

USER MANUAL

DCS-1110

VERSION 1.0



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Package Contents

- D-Link DCS-1110 10/100 TX PoE 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-1110 will cause damage and void the warranty for this product.



System Requirements

- Local Area Network: 10Base-T Ethernet or 100Base-TX Fast Ethernet
- Recommended: PC or Notebook to access the Internet Camera
- PC with 1.3GHz Processor, 128MB Memory, Windows® XP/2000 and Internet Explorer v6
- Multiple Camera Operation Requires Computer with 2.4GHz Processor, 512MB Memory, 32MB Video Card, Windows® XP/2000 and Internet Explorer v6
- Internet Explorer Version 6.0 or Netscape Navigator Version 6.0 and Above (for configuration)

Introduction

Congratulations on your purchase of the DCS-1110 Internet Camera! The DCS-1110 is a versatile and unique solution for your small office or home. Unlike a PC Camera, the DCS-1110 is a stand-alone system with a built-in CPU and Web server that transmits high quality video images for monitoring. The DCS-1110 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-1110 also comes with remote monitoring capability for a complete and cost-effective solution.

Features

- **Simple to Use** - The DCS-1110 is a stand-alone system with a built-in CPU, requiring no special hardware or software such as PC frame grabber cards. The DCS-1110 supports ActiveX mode for Internet Explorer. All that is required is a computer with Internet Explorer 6.0 or above.
- **Supports a Variety of Platforms** - Supporting TCP/IP networking, HTTP, and other Internet related protocols. It can also be integrated easily into other Internet/Intranet applications because of its standards-based features.
- **Remote Snapshot Images and Recording** - Using the snapshot and recording features, you can save snapshots and record video and audio directly from the Web browser to a local hard drive without installing any software, making it convenient to instantly capture any moment from a remote location.
- **Record Directly to a NAS** - The DCS-1110 allows you to record directly to a local network area storage device without the use of a dedicated PC for storing recorded video.
- **Low Light Recording** - The DCS-1110's 0.5 lux light sensitivity allows you to capture video in rooms with minimal lighting, making it ideal for use at night time.
- **PoE Support** - The DCS-1110 supports traditional wired transmission, making the DCS-1110 easy to integrate into your existing network environment. The DCS-1110 works with a 10Mbps Ethernet based network or 100Mbps Fast Ethernet based network. With support for 802.3af Power over Ethernet (PoE), the DCS-1110 works with a compatible PoE power injector or PoE switch. This eliminates the need for mounting the camera near a power supply.
- **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-1110 at anytime from anywhere in the world!

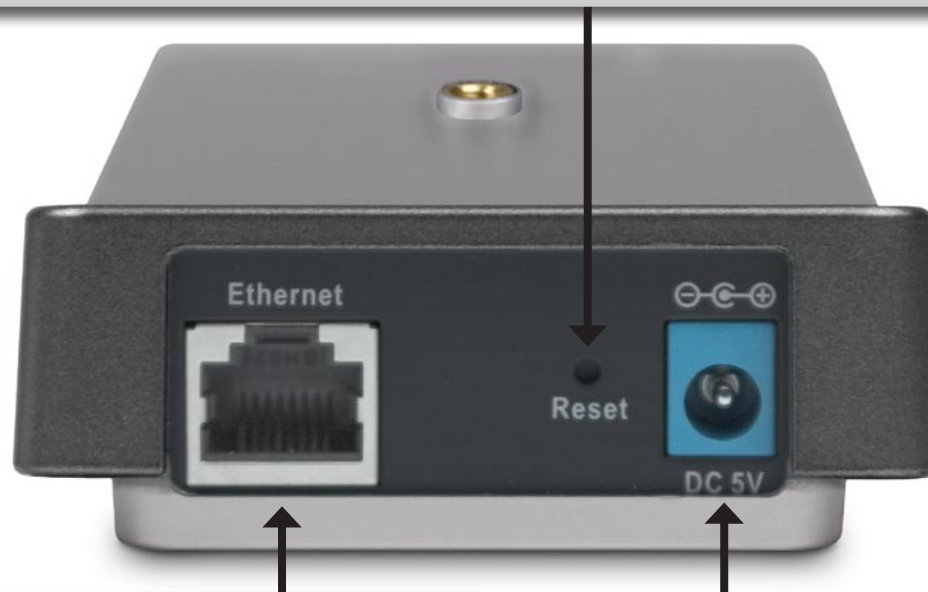
- **Remote Monitoring Utility** - The IPView SE application adds enhanced features and functionality for the Internet Camera and allows administrators to configure and access the Internet Camera from a remote site via Intranet or Internet. Other features include image monitoring, recording images to 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

Reset Button

Reset will be initiated when the reset button is pressed once and Power LED begins to flash. Factory Reset will be initiated when the reset button is pressed continuously for ten seconds. Release the reset button and the Power LED will begin to flash indicating that the DCS-1110's settings are reverting back to the factory settings. The IP address will also return to the default settings with DHCP selected.



Ethernet Cable Connector

The DCS-1110 features an RJ-45 connector for connections to 10Base-T Ethernet cabling or 100Base-TX Fast Ethernet cabling. The port supports 802.3af Power over Ethernet (PoE) and the NWay protocol, allowing the DCS-1110 to automatically detect or negotiate the transmission speed of the network. The port also supports MDI/X, which allows the use of either straight through or cross-over cables.

DC Power Connector

The DC power input connector is labeled **DC 5V** with a single jack socket to supply power to the DCS-1110. The power supply is optional if PoE is used.

Hardware Overview

LEDs

Link LED

The Link LED is positioned on the right side of the DCS-1110's lens. It is located to the right of the Power LED. Steady orange confirms a good connection to the LAN. Depending on the data traffic, the LED will begin to flash to indicate that the DCS-1110 is receiving/transceiving from/to the LAN network.



Power LED

The Power LED is positioned on the right side of the DCS-1110 lens. Steady blue confirms that the DCS-1110 is powered **ON**.

Hardware Installation

Attach the External Power Supply

Attach the external power supply to the DC power input connector located on the rear panel of the DCS-1110 and connect it to your local power supply. *Note:* Power source is confirmed when the blue LED Power Indicator located to the right of the lens on the DCS-1110 is illuminated.

Note: The power supply is optional if the PoE (Power over Ethernet) is used.



Connect the Ethernet Cable

Connect the included Ethernet cable to the network cable connector located on the back panel of the DCS-1110 and attach it to the network. Network Connectivity is confirmed when the orange LED Indicator on the DCS-1110 located left of the Power LED is illuminated.



Security

To ensure the highest security and prevent unauthorized usage of the DCS-1110, the Administrator has the exclusive privilege to authorize all users. The DCS-1110 supports multi-level password protection/access that can be restricted by the Administrator for defined users who have a **User Name** and **User Password**.

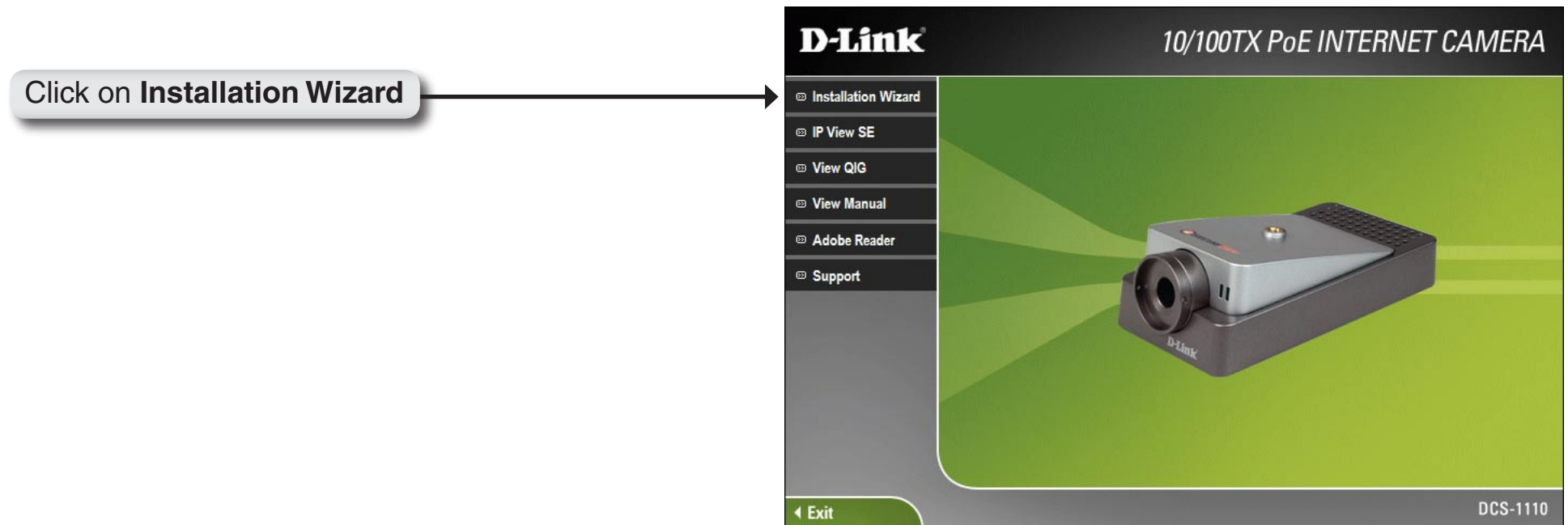
The Administrator can release a public **User Name** and **Password** so that when remote users access the DCS-1110 they will be allowed to view the images transmitted by the DCS-1110.

Note: When the DCS-1110 is used for the first time, it is highly recommended that the Administrator set the **Admin ID** and **Admin Password** to constrain user access to the DCS-1110 since the Default settings for the **Admin ID** and **Admin Password** are both “admin.” Once the ID and Password are defined, only the Administrator has access to the management of the DCS-1110. This procedure should be done as soon as possible.

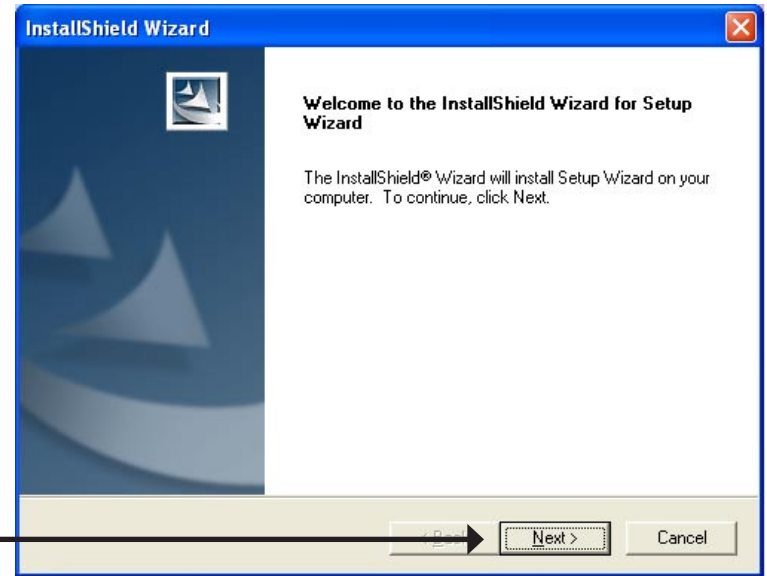
Using the Setup Wizard

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

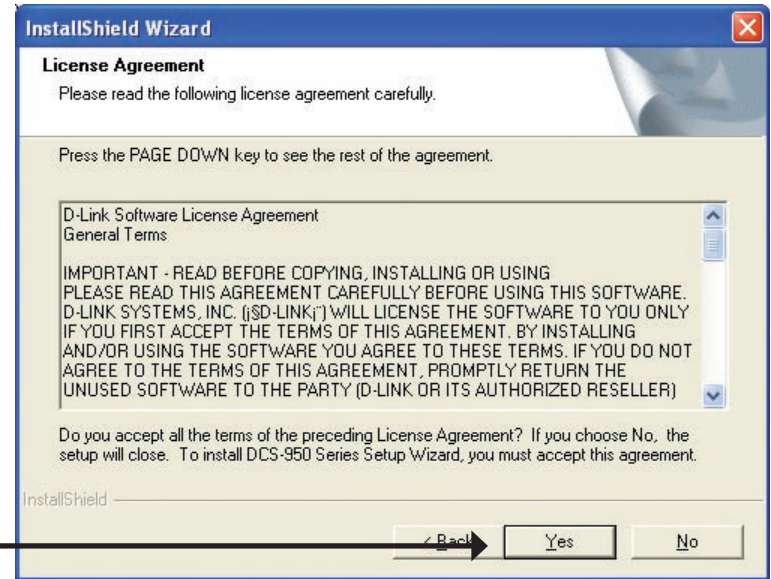
Insert the **D-Link DCS-1110** CD into your CD-ROM drive.



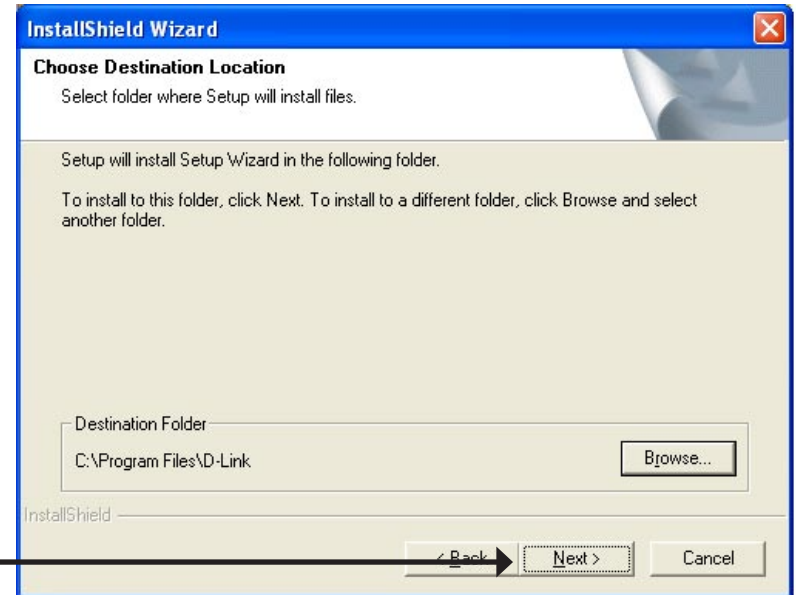
Click Next



Click Yes



Click Next



Click Finish



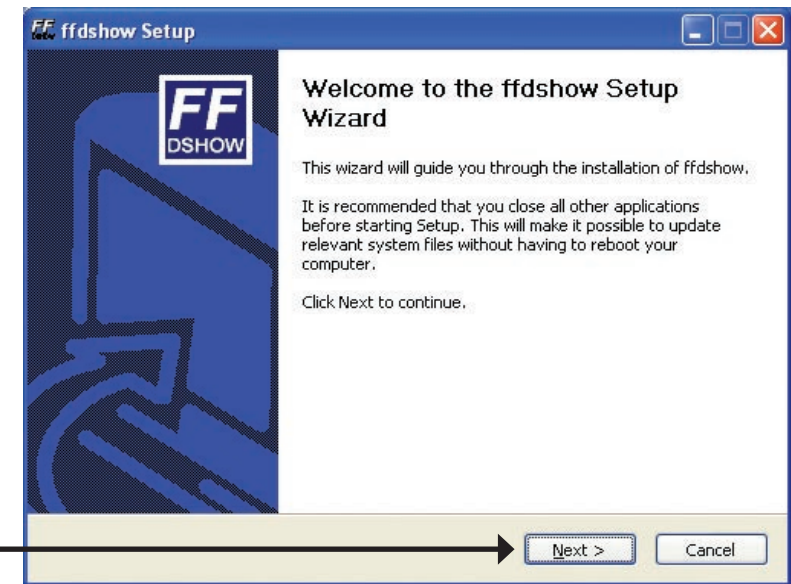
Now you should install **ffdshow**, this will install the proper codec that will allow you to playback recorded video taken by the DCS-1110.

Select a language.

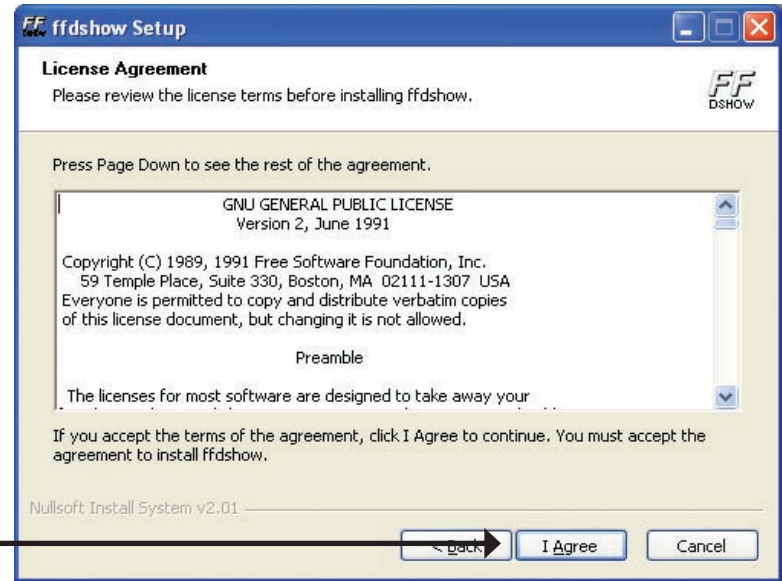
Click **OK**



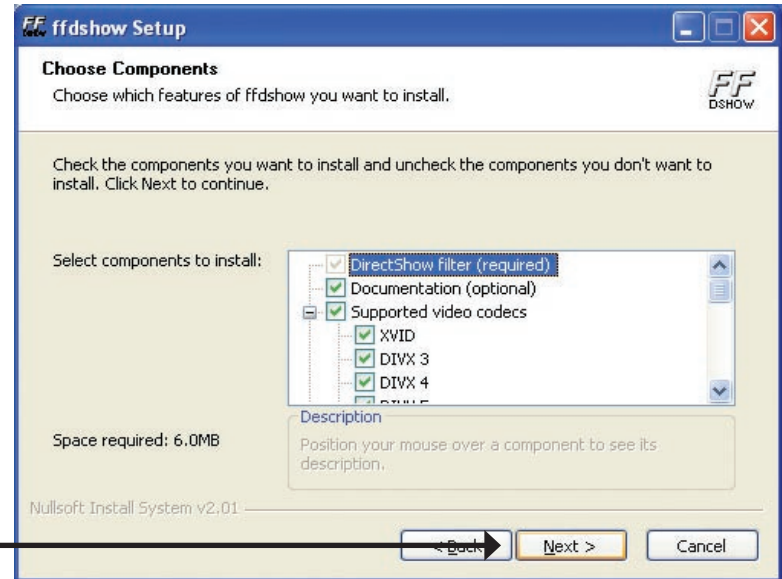
Click **Next**



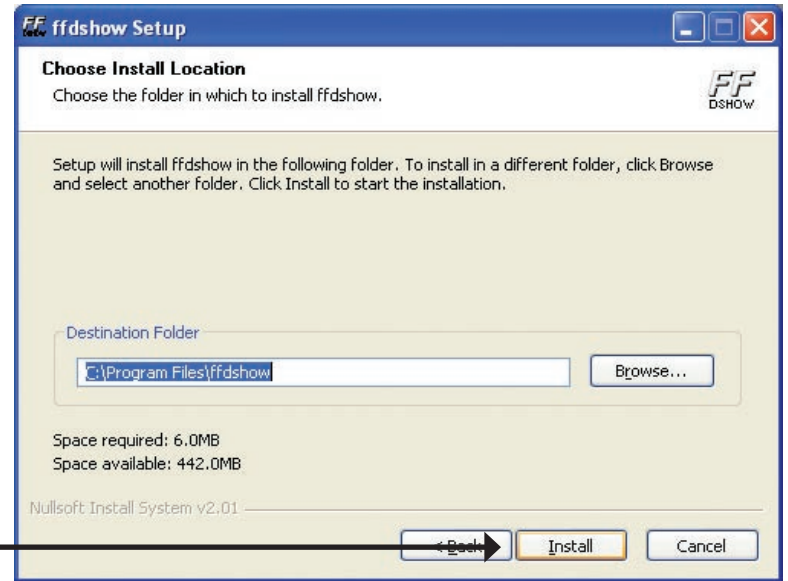
Click I Agree



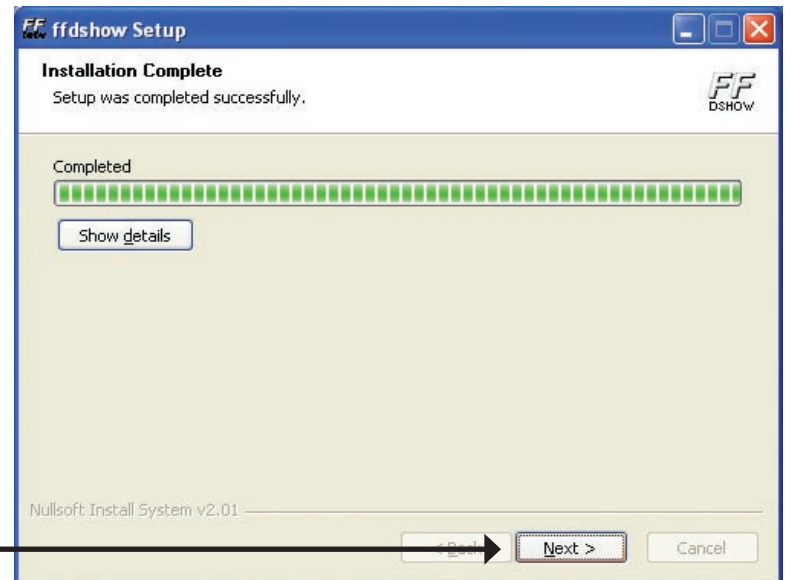
Click Next

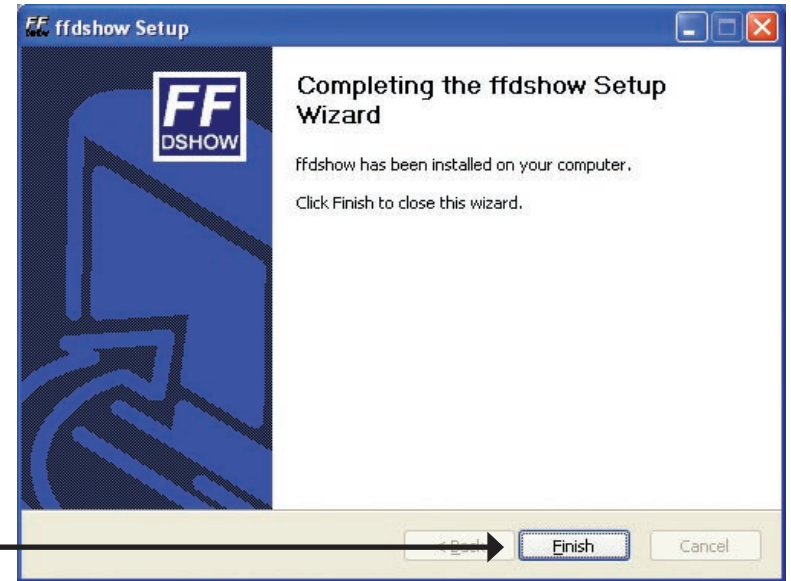


Click Install



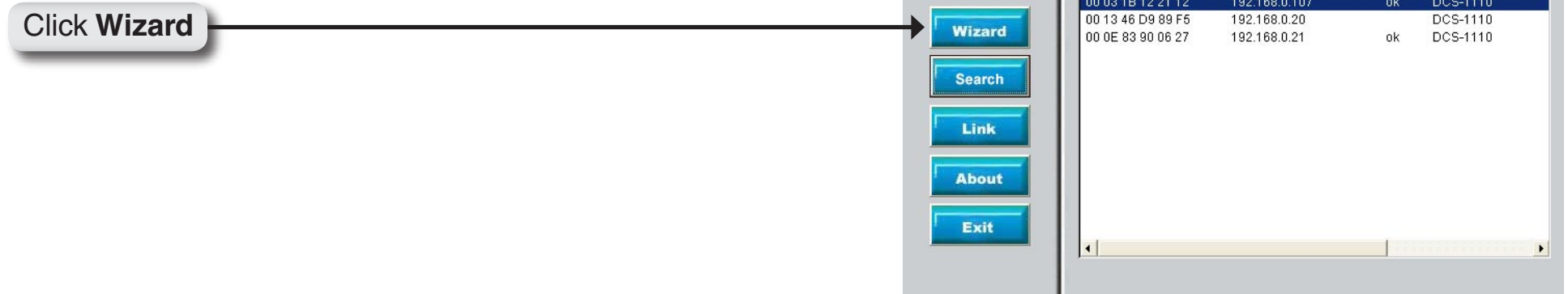
Click Next





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

Select the camera you want to setup and click **Wizard**.





Click **Next**

This page shows the current network settings of the camera.

Click **Next** to continue.



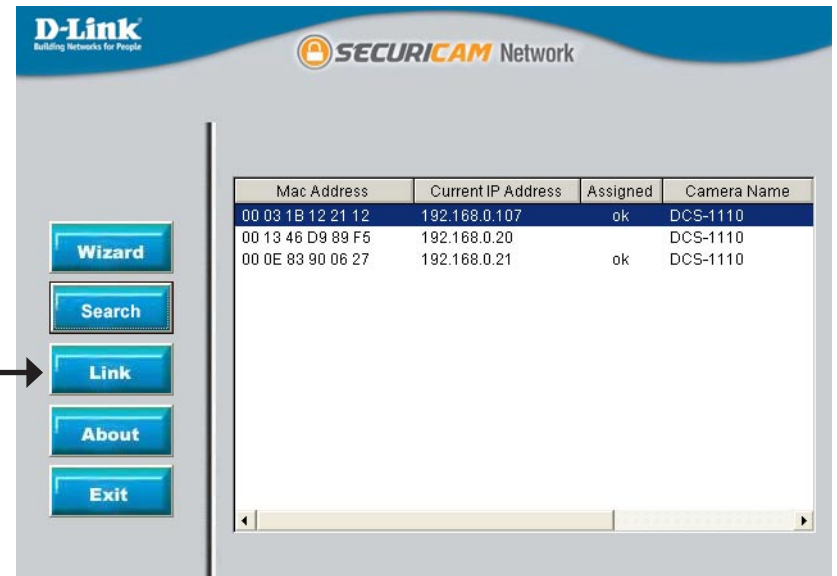
Click **Next**



Click **Restart**

Click **Link** to open a web-browser and access the configuration utility. (see page 21)

Click **Link**



Using the Configuration Menu

To access the configuration utility, open a web-browser such as Internet Explorer and enter the IP address that you assigned to the DCS-1110. Click **Go**. In this example, the IP address is 192.168.0.100.



Enter the user name and password. The factory default username and password are both **admin**.



Click **Apply**



Home

Wizard: This page is used to set up the DCS-1110 using the Wizard to walk you through setting up the camera for your network.

Setup: This will allow you to change the configuration settings of the DCS-1110.

Audio On: This will turn on the built-in microphone on the DCS-1110. By default the audio is turned off.

Upside Down: This will flip the image vertically. This feature can be used if you choose to mount the DCS-1110 upside down on the ceiling.

Mirrored: Sets the measurable difference between two sequential images that would indicate motion. This will allow you to change the configuration settings.

Snapshot: Click to capture a snapshot image. The image will pop up in a new window. This image can be saved to a local hard drive.



Logout: Click to log out of the DCS-1110. If you would like to view or configure the camera, you will need to log in again.

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.

Nightshot: Select this if the camera is operating under low light conditions. In this setting, the DCS-1110 will be able to view at 0.5 Lux.

Brightness: There are 11 settings ranging from -5 to +5. From -5, the darkest setting to +5 the brightest setting. After selecting your setting, please wait a few seconds for the camera to adjust accordingly.

File Path: The DCS-1110 is able to record video from the Web Browser into a local hard drive of the PC that is viewing it. This path can be specified (for example, c:\dcs1110\myrecording).

Start Video Recording: Clicking this button will start recording video and audio immediately to the file path specified above.

Advanced Video

Default Level

Quality: Select the viewing video quality. By default the quality is set to High.

Capture Resolution: This is the size of the video display. By default the capture resolution is set to VGA (640x480).

Custom Level

Capture Resolution: This is the size of the video display. By default the capture resolution is set to VGA (640x480).

Frame Rate: This is the refresh frame rate. By default the frame rate is set to 15 frames per second (fps).

Bit Rate: The higher the bit-rate the better the picture quality, but at the same time the file size will also be larger. For a low bandwidth network, a lower bit rate than 352k is advised.

Camera Name: This name will appear on the log-in screen.

The screenshot displays the D-Link Securicam Network configuration page for the DCS-1110 camera. The interface is titled "D-Link Building Networks for People" and "SECURICAM Network 10/100 TX PoE Internet Camera". The navigation menu includes Home, Advanced (selected), Tools, Status, and Help. On the left, there is a sidebar with buttons for Video (highlighted), User, LAN, PPPoE, DDNS, URL JPG, and Logout. The main content area shows "Camera image setting" with two radio buttons: "Default" (selected) and "Custom". Under "Default", the settings are: Quality (High), Capture Resolution (VGA(640X480)), Frame Rate (fps) (15), Bit Rate (1 Kbps), and Camera Name (DCS-1110). Under "Custom", the settings are: Capture Resolution (VGA(640X480)), Frame Rate (fps) (15), Bit Rate (1 Kbps), and Camera Name (DCS-1110). Below these settings, there is a "Light Frequency" section with radio buttons for 50 HZ and 60 HZ. At the bottom right, there are three icons: a green checkmark for "Apply", an orange 'X' for "Cancel", and a red plus sign for "Help".

User

User Name: Enter the user name in this field. A maximum of 32 user names are allowed, however each user name must be different. The maximum length for the User Name is 16 characters (Printable ASCII).

Password: Enter the user's password you want to assign to the specific Username. The maximum password length is 16 characters (Printable ASCII).

User List: The User List displays all the user names that have access to the DCS-1110. To delete a user, click on the corresponding trash can icon.

D-Link
Building Networks for People

SECURICAM Network
10/100 TX PoE Internet Camera

DCS-1110

Video
User
LAN
PPPoE
DDNS
URL JPG
Logout

Home Advanced Tools Status Help

User Account Settings
User account settings permit certain users to access the camera.

User Name

Password

Confirm Password

Apply Cancel Help

User List

No.	User Name	Modify	Delete
1	admin		
2	guest		

LAN

LAN Settings: If you are using a LAN connection, select either Static IP or DHCP Client. If you are manually assigning a Static IP, enter your IP Address, IP Subnet Mask, Gateway IP Address, and DNS into the fields provided. If you are using a DHCP network, you may choose DHCP client and the IP address, IP subnet mask, Gateway and DNS fields will be filled in automatically.

D-Link
Building Networks for People

SECURICAM Network
10/100 TX PoE Internet Camera

DCS-1110

Video
User
LAN
PPPoE
DDNS
URL JPG
Logout

Home **Advanced** Tools Status Help

LAN Settings
The IP address of the Camera


DHCP Client
 Static IP

IP Address: 192.168.0.100
Subnet Mask: 255.255.255.0
Default Gateway: 192.168.0.1
DNS: 192.168.0.1
67.130.140.2

Apply Cancel Help

PPPoE

PPPoE: If you are using a PPPoE connection, click the **Yes** button and enter the User Name and Password for your PPPoE account.



The screenshot displays the web interface for a D-Link DCS-1110 camera. The top navigation bar includes 'Home', 'Advanced' (highlighted), 'Tools', 'Status', and 'Help'. The main content area is titled 'PPPoE Settings' and features a radio button selection for 'Yes' and 'No', with 'No' selected. Below this are input fields for 'User name' and 'Password'. At the bottom right, there are three buttons: 'Apply' (with a green checkmark icon), 'Cancel' (with an orange 'X' icon), and 'Help' (with a red plus icon).

D-Link Building Networks for People

SECURICAM Network
10/100 TX PoE Internet Camera

Home Advanced Tools Status Help

DCS-1110

Video
User
LAN
PPPoE
DDNS
URL JPG
Logout

PPPoE Settings

Yes No

User name

Password

Apply Cancel Help

DDNS

DDNS: Dynamic DNS (Domain Name Service) is a method of keeping a domain name linked to a changing (dynamic) IP address. 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-1110, you can set up your DDNS service and the DCS-1110 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, click the **Yes** button and enter in your User Name, Password, and Domain Name.

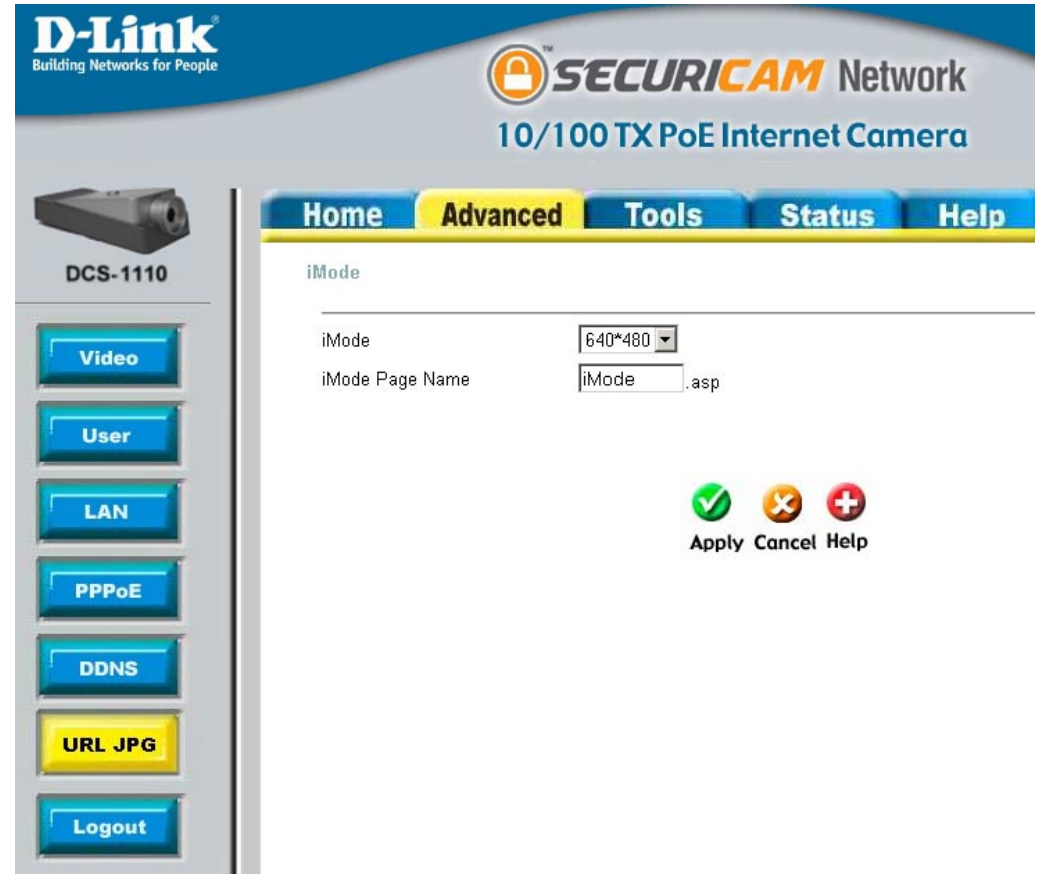


The screenshot displays the web interface for the D-Link DCS-1110 camera. The top header includes the D-Link logo and the product name "SECURICAM Network 10/100 TX PoE Internet Camera". A navigation menu at the top right contains "Home", "Advanced", "Tools", "Status", and "Help". On the left side, there is a sidebar with a camera image labeled "DCS-1110" and a vertical menu of buttons: "Video", "User", "LAN", "PPPoE", "DDNS" (highlighted in yellow), "URL JPG", and "Logout". The main content area is titled "Dynamic DNS Settings" and features a radio button selection for "Yes" and "No", with "No" selected. Below this are three input fields for "User name", "Password", and "Domain name". At the bottom right of the form, there are three icons: a green checkmark for "Apply", an orange 'X' for "Cancel", and a red plus sign for "Help".

URL JPG

iMode: Adjust the resolution for the picture.

iMode Page Name: Specify the file name for the URL. The default setting is “iMode”. The URL will be: **http://IP_Address_of_camera/iMode.asp**



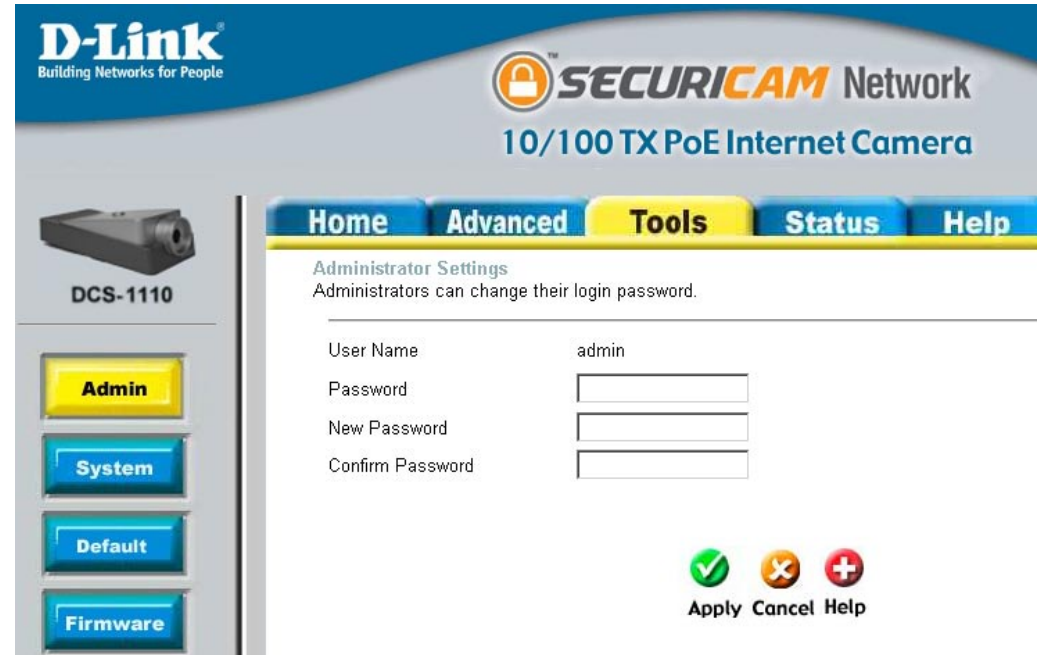
Tools Admin

User Name: Enter the administrator user name (admin).

Password: Enter the current password.

New Password: Enter the new administrator password with a maximum length of 16 (printable ASCII) characters.

Confirm Password: Confirm the new password by entering it again.



System

Time: The current camera time.

Date: The current camera date.

Default NTP Server: Enter the IP address or domain name of the time server. Leaving the box blank will connect the camera to default time servers. This is optional. Press **Set Time** to set the time to the NTP server.

Synchronize with computer time: Synchronize the date and time of the camera with the local computer. Press **Set Time** to update the camera time with the PC's time.

Set the Time: Manually set the time by selecting the Year, Month, Day, Hour, Minute, and Second.

Time Zone: Used to adjust the hour of time servers for local settings.

Daylight Saving Time: Used to adjust for Daylight Saving Time if applicable in your region.

D-Link
Building Networks for People

SECURICAM Network
10/100 TX PoE Internet Camera

Home Advanced **Tools** Status Help

System
Set the Camera system time.

Time 10 : 08 : 43 Date 2006 / 01 / 10

Default NTP Server (optional)

Synchronize with the computer time

Set the Time Year Month Day
Hour Minute Second

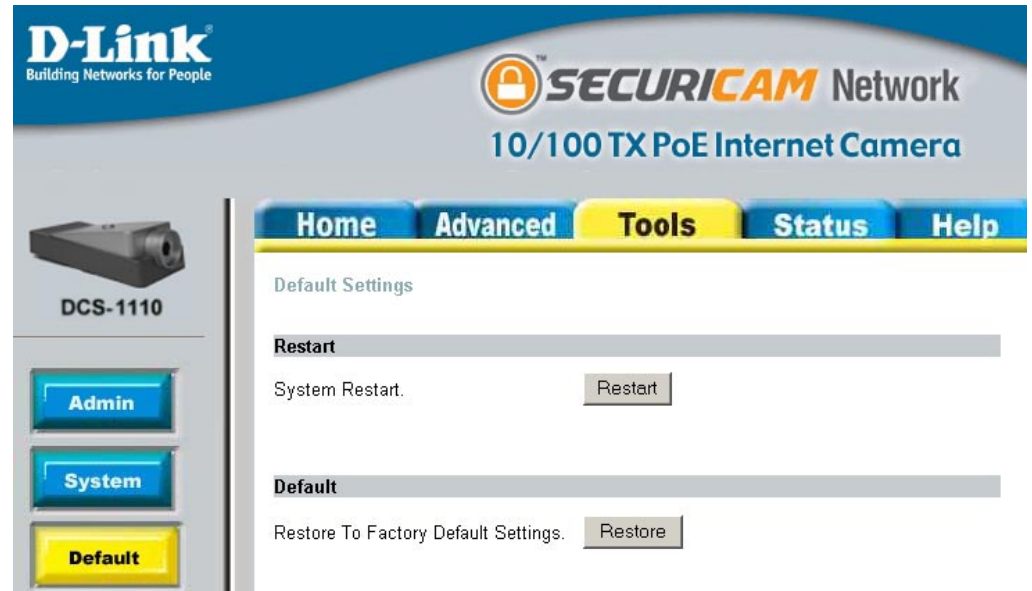
Time Zone

Daylight Saving Time

Default

Restart: Click the **Restart** button to restart the camera system.

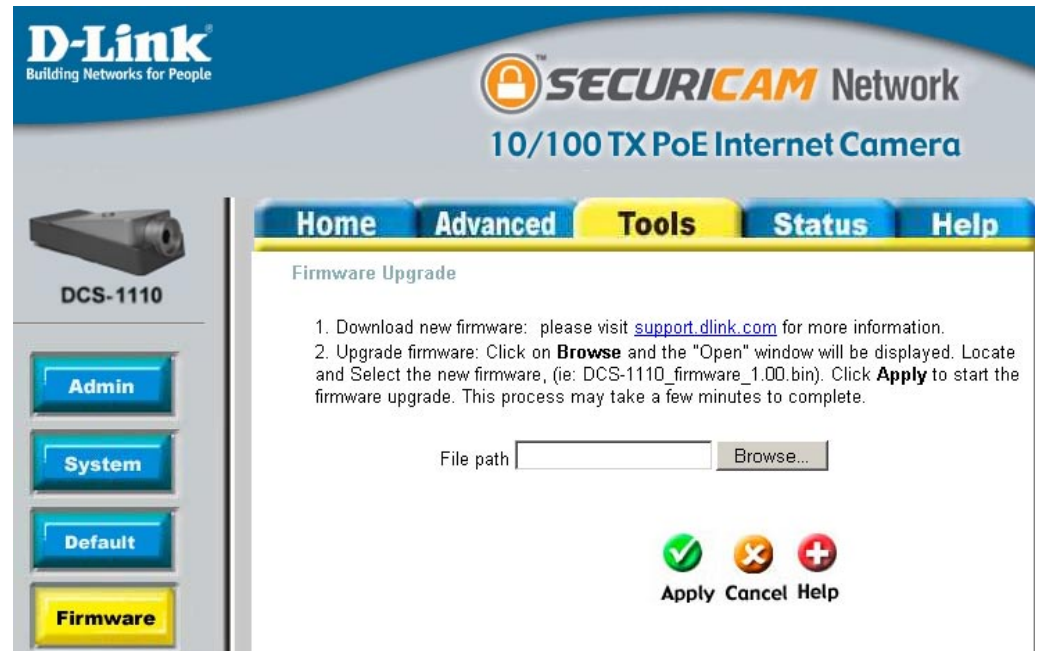
Default: Click the **Restore** button to restore factory default settings. This means that any changes made will be lost and the system will be reset to the initial status when shipped from the factory.



Firmware

You can upgrade the firmware by using this tool. 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 to be used for the update. Upgrading the firmware will not change any of your system settings.

Browse: After you have downloaded the new firmware, click **Browse** to locate the firmware update on your hard drive. Click **Apply** to complete the firmware upgrade.



Recording

Upload Image to Network Share Folder: Clicking on the box will enable uploading of images to your network storage device.

Login Method: Select either Anonymous or Account. By selecting Anonymous, no user name or password is required. If you select Account from the drop down menu, you will need to know the Username and Password to access the shared folder.

User Name: Enter the user name required to access the storage device.

Password: Enter the password required to access the storage device.

Path: Enter the path that points to the shared folder i.e. \\DNS-G121\share.

Always: Select to record all the time.

Schedule: Select to record according to a schedule.

Smart Recording: Allows you to only save files in which movement is detected. After the set **Save Time**, only one frame will be recorded when no movement is detected. Click **Skip Empty File** if you do not want to save the single frame files when no motion is detected.

The screenshot shows the D-Link Securicam Network web interface for a DCS-1110 camera. The interface includes a navigation menu with 'Home', 'Advanced', 'Tools', 'Status', and 'Help'. The 'Tools' menu is selected, and the 'Remote Recording' configuration page is displayed. The page contains several sections: 'Remote Recording' with a checkbox for 'Upload video to Network share folder', 'Login Method' (set to 'Anonymous'), 'User Name' and 'Password' fields, and a 'Path' field containing '\\192.168.0.184\1110'. Below this is the 'Shared Folder Mode' section with radio buttons for 'None', 'Recording File Number' (set to 24), and 'Shared File Size' (set to 1000 MB). The 'Recording Method' section has radio buttons for 'Always', 'Schedule', and 'Smart Recording'. The 'Schedule' method includes a 'Day' selection (all days are selected) and 'Time' fields for 'Start' and 'Stop'. The 'Smart Recording' method has a checked 'Skip Empty File' option and a 'Save Time' field set to 5 seconds. A red warning message states 'Motion Detection function is disabled!'. At the bottom right, there are 'Apply', 'Cancel', and 'Help' buttons with corresponding icons.

Trigger

SMTP Login Name: The user name used to log into your e-mail account (e.g. jdoe or jdoe@yourisp.com depending on your ISP).

SMTP Password: The password used to log into your e-mail account. (The password will appear as dots instead of entered characters.)

SMTP (Mail) Server: The domain name or IP address of external mail server.

Return E-mail address: The return e-mail address to use if the snapshot or system log e-mail fails to send. (This address should be within the SMTP server's domain for authentication purposes.)

Recipient E-mail address: The e-mail address of recipients for snapshots or a system log file.

SMTP Port: This is the port number for your SMTP server, the default is 25. If you use a port other than 25 you can change it here.

Motion Detection Skip Time: Increasing the time set here will avoid false alarms. This option allows you to set the amount of time between motion detection events before the next recording will start.

The screenshot shows the D-Link Securicam Network web interface. The top navigation bar includes 'Home', 'Advanced', 'Tools' (highlighted), 'Status', and 'Help'. Below the navigation bar, there is a 'Send E-mail' section with the following fields and options:

- By E-mail
- SMTP Login Name: NULL
- SMTP Password: jdoe
- SMTP (mail) Server: [Empty]
- Return E-mail Address: [Empty]
- Recipient E-mail Address: [Empty]
- SMTP Port: 25 (with a 'Test' button)
- Motion Detection Set Skip Time: 300 (second)

A red warning message states: **Motion Detection function is disabled!**

At the bottom right, there are three icons: a green checkmark (Apply), an orange 'X' (Cancel), and a red plus sign (Help).

Motion Detection

Motion: Click on the **Motion** button to enable motion detection.

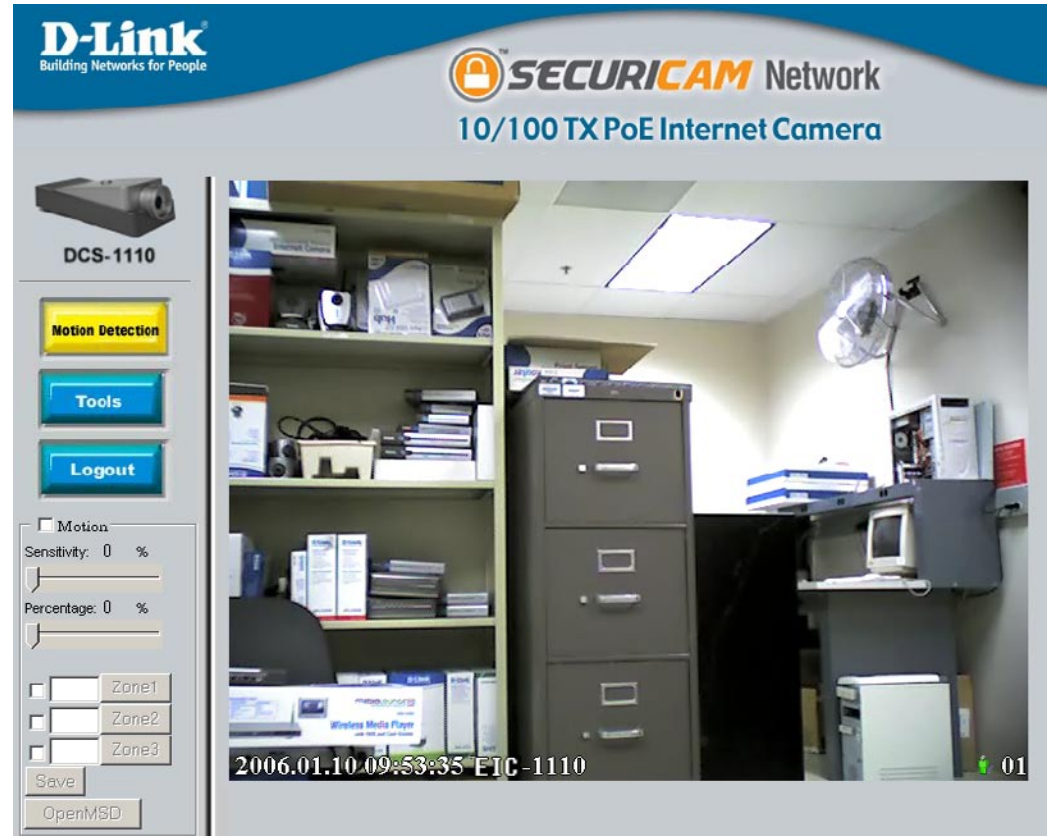
Sensitivity: Sets the measurable difference between two sequential images that would indicate motion.

Percentage: Sets the amount of motion in the window being monitored that is required to initiate a motion detected alert. If this is set to 100%, motion is detected within the whole window to trigger a snapshot. Note: Setting a higher sensitivity and a lower percentage makes any motion more easily detected.

Zone 1-3: Click to open the corresponding motion window. To assign a name to the window, enter the desired name in the entry field next to the zone button.

Save: Saves the related settings of that window.

Open MSD: Click to open the Motion Screen Display. The MSD window allows you to monitor the amount of motion detected in each motion window. The graphic bars will increase or decrease depending on the image variation. A blue bar means the image variation is under the monitoring level, and no motion detection alert is triggered. A red bar means the image variation is over the monitoring level and a motion detected alert is triggered.



Port

Web Port: This is the port that allows the user to connect to the camera's user interface. By default the port is set to 80. You may change the port number if using multiple cameras.

Note: If you wish to enable remote viewing of your camera, you **MUST** also set up your router/gateway for Port Mapping. Please refer to your router's instruction manual on how to open up ports. For additional help on configuring your camera to work with your router, please refer to the next section on setting up your camera for use with a router. For installing multiple cameras, **ONE** port per camera must be opened on your router, the Web server (HTTP) port.

AV Control Port: This is the port that allows the user to connect to the camera and synchronize the audio and video. By default the port is set to 5000. You may change the port number if using multiple cameras.

AV Streaming Port: This is the port used to stream video. By default the port is set to 5001. You may change the port number if using multiple cameras.

The screenshot shows the D-Link Securicam Network web interface for a 10/100 TX PoE Internet Camera. The interface includes a navigation menu with 'Home', 'Advanced', 'Tools', 'Status', and 'Help'. The 'Tools' menu is selected, leading to the 'Port Assignment' configuration page. On the left side, there is a sidebar with a camera image labeled 'DCS-1110' and a vertical menu of buttons: 'Admin', 'System', 'Default', 'Firmware', 'Recording', 'Trigger', 'Motion Detection', 'Port' (highlighted in yellow), and 'Logout'. The main content area displays the following configuration table:

Port Assignment	
Web Port	<input type="text" value="83"/>
AV Control Port	<input type="text" value="5000"/>
AV Streaming Port	<input type="text" value="5001"/>
IP View Port	<input type="text" value="5100"/>

Below the table are three action buttons: a green checkmark for 'Apply', an orange 'X' for 'Cancel', and a red plus sign for 'Help'.

IP View Port: This is the port used to stream the video from IPView program. It can be set to a port other than the default TCP port 5100.

Status Device Info

The Device Info screen lists the settings that are currently set for the DCS-1110

The screenshot displays the web interface for a D-Link DCS-1110 camera. The top header features the D-Link logo and the product name 'SECURICAM Network 10/100 TX PoE Internet Camera'. A navigation bar includes 'Home', 'Advanced', 'Tools', 'Status' (highlighted), and 'Help'. On the left sidebar, there is a device image, the model number 'DCS-1110', and buttons for 'Device Info' and 'Logout'. The main content area shows the 'Device Information' section with the following data:

Section	Parameter	Value
LAN Status	IP Address:	192.168.0.100
	IP Subnet Mask:	255.255.255.0
	Gateway IP Address:	192.168.0.1
PPPoE Status	PPPoE:	OFF
Server Status	Server Name:	DCS-1110
	Firmware Version:	1.00
	On-Line User Numbers:	0

Help

Click on the Help tab to access descriptions of the particular function you need help with. The help screen is organized in the order of the tabs and then each menu item under that tab.



D-Link
Building Networks for People

SECURICAM Network
10/100 TX PoE Internet Camera

DCS-1110

Logout

Home Advanced Tools Status **Help**

HOME

- [Wizard](#)
- [Setup](#)
- [Brightness](#)
- [Audio On](#)
- [Upside Down](#)
- [Mirrored](#)
- [NightShot](#)
- [File Path](#)
- [Start Video Recording](#)
- [Stop Video Recording](#)
- [On Line User](#)

ADVANCED

- [Video - Camera Image Settings](#)
- [User](#)
- [LAN - LAN Setting](#)
- [PPPoE - PPPoE Settings](#)
- [DDNS](#)
- [URL_JPG](#)

TOOLS

- [Admin](#)
- [System](#)
- [Default](#)
- [Firmware](#)
- [Recording](#)
- [Trigger](#)
- [Motion Detection](#)
- [Port](#)

STATUS

- [Device Info](#)

Installing the DCS-1110 Behind a Router

1. Identify the Camera's IP Address

A local IP Address is required to configure your camera and to view your camera. The IP Address of the camera is located in the ADVANCED > LAN page. If you wish to use a different IP Address, be sure that the camera settings correspond to your network settings. The Default Gateway will be the IP Address of your router's Local IP Address. (i.e. 192.168.0.1 if you are using a D-Link router) **In this example, the camera's IP Address is 192.168.0.100.** Please refer to the screenshot to the right.



The screenshot displays the D-Link DCS-1110 camera's web interface. The top navigation bar includes 'Home', 'Advanced', 'Tools', 'Status', and 'Help'. The 'Advanced' tab is selected, and the 'LAN Settings' page is shown. The page title is 'SECURICAM Network 10/100 TX PoE Internet Camera'. The 'LAN Settings' section is titled 'The IP address of the Camera'. There are two radio buttons: 'DHCP Client' (selected) and 'Static IP'. Below this, there are five input fields: 'IP Address' (192.168.0.100), 'Subnet Mask' (255.255.255.0), 'Default Gateway' (192.168.0.1), and 'DNS' (67.130.140.2). The 'IP Address' field is circled in red. At the bottom right, there are three icons: a green checkmark, a yellow 'X', and a red plus sign, with the labels 'Apply', 'Cancel', and 'Help' below them.

Setting	Value
IP Address	192.168.0.100
Subnet Mask	255.255.255.0
Default Gateway	192.168.0.1
DNS	67.130.140.2

2. Identify the HTTP and AV Ports for the Camera

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.

The HTTP and AV ports are located in the TOOLS > PORT page. Please refer to the screenshot to the right. In this example, we assume the ISP has blocked the port 80. The HTTP port will be set to 83 instead of 80.

***IMPORTANT NOTE:** Some ISPs block traffic on commonly used ports like port 80 to disallow 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 83. If you are behind a residential gateway, you will need to open a corresponding port on your gateway as well. Not all gateways are the same, please refer to your gateway's user's manual for specific instructions on how to forward ports.

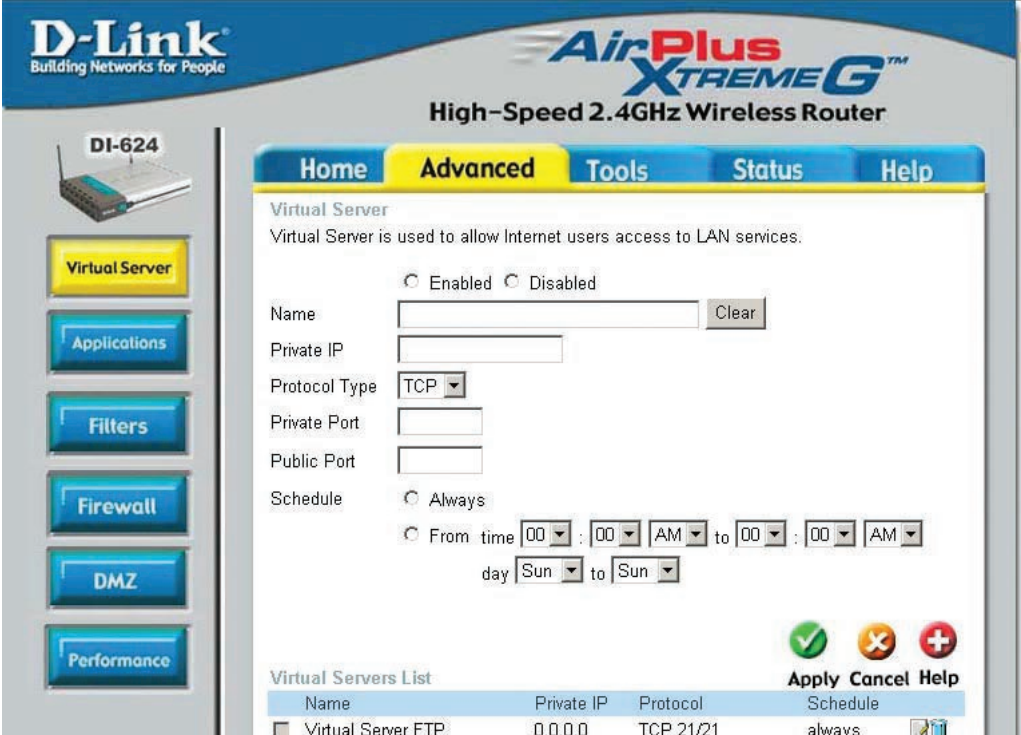
The screenshot displays the D-Link Securicam Network configuration interface for a 10/100 TX PoE Internet Camera. The interface includes a navigation menu on the left with buttons for Admin, System, Default, Firmware, Recording, Trigger, Motion Detection, Port (highlighted in yellow), and Logout. The main content area shows the 'Tools' tab selected, with a sub-tab for 'Port Assignment'. The port assignment table is as follows:

Port Name	Port Number
Web Port	83
AV Control Port	5000
AV Streaming Port	5001
IP View Port	5100

At the bottom right of the configuration area, there are three icons: a green checkmark for 'Apply', a red 'X' for 'Cancel', and a red plus sign for 'Help'.

3. Assigning and Opening Virtual Server Ports

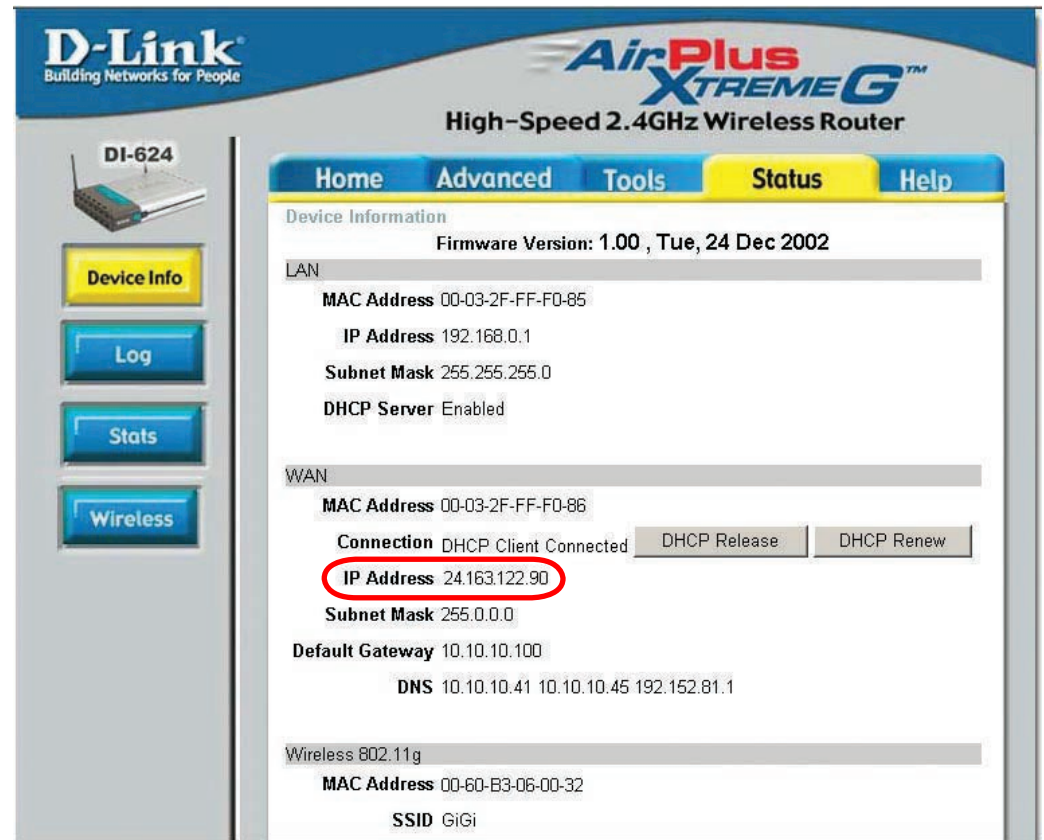
The Virtual Server Ports of your router must be opened for remote access to your camera. This is also referred to as port forwarding. The D-Link DI-624 is used as an example to clarify the configuration process. Please proceed as follows:

- Select **Enabled** to enable virtual server settings.
 - Select a camera name.
 - Enter your camera's Local IP Address in the **Private IP** field. (Example: 192.168.0.100)
 - Select **TCP** under **Protocol Type**.
 - If you are using the default camera port settings, enter 83 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. The AV Control Port and AV Streaming Port also need to be open. These ports are 5000 and 5001. Each camera will also require different control and streaming ports (5002, 5003,...etc).

4. Identify the Internet (WAN) IP Address

The D-Link DI-624 is used in this example. The WAN IP Address is located in the STATUS > DEVICE INFO page. In this example, the Internet (WAN) IP Address is **24.163.122.90**. Please refer to the screenshot to the right.

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. You can use DDNS to obtain an IP address, please refer to page 28 for more information.



The screenshot displays the web interface for a D-Link DI-624 AirPlus Xtreme G High-Speed 2.4GHz Wireless Router. The interface is in the 'Status' section, specifically the 'Device Information' page. The WAN IP Address is circled in red.

D-Link
Building Networks for People

AirPlus Xtreme G™
High-Speed 2.4GHz Wireless Router

DI-624

Device Info
Log
Stats
Wireless

Home Advanced Tools **Status** Help

Device Information
Firmware Version: 1.00 , Tue, 24 Dec 2002

LAN

MAC Address 00-03-2F-FF-F0-85
IP Address 192.168.0.1
Subnet Mask 255.255.255.0
DHCP Server Enabled

WAN

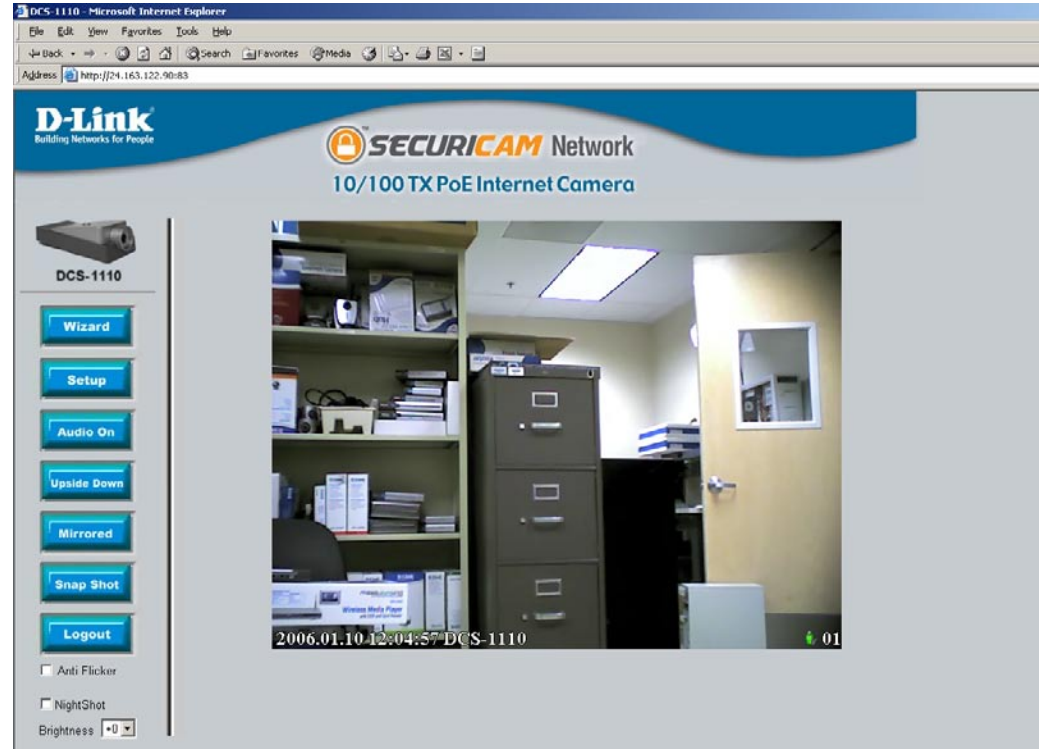
MAC Address 00-03-2F-FF-F0-86
Connection DHCP Client Connected DHCP Release DHCP Renew
IP Address 24.163.122.90
Subnet Mask 255.0.0.0
Default Gateway 10.10.10.100
DNS 10.10.10.41 10.10.10.45 192.152.81.1

Wireless 802.11g

MAC Address 00-60-B3-06-00-32
SSID GiGi

5. View Your Camera

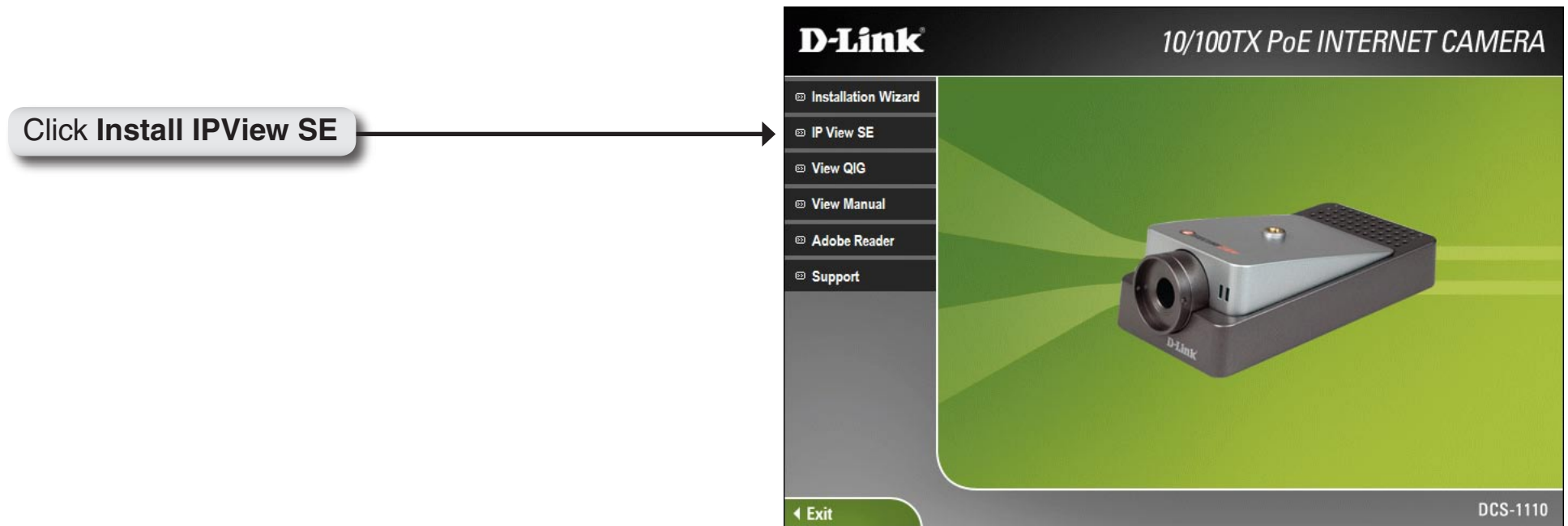
After all settings have been entered correctly, a user inside or outside of the network will have access to the camera through a standard web browser. To access from the internet, simply type in the Internet (WAN) IP Address of the router, followed by the HTTP port number. (**Example: `http://24.163.122.90:83`**) To access from a computer on your local (home) network, simply enter the local IP Address of your camera with the HTTP port. (e.x. `http://192.168.0.100:83`)



IPView SE Application Installation

IPView SE software is included for administrators to manage up to 4 DCS-1110s remotely. Administrators can also record to hard drive and configure advanced settings for the DCS-1110. IPView SE is a complete software management tool for the DCS-1110 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.

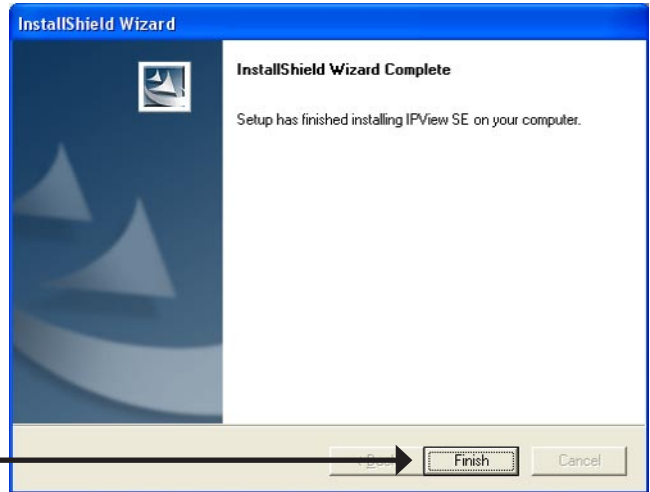




Click **Next**



Click **Finish**



After successfully installing the IPView SE, the application program for the DCS-1110 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-1110s from one location.

It is designed with a user-friendly interface for ease of control and navigation.



IPView SE Icon Description

- | | |
|---|---|
|  System Configure |  Zoom |
|  Connect/Disconnect |  Maximize |
|  Assign IP to a Camera |  Color Setting |
|  Liberate Camera |  Always on Top |
|  Camera's Extra Information |  Wake Up Control Panel |
|  Configure Camera from Web |  Upgrade Firmware |
|  Motion Setting | |
|  Manual Recording | |
|  Schedule Recording | |
|  Motion Recording | |
|  Scan | |
|  Combine | |
|  Play | |
|  Help/About | |
|  Minimize | |
|  Close | |
|  Rotate | |
|  Snapshot | |
|  View/List | |

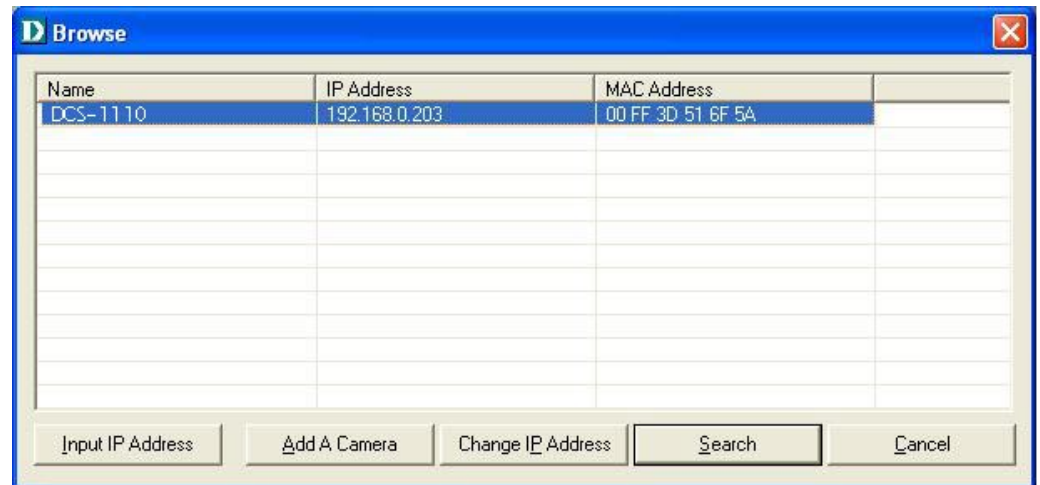
Add a New Camera

To add a new camera select the **Camera** button from the IPView SE. Make sure that the grey 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.



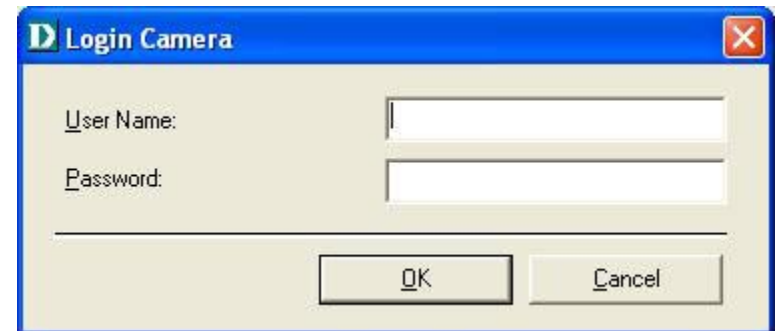
Note: Only cameras on your local area network can be located using **Search** in IPView SE. If you want to add a camera via the Internet, you must enter in a public IP Address. Please note that if your camera is behind a router, you will need to enter your router's WAN IP followed by a colon, then the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



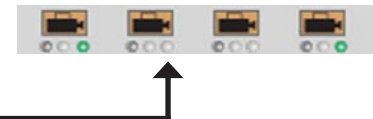
How to Delete a Camera

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 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.

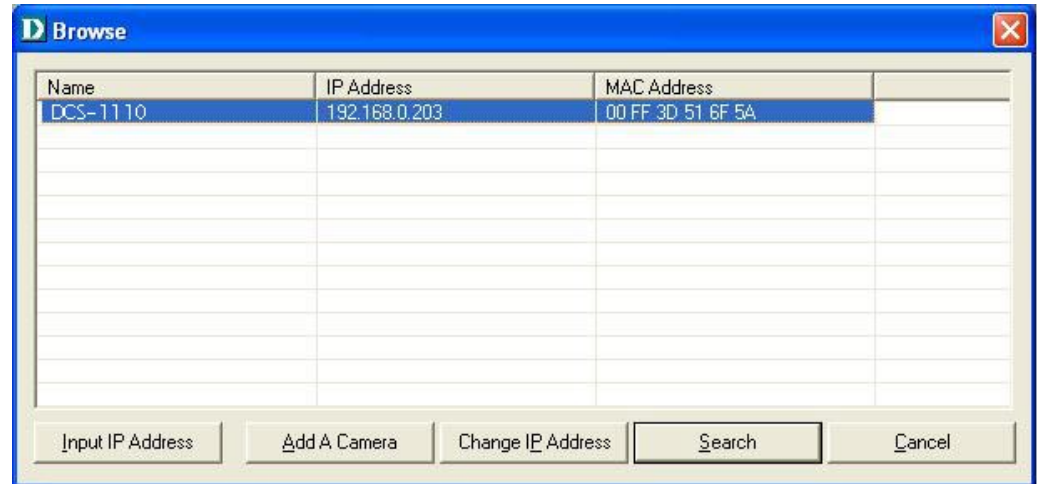


A grey light under the camera button means that this channel is available to add a camera.



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).




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

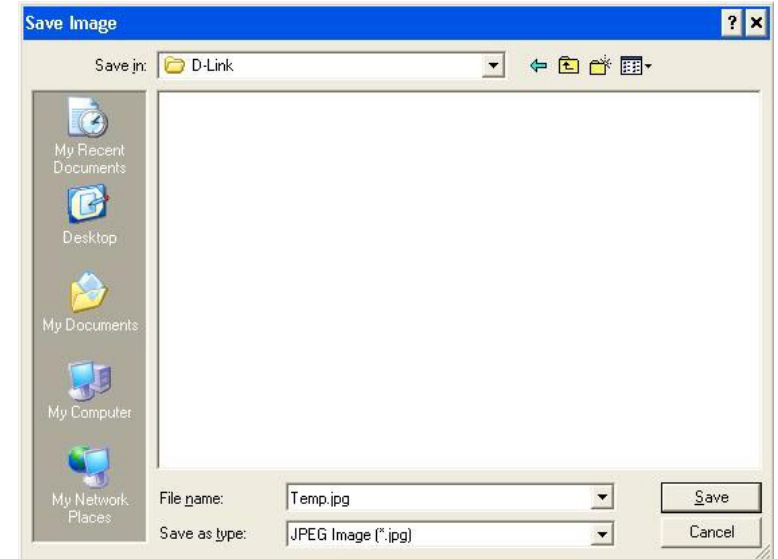
Click the **Always on Top** button  to have the display screen always appear on top.

Close


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

How to take a Snap-Shot with the Camera

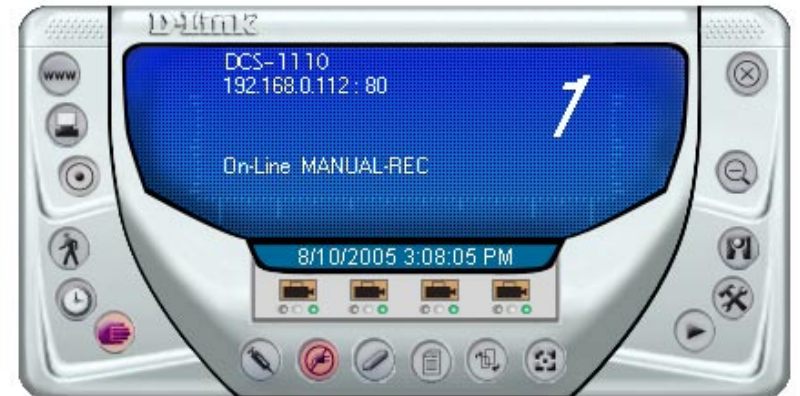
In View Mode format select the **Snapshot** button  located on the upper left corner of the screen. A Save Image dialog box will appear for you to save the snapshot picture.



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

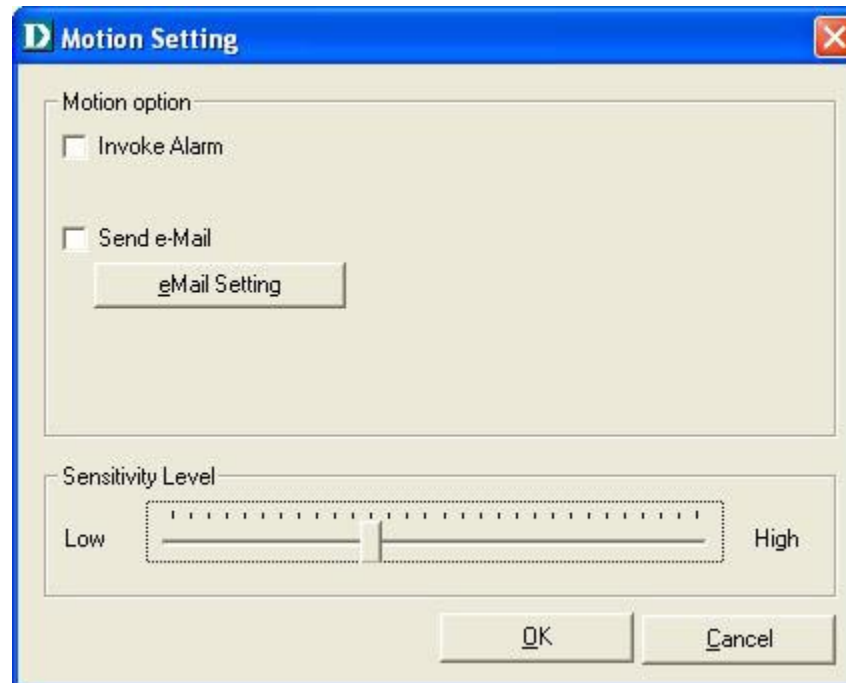
Once you have completed the initial configuration of the DCS-1110 using the Web-based interface, you can review or change your configuration using either the Web-based configuration utility or the Settings in the DCS-1110 IPView SE.

Configure Camera from Web


Click the **Configure Camera from Web** button  to start configuring your camera from the web again (see page 21).

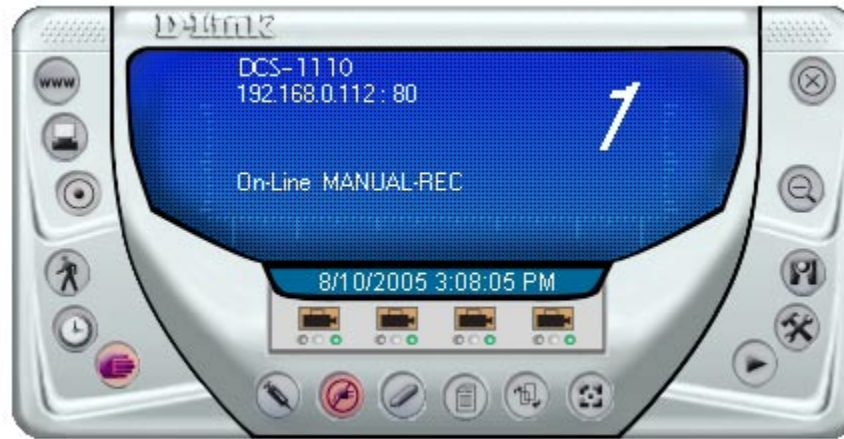
Motion Setting

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.




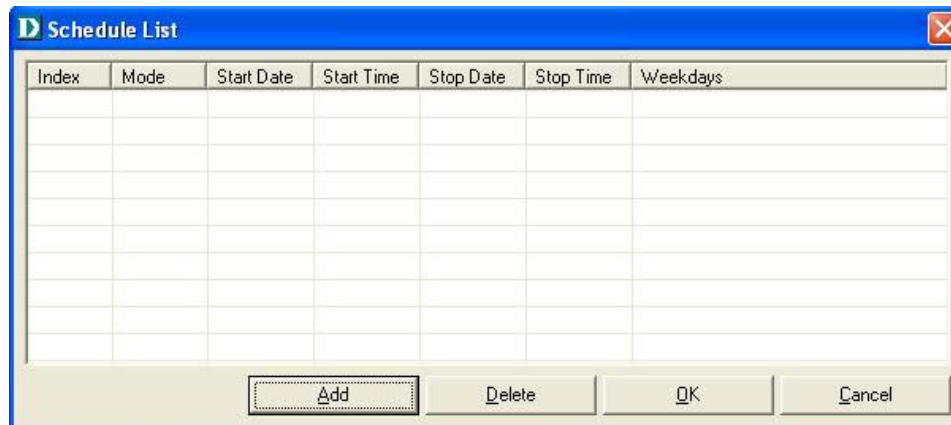
Manual Recording

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

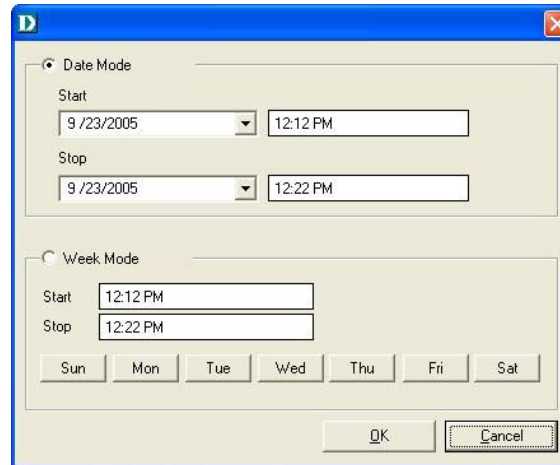


Schedule Recording



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 59).

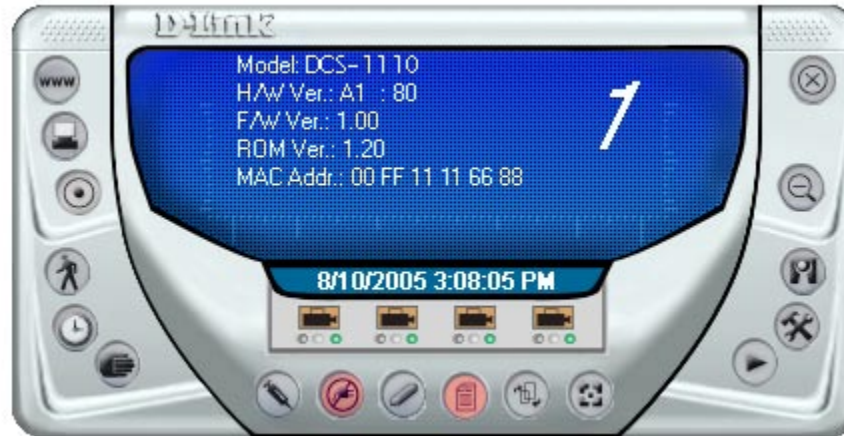


Scan

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.

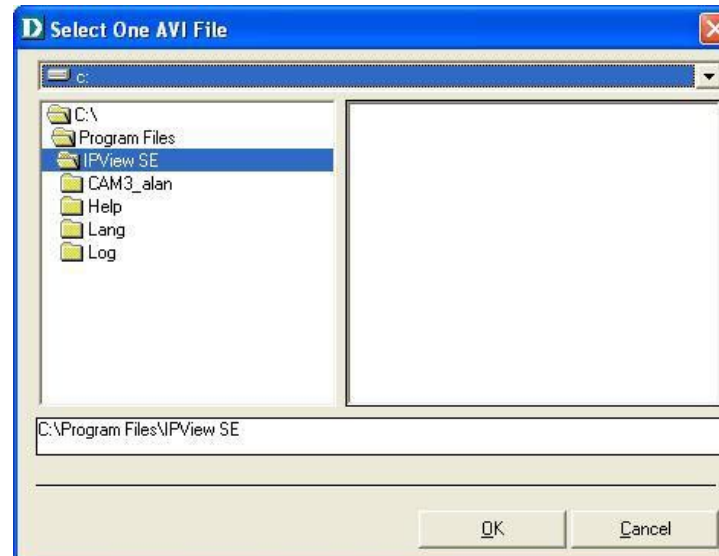
Camera's Extra Information

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



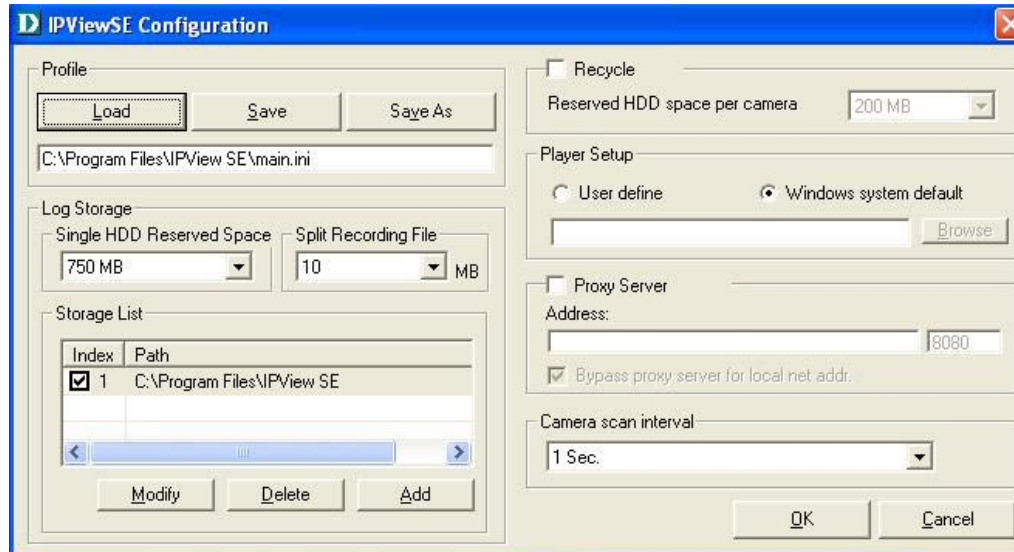
Play

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

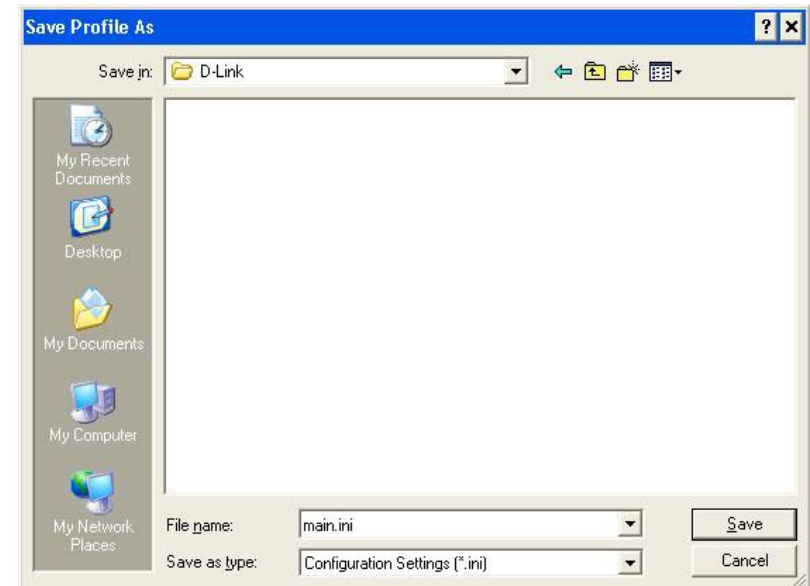


System Configure

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



Profile: The DCS-1110 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.

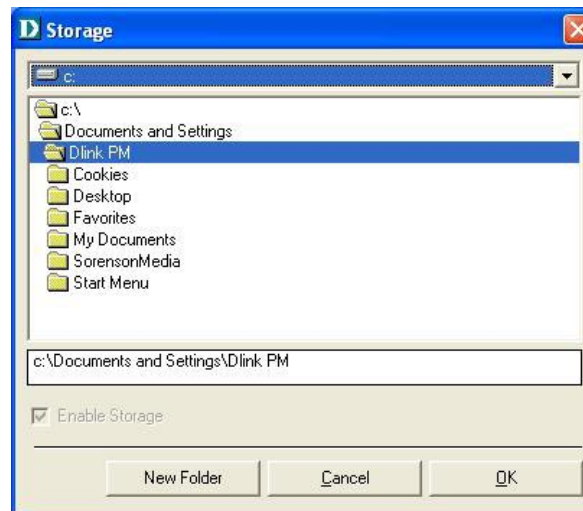


Log Storage: The **Single HDD Reserved Space** option permits reserved HDD space from 500 MB to 1000 MB.

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.*

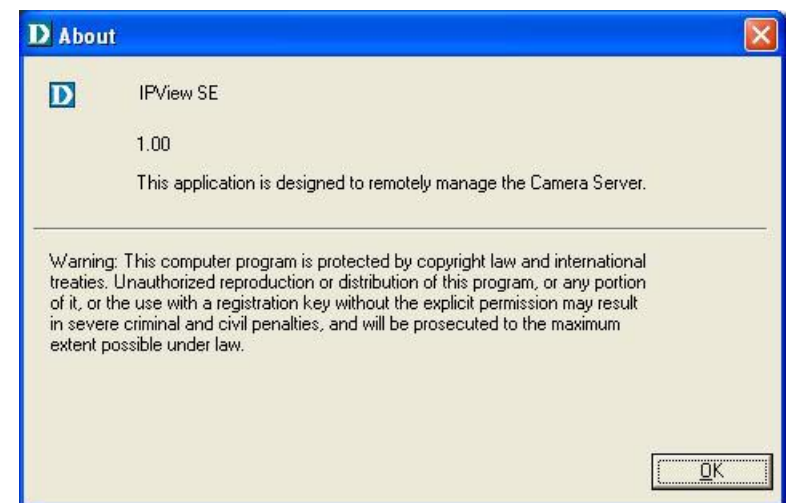
Player Setup: In this section you may choose between **Windows system default** or **User define** for the video player desired for playback of recorded video files. Selecting **User define** will allow you to Browse for your desired video player.

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.

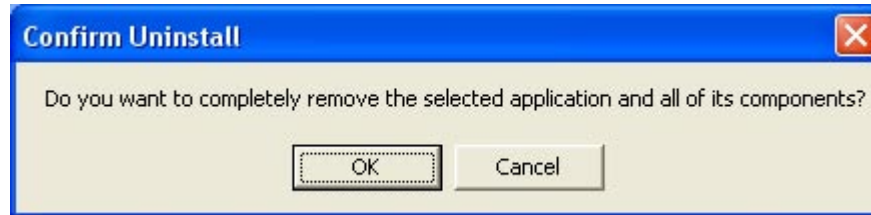
About

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

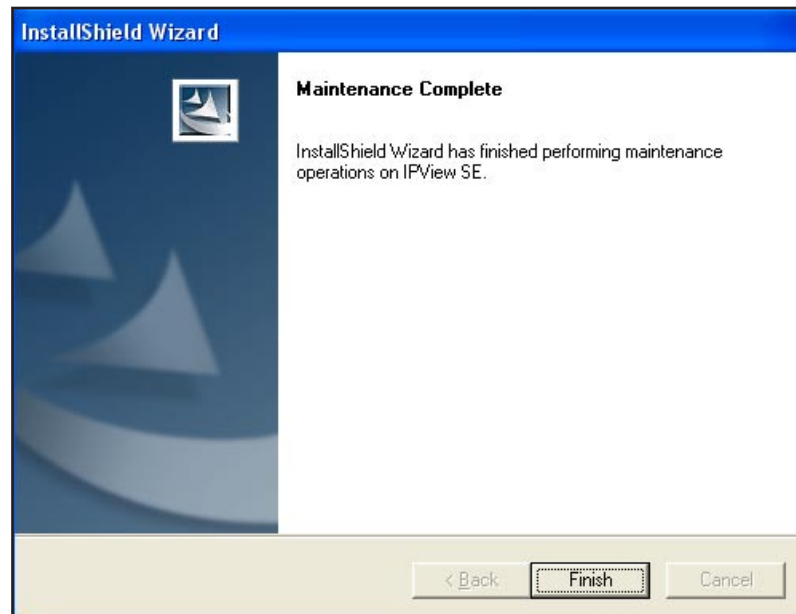


Uninstall IPView SE

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

Internet Camera Features

What is an Internet Camera?

The Internet Camera is a stand-alone 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 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.

What is the maximum number of users that can be allowed to access DCS-1110 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.

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.

Can I capture still images from the Internet Camera?

Yes you are able to capture still images with the snapshot function from the IPView Lite 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 or supported by wireless transmission. 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.

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 and verify that the power supply is well connected.

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.

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 41 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.

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 page 76.

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.

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

Make sure that your computers display properties are set to at least 16-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

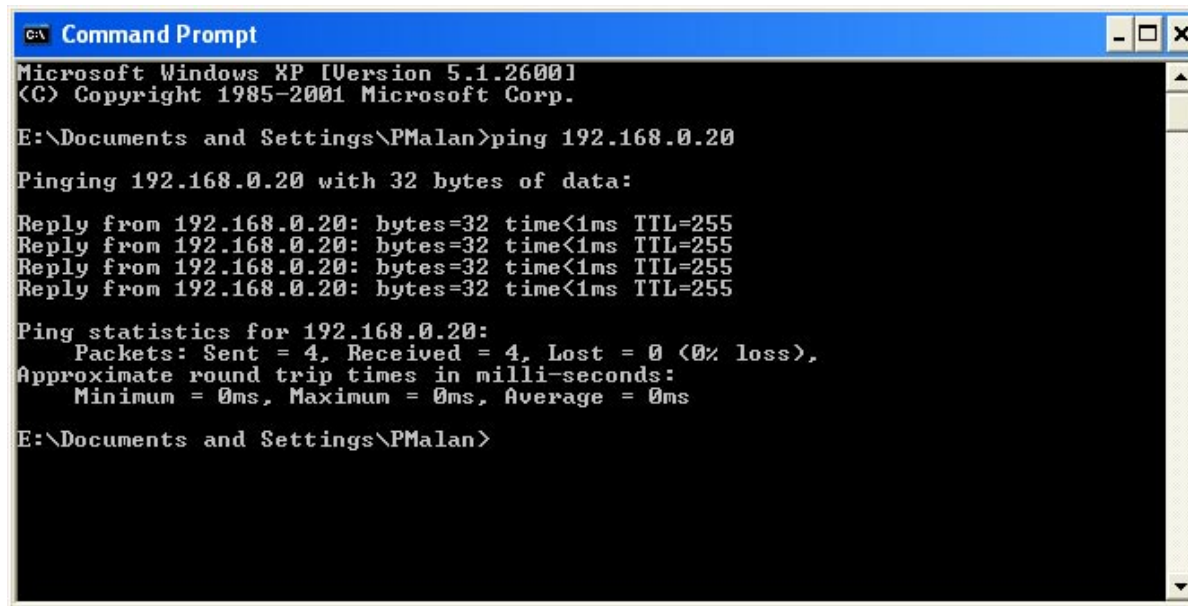
The PING (Packet Internet Groper) command can determine whether a specific IP Address is accessible by sending a packet to the specific address and waiting for a reply. It is a very useful tool to confirm if the IP Address conflicts with the Internet Camera over the network.

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

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).

A screenshot of a Windows Command Prompt window. The title bar reads "C:\ Command Prompt". The window content shows the following text:

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

E:\Documents and Settings\PMalan>ping 192.168.0.20

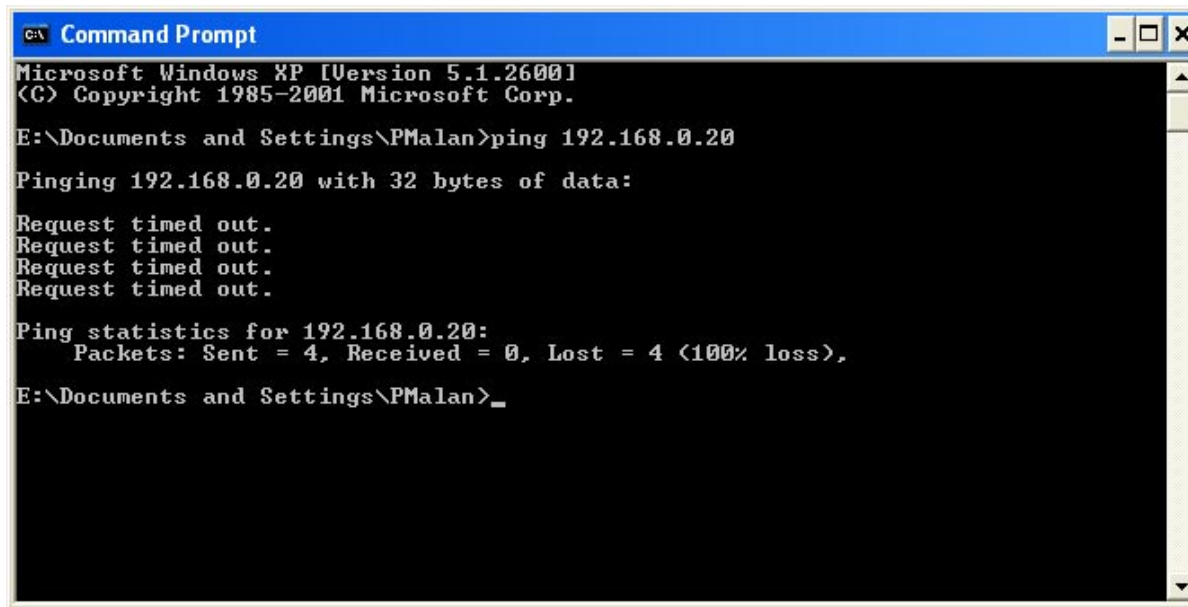
Pinging 192.168.0.20 with 32 bytes of data:

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:



```
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:

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.

Time Zone Table

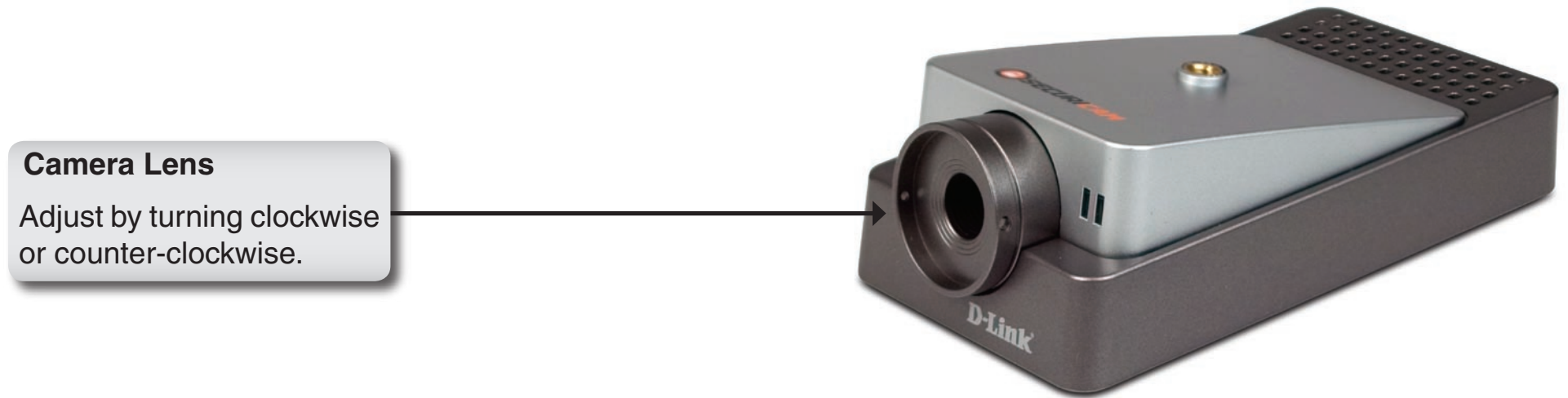
GMT stands for Greenwich Mean Time, which is the global time that all time zones are measured from.

(GMT-12:00) International Date Line West
(GMT-11:00) Midway Island, Samoa
(GMT-10:00) Hawaii
(GMT-09:00) Alaska
(GMT-08:00) Pacific Time (US & Canada); Tijuana
(GMT-07:00) Arizona
(GMT-07:00) Chihuahua, La Paz, Mazatlan
(GMT-07:00) Mountain Time (US & Canada)
(GMT-06:00) Central America
(GMT-06:00) Central Time (US & Canada)
(GMT-06:00) Guadalajara, Mexico City, Monterrey
(GMT-06:00) Saskatchewan
(GMT-05:00) Bogota, Lima, Quito
(GMT-05:00) Eastern Time (US & Canada)
(GMT-05:00) Indiana (East)
(GMT-04:00) Atlantic Time (Canada)
(GMT-04:00) Caracas, La Paz
(GMT-04:00) Santiago
(GMT-03:30) Newfoundland
(GMT-03:00) Brasilia
(GMT-03:00) Buenos Aires, Georgetown
(GMT-03:00) Greenland
(GMT-02:00) Mid-Atlantic
(GMT-01:00) Azores
(GMT-01:00) Cape Verde Is.
(GMT) Casablanca, Monrovia
(GMT) Greenwich Mean Time : Dublin, Edinburgh, Lisbon, London
(GMT+01:00) Amsterdam, Berlin, Bern, Rome, Stockholm, Vienna
(GMT+01:00) Belgrade, Bratislava, Budapest, Ljubljana, Prague
(GMT+01:00) Brussels, Copenhagen, Madrid, Paris
(GMT+01:00) Sarajevo, Skopje, Warsaw, Zagreb
(GMT+01:00) West Central Africa
(GMT+02:00) Athens, Istanbul, Minsk
(GMT+02:00) Bucharest
(GMT+02:00) Cairo
(GMT+02:00) Harare, Pretoria
(GMT+02:00) Helsinki, Kyiv, Riga, Sofia, Tallinn, Vilnius

(GMT+03:30) Tehran
(GMT+04:00) Abu Dhabi, Muscat
(GMT+04:00) Baku, Tbilisi, Yerevan
(GMT+04:30) Kabul
(GMT+05:00) Ekaterinburg
(GMT+05:00) Islamabad, Karachi, Tashkent
(GMT+05:30) Chennai, Kolkata, Mumbai, New Delhi
(GMT+05:45) Kathmandu
(GMT+06:00) Almaty, Novosibirsk
(GMT+06:00) Astana, Dhaka
(GMT+06:00) Sri Jayawardenepura
(GMT+06:30) Rangoon
(GMT+07:00) Bangkok, Hanoi, Jakarta
(GMT+07:00) Krasnoyarsk
(GMT+08:00) Beijing, Chongqing, Hong Kong, Urumqi
(GMT+08:00) Irkutsk, Ulaan Bataar
(GMT+08:00) Kuala Lumpur, Singapore
(GMT+08:00) Perth
(GMT+08:00) Taipei
(GMT+09:00) Osaka, Sapporo, Tokyo
(GMT+09:00) Seoul
(GMT+09:00) Yakutsk
(GMT+09:30) Adelaide
(GMT+09:30) Darwin
(GMT+10:00) Brisbane
(GMT+10:00) Canberra, Melbourne, Sydney
(GMT+10:00) Guam, Port Moresby
(GMT+10:00) Hobart
(GMT+10:00) Vladivostok
(GMT+11:00) Magadan, Solomon Is., New Caledonia
(GMT+12:00) Auckland, Wellington
(GMT+12:00) Fiji, Kamchatka, Marshall Is.
(GMT+13:00) Nuku'alofa

Adjusting the Camera Focus

To help you get the best image quality, keep in mind that while adjusting the DCS-1110 focus you can preview the image quality from your Web browser.



Note: You can further adjust the Internet Camera's image quality through the Web Configuration under Advanced > 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

Remote Management

- Configuration Accessible via a Web Browser
- Record to a Local Hard Drive via a Web Browser

Networking Protocol

TCP/IP, HTTP, SMTP, NTP, DNS, DHCP, UPnP™, PPPoE, DDNS, PoE Support

Connectivity

- 10/100Mbps Fast Ethernet
- Auto Negotiation
- Auto MDI/MDI-X
- 802.3af Power over Ethernet

Video Algorithm Supported

- MPEG-4 Simple Profile

Video Resolution

- Up to 30fps at 160x120
- Up to 30fps at 320x240
- Up to 30fps at 640x480

Camera Specification

- 1/4" CMOS Sensor
- 0.5 Lux
- AGC/AWB
- Electronic Shutter: 1/60~1/15000 sec.

Security

- Administrator and User Group Protected
- Password Authentication

IP View SE Management Software

- Remotely Manage and Control up to 4 DCS-1110 Internet Cameras
- View Up to 4 Cameras on One Screen
- Supports all Management Functions Provided in Web Interface
- Record Video to Hard Drive or NAS in AVI Format
- Scheduled, Motion Triggered, or Manual Recording Options

Viewing System Requirement Protocol

Active X

Operation System

Microsoft Windows® XP/2000

Browser

Internet Explorer v6

LEDS

- Power
- Link

Power

- External Power Supply
- 5V DC 2.5A
- Power Consumption 4.5W

Weight

0.44 lbs.

Dimensions

5.46" (L) x 2.99" (W) x 1.77" (H)

Operating Environment

- Operating Temperature 41°F ~ 104°F
- Storage temperature -13°F ~ 50°F
- Humidity 5% ~ 95%

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-1110)
- Hardware Revision (located on the label on the bottom of the router (e.g. rev A1))
- Serial Number (s/n number located on the label on the bottom of the router).

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

For customers within the United States:

Phone Support:

(877) 453-5465

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](mailto: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.

Version 1.00
April 11, 2006