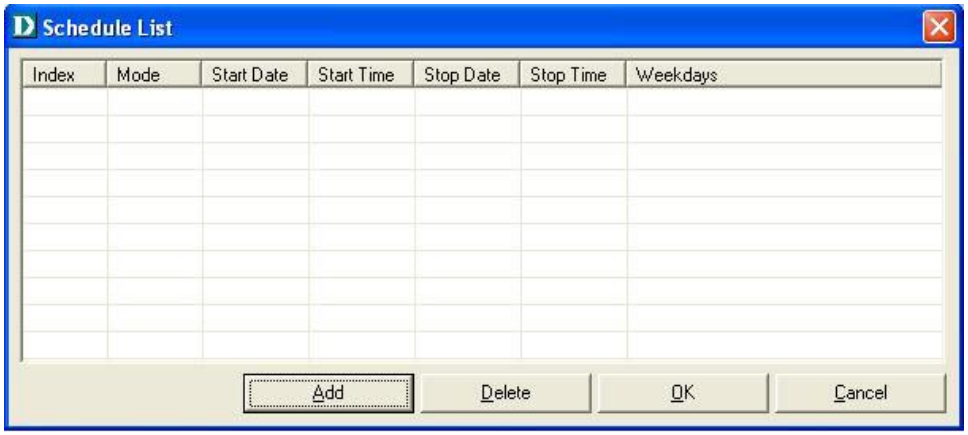


Manual Recording

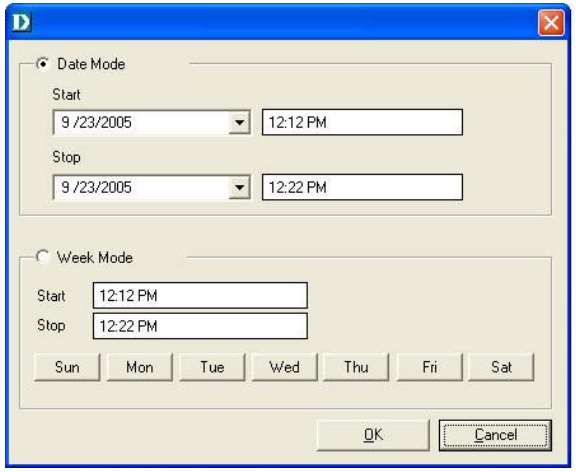
Click the **Manual Recording** button , to begin recording images from your camera.

Schedule Recording

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

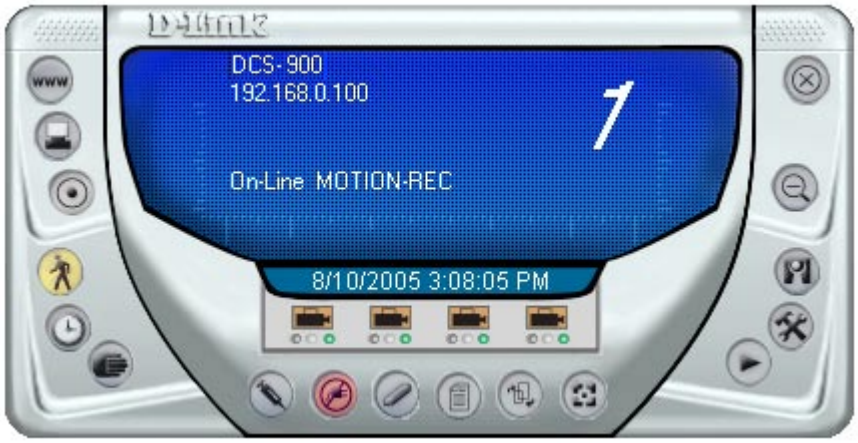


Select **Date Mode** and enter in the **Start** date/time, and **Stop** date/time. The camera will start to record according to the specified date and time period entered. Select **Week Mode** to specify which date to record during the time period.



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 (see page 56).

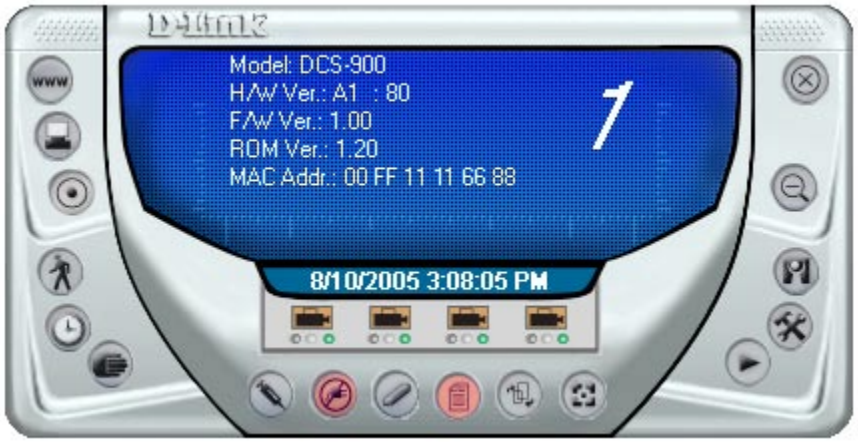


Scan

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.

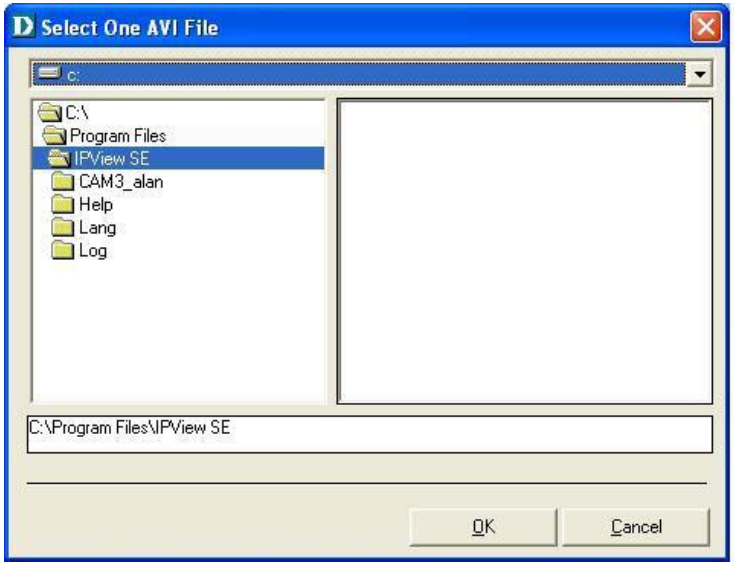
Camera's Extra Information

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



Play

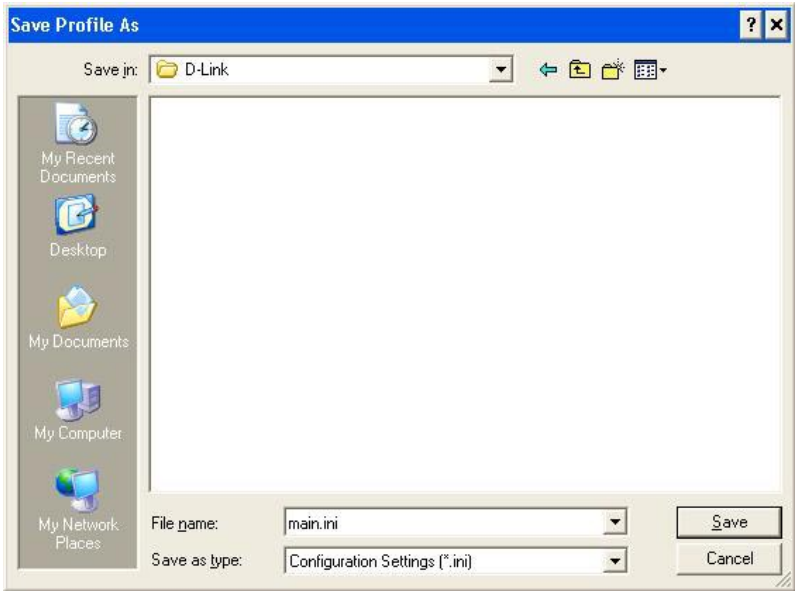
Click the **Play** button to playback video recorded from your camera.



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.

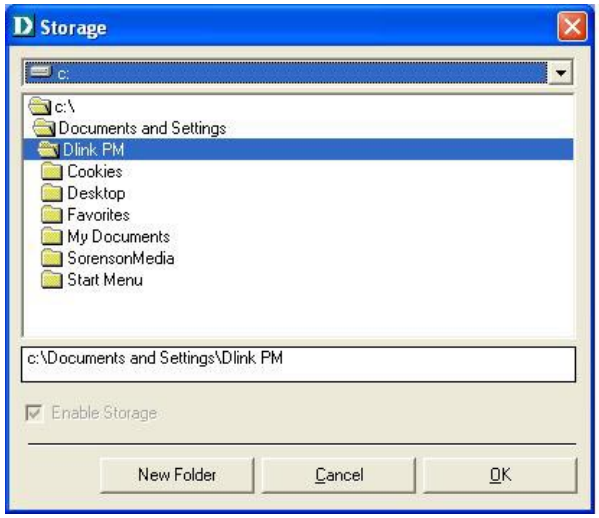


Log Storage: The **Single HDD Reserved Space** option permits reserved HDD space from 500 MB to 1000 MB.

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 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 storage at least.

Recycle: The **Reserved HDD space per camera** option allows old video files to be overwritten and replaced by new recorded 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.*

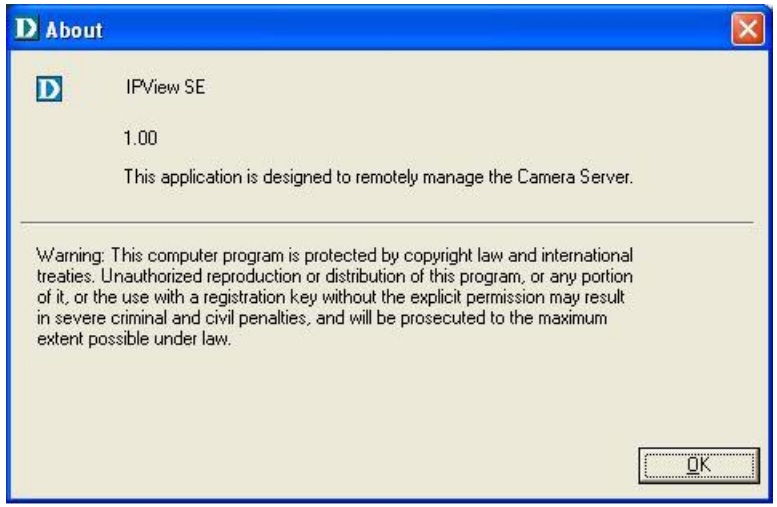
Player Setup: In this section you may choose between **Windows system default** or **User define** for the video player desired for playback of recorded video files. Selecting **User define** will allow you to Browse for your desired video player.

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.

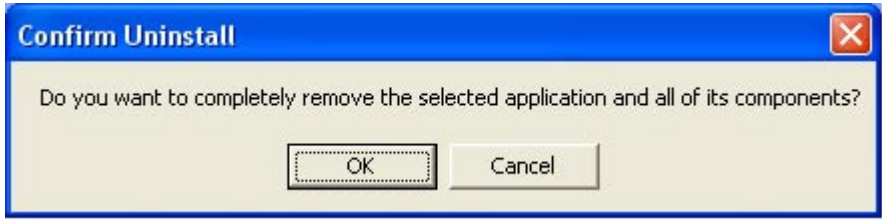
About

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

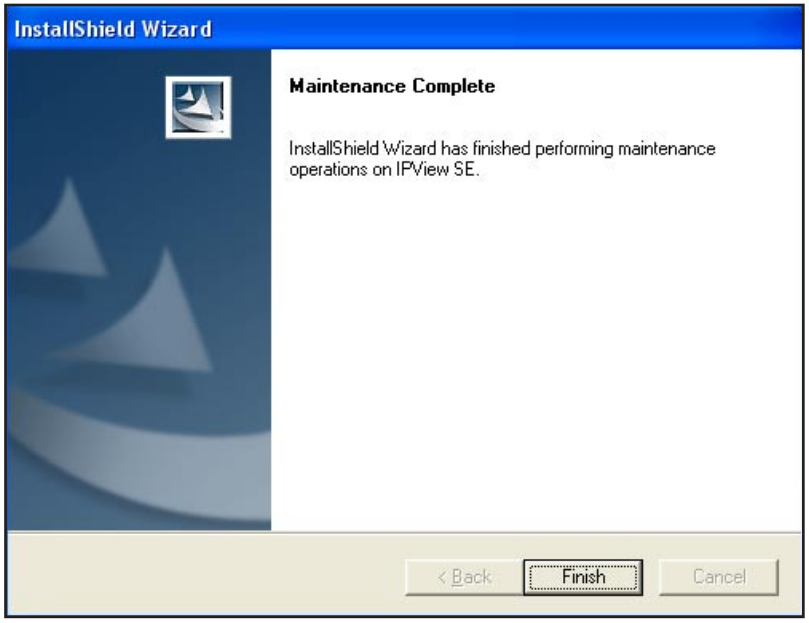


Uninstall IPView SE

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

Fast Ethernet Internet Camera Features

What is an Internet Camera?

The Internet Camera is a standalone system connecting directly to an Ethernet or Fast Ethernet network. 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 transfer high quality video images for monitoring. The Internet Camera accessed and controlled from any PC/Notebook over the Intranet or Internet via a Web browser.

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.

What algorlthm is used to compress the digital Image?

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

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.

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.

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.

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.The D-Link DSB-C110, DSB-C310 can be used as a PC Camera (Webcam).

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.

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.

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.

Fast Ethernet Internet Camera Installation

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. Also verify that the power supply is well connected, and/or the option to turn off the LED is enabled.

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, and/or the option to turn off the LED is enabled.

Why does the Internet Camera work locally but not remotely?

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 39 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 allow the Internet Camera to be accessed outside your local LAN.

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.

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.

The are poor quallity, 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.

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

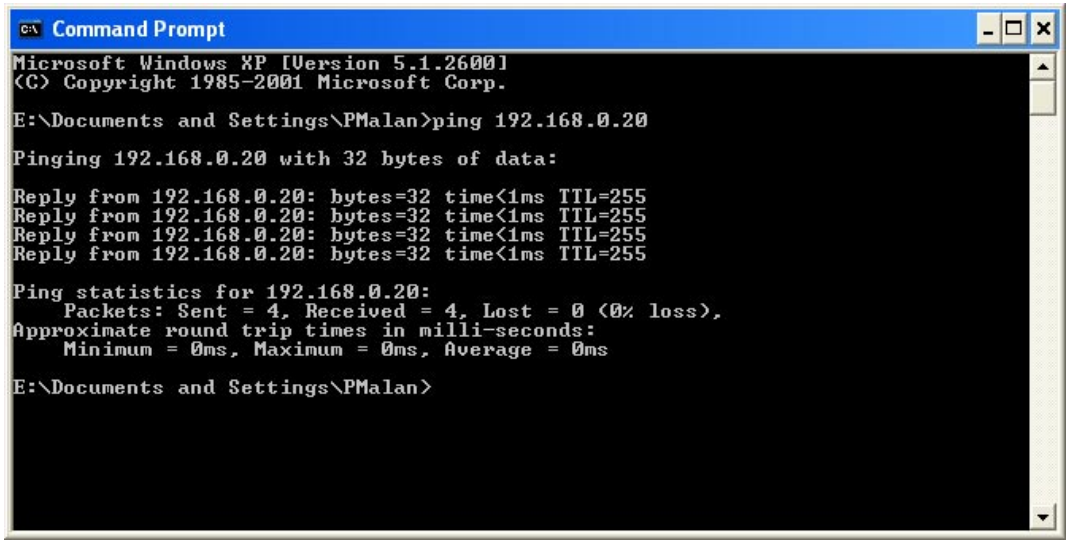
The PING (Packet Internet Groper) command can determine whether a specific IP Address is accessible by sending a packet to the specific address and waiting for a reply. It is a very useful tool to confirm if the IP Address conflicts with the Internet Camera over the network.

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

Open a DOS window Start>Program>Accessories> Command Prompt

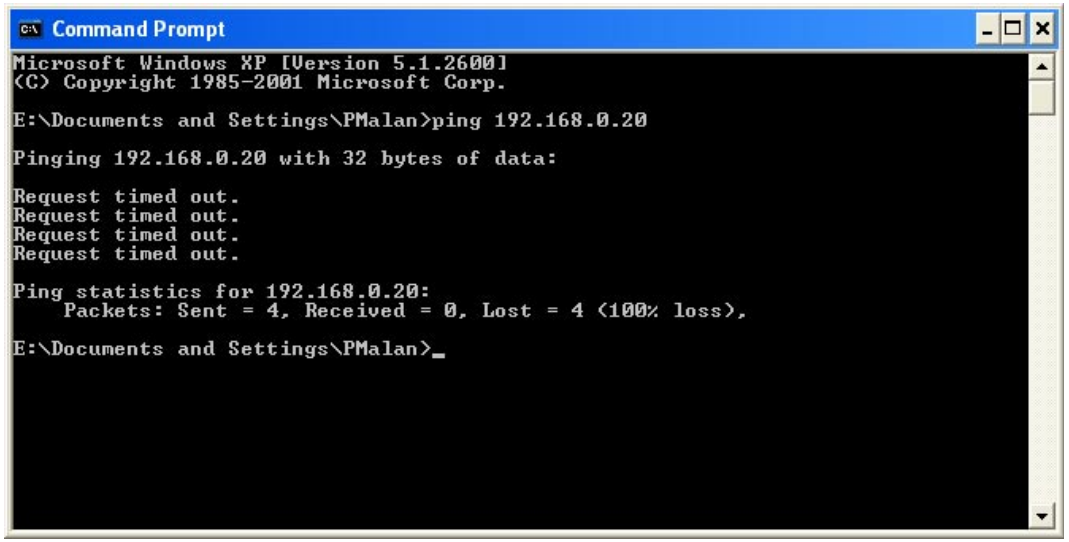
Type ping x.x.x.x, where x.x.x.x is the IP Address of the Internet Camera.

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



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

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



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: QCIF@30fps, 25fps@CIF, 10fps@VGA
- 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
- 266MHz 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 or XP
- 1.3GHz 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

Warranty

- 1 Year

Contacting Technical Support

D-Link provides free technical support for customers within the United States and within Canada for the duration of the warranty period on this product. 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-900)
- Hardware Revision (located on the label on the back of the camera (e.g. rev A1))
- Serial Number (s/n number located on the label on the back of the 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) 45D-Link (435-5465)
24 hours a day, seven days a week.

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

For customers within Canada:

Phone Support:
(800) 361-5265
Monday to Friday 7:30am to 9:00pm EST

Internet Support:
http://support.dlink.ca
email:support@dlink.ca

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 DLink in writing, the replacement Software is provided only to the original licensee, and is subject to the terms and conditions of the license granted by D-Link for the Software. Replacement Software will be warranted for the remainder of the original Warranty Period and is subject to the same limitations and exclusions. If a material non-conformance is incapable of correction, or if D-Link determines in its sole discretion that it is not practical to replace the non-conforming Software, 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 DLink to confirm the same, along with proof of purchase of the product (such as a copy of the dated purchase invoice for the product) if the product is not registered.

- The customer must obtain a Case ID Number from D-Link Technical Support at 1-877-453-5465, who will attempt to assist the customer in resolving any suspected defects with the product. If the product is considered defective, the customer must obtain a Return Material Authorization ("RMA") number by completing the RMA form and entering the assigned Case ID Number at https://rma.dlink.com/.

- After an RMA number is issued, the defective product must be packaged securely in the original or other suitable shipping package to ensure that it will not be damaged in transit, and the RMA number must be prominently marked on the outside of the package. Do not include any manuals or accessories in the shipping package. DLink will only replace the defective portion of the product and will not ship back any accessories.

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

What Is Not Covered:

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

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

Disclaimer of Other Warranties:

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

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

Limitation of Liability:

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

Governing Law:

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

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CE Mark Warning:

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

FCC Statement:

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

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

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

Registration

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

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