USER MANUAL DCS-2103

VERSION 1.0



D-Link®

SURVEILLANCE

Table of Contents

Product Overview	4
Package Contents	4
System Requirements	
Hardware Overview	5
Front	5
Rear	6
Side	7
Installation	
Starting the Camera Installation Wizard	8
Operation	0
Configuration	
Using the Configuration Menu	
Live Video	10
Setup	12
Wizard	12
Internet Connection Setup Wizard	12
Motion Detection Setup Wizard	
Network Setup	
Dynamic DNS	20
Image Setup	21
Audio and Video	23
Preset	25
Motion Detection	27
Time and Date	28
Event Setup	
•	

Application	30
Add Server	3
Add Media	
Add Event	34
Add Recording	36
SD Card	38
Advanced	
Digital Input/Output	39
HTTPS	
Access List	4
Maintenance	42
Device Management	42
Backup and Restore	
Firmware Upgrade	44
Status	
Device Info	45
Logs	46
Help	47
Appendix	48
DI/DO Input Specifications	
Technical Specifications	

Preface

D-Link reserves the right to revise this publication and to make changes in the contents hereof without obligation to notify any person or organization of such revisions or changes.

Manual Revisions

Revision	Date	Description
1.0	June 20, 2011	DCS-2103 Revision A1 with firmware version 1.00

Trademarks

D-Link and the D-Link logo are trademarks or registered trademarks of D-Link Corporation or its subsidiaries in the United States or other countries. All other company or product names mentioned herein are trademarks or registered trademarks of their respective companies.

Copyright © 2011 D-Link Corporation.

All rights reserved. This publication may not be reproduced, in whole or in part, without prior expressed written permission from D-Link Systems, Inc.

Package Contents

- DCS-2103 Network Camera
- CAT5 Ethernet cable
- Power adapter
- Camera stand
- CD-ROM with User Manual and software
- Quick Installation Guide

If any of the above items are missing, please contact your reseller.



System Requirements

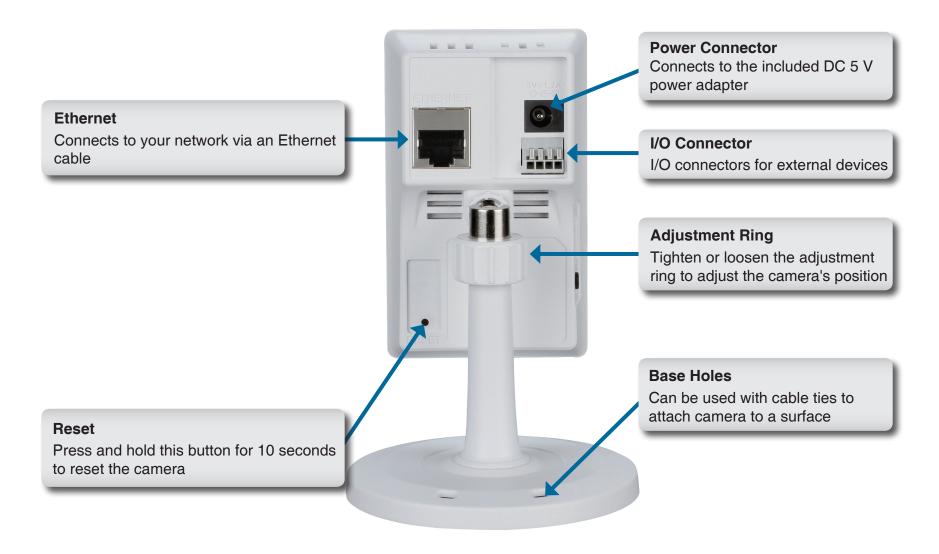
- Existing 10/100 Ethernet-based network
- Computer with Windows 7/Vista/XP for Camera Setup Wizard
- Internet Explorer, Firefox, Opera, or other web browser for web interface (Internet Explorer recommended for full functionality)

If any of the above items are missing, please contact your reseller.

Hardware Overview Front



Rear

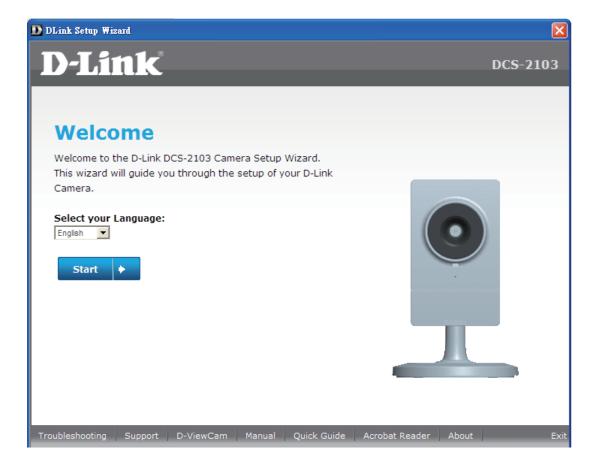




Starting the Camera Installation Wizard

Insert the Installation CD-ROM into your computer's optical drive to start the autorun program.

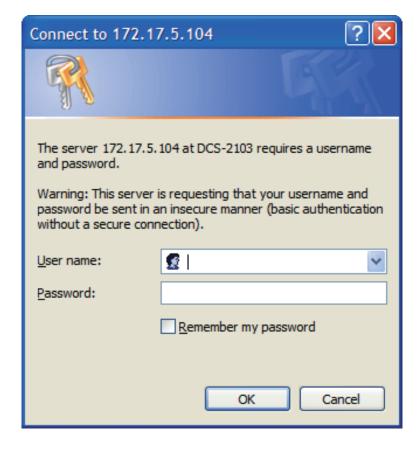
The CD-ROM will open the Camera Setup Wizard. Simply click the **Start** button to go through the Setup Wizard, which will guide you through the setup process from connecting your hardware to configuring your camera.



Using the Configuration Menu

After completing the Camera Setup Wizard, you are ready to use your camera. The camera's built-in Web configuration utility is designed to allow you to easily access and configure your DCS-2103. At the end of the wizard, click the **Go To Camera** button, or enter the IP address of your camera into a web browser, such as Internet Explorer. To log in, use the user name **admin** and the password you created in the Installation Wizard. If you did not create a password, the default password is blank. After entering your password, click the **OK** button.

Note: If you are directly connecting your PC to the camera, or if you are using the camera on a closed network, the default IP is **192.168.0.20**.



Live Video

This section shows your camera's live video. You may select any of the available icons listed below to operate the camera. You may also select your language using the drop-down menu on the left side of the screen.

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

	Digital Input Indicator	This indicator will change color when a digital input signal is detected.
1	Motion Trigger Indicator	This indicator will change color when a trigger event occurs.
		Note: The video motion feature for your camera must be enabled.
REC	Recording Indicator	When a recording is in progress, this indicator will change color.





Video Profile 3

Full screen mode

Taking a Snapshot

Recording a Video Clip

Set a Storage Folder

■ Listen/Stop Listening

Talk/Stop Talking

▲ Start/Stop Digital Output



Control Pad

This control pad can be used to pan, tilt, and zoom within the camera's predefined view area, if one has been defined.



Go To: If any presets have been defined, selecting a preset from this list (Preset List) will display it.

SD Status: This option displays the status of the SD card. If no SD card has been inserted, this screen will display the message "Card Invalid."

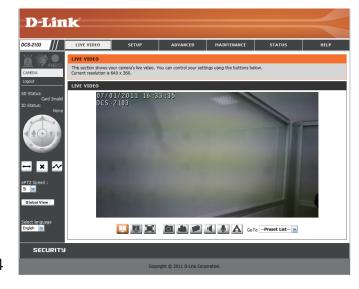
IO Status: This option displays the status of your I/O device if a device has been connected.

PTZ Control: This camera uses electronic pan/tilt/zoom (ePTZ) to select and view areas of interest in the field of view. Please see page 23 for information about setting the frame size and view window area.

ePTZ Speed: You may select a value between 0 and 64. 0 is the slowest and 64 is the fastest.

Global View: This window indicates the total field of view (FOV) of the camera. The red box indicates the visible region of interest (ROI).

Language: You may select the interface language using this menu.

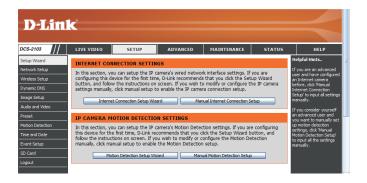


\leftrightarrow	Auto Pan	Starts the automatic panning function. The ROI will pan from back and forth within the FOV
×	Stop	Stops the camera ePTZ motion
~	Preset Path	Starts the camera's motion along the predefined path

Setup Wizard

To configure your Network Camera, click Internet Connection Setup Wizard. Alternatively, you may click Manual Internet Connection Setup to manually configure your Network Camera and skip to page 22.

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



Internet Connection Setup Wizard

This wizard will guide you through a step-by-step process to configure your new D-Link Camera and connect the camera to the internet. Click **Next** to continue.

Note: Select DHCP if you are unsure of which settings to choose.

Click **Next** to continue.

welcome to a link setup wizara - int	ternet connection setup
	step process to configure your new D-Link Camera and connect the camera to etection settings, please click Back button to close this wizard and re-open the
	Step 1: Setup LAN Settings
	Step 2: Setup DDNS Settings Step 3: Camera Name Settings
	Step 4: Setup Time Zone
	Back Next Cancel
Step 1: Setup LAN Settings	
connected to a router, or you are unsure whic DHCP connection. Otherwise, click on Static IP	ct to the Internet with a DHCP connection or Static IP address. If your camera is on settings to pick, D-Link recommends that you keep the default selection of P address to manually assign and IP address before clicking on the Next Password in the case that your ISP is using PPPoE and then click on the Next know your Username and Password.
⊙ DH	CP
○ Sta	atic IP Client
IP addre	ress 172.17.5.113
Subnet	: mask 255.255.255.0
Default	router 172.17.5.254
Primary	DNS 0.0.0.0
Seconda	dary DNS 168.95.1.1
□ Enal	ble PPPoE
User Na	ame
	(e.g. 123456@hinet.net)
Passwor	ord

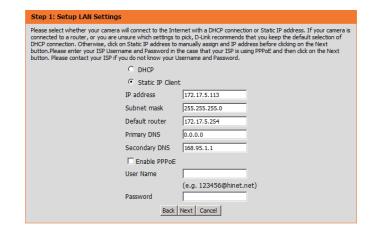
Configuration

Select Static IP if your Internet Service Provider has provided you with connection settings, or if you wish to set a static address within your home network. Enter the correct configuration information and click **Next** to continue.

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

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

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



Step 3: Camera Name Settings

D-Link recommends that you rename your camera for easy accessibility. You can then identify and connect to your camera via this name. Please assign a name of your choice before cliding on the Next button.

IP Camera Name DCS-3710

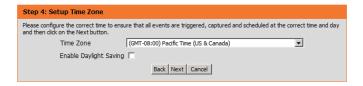
Back Next Cancel

Configuration

Configure the correct time to ensure that all events will be triggered as scheduled. Click **Next** to continue.

If you have selected DHCP, you will see a summary of your settings, including the camera's IP address. Please write down all of this information as you will need it in order to access your camera.

Click **Apply** to save your settings.



Step 5: Setup complete

Below is a summary of your camera settings. Click on the Back button to review or modify settings or click on the Apply button if all settings are correct. It is recommended to note down these settings in order to access your camera on the network or via your web forower.

IP Address DHCP
IP Camera Name DCS-3710
Time Zone (GMT+08:00) Taipei
DDNS Disable
PPPoE Disable

Back Apply Cancel

Motion Detection Setup Wizard

This wizard will guide you through a step-by-step process to configure your camera's motion detection functions.

Click **Next** to continue.

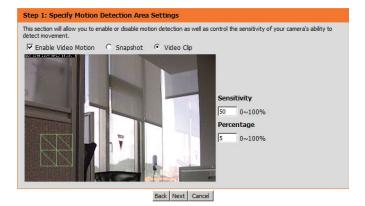
welcome to d-fink setup wizard - motion detection This wizard will guide you through a step-by-step process to configure your camera's motion detection functions. To setup the camera LAN or Internet settings, please click on the Back button to dose this wizard and re-open the Camera Setup wizard. Otherwise click on the Next button to begin. Step 1: Specify Motion Detection Area Settings Step 2: Alerts and Notifications Back Next Cancel

Step 1

This step will allow you to enable or disable motion detection, specify the detection sensitivity, and adjust the camera's ability to detect movement.

You may specify whether the camera should capture a snapshot or a video clip when motion is detected.

Please see the **Motion Detection** section on page 27 for information about how to configure motion detection.



Step 2

This step allows you to enable motion detection based on a customized schedule. Specify the day and hours. You may also choose to always record motion.



Step 3

This step allows you to specify how you will receive event notifications from your camera. You may choose not to receive notifications, or to receive notifications via e-mail or FTP.

Please enter the relevant information for your e-mail or FTP account.

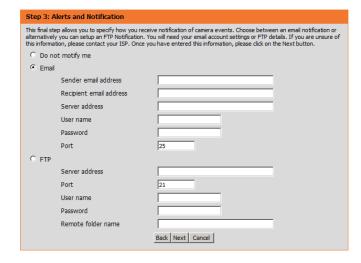
Click **Next** to continue.

Step 4

You have completed the Motion Detection Wizard.

Please verify your settings and click **Apply** to save them.

Please wait a few moments while the camera saves your settings and restarts.



Step 4: Setup Complete	
You have completed your camera setup. Pl the Apply button to save and apply your so	ease click the Back button if you want to review or modify your settings or click on ettings.
Motion Detection :	Enable
EVENT:	Video Clip
Schedule Day :	Sun ,Mon ,Tue ,Wed ,Thu ,Fri ,Sat ,
Schedule Time :	Always
Alerts and Notification :	Email
	Back Apply Cancel

Ste	ep 4: Setup Complete
	I have completed your camera setup. Please click the Back button if you want to review or modify your settings or click on Apply button to save and apply your settings. Changes saved.IP Camera's network is restarting, please wait for 3 seconds
	Back Apply Cancel

Network Setup

Use this section to configure the network connections for your camera. All relevant information must be entered accurately. After making any changes, click the **Save Settings** button to save your changes.

LAN Settings: This section lets you configure settings for your local area network.

DHCP: Select this connection if you have a DHCP server running on your network and would like your camera to obtain an IP address automatically.

Static IP Address: You may obtain a static or fixed IP address and other network information from your network administrator for your camera. A static IP address may simplify access to your camera in the future.

IP Address: Enter the fixed IP address in this field.

Subnet Mask: This number is used to determine if the destination is in the same subnet. The default value is

255.255.255.0.

Default Gateway: The gateway used to forward frames to destinations

in a different subnet. Invalid gateway settings may cause the failure of transmissions to a different

subnet.

Primary DNS:

The primary domain name server translates names

to IP addresses.

Secondary DNS:

The secondary DNS acts as a backup to the primary DNS.

D-Link You can configure your LAN and Internet settings here DHCP O Static IP Client Fnahle HPnP presentation 1024 Test Forwarding Port Forwarding Status UPnP forwarding is inactive O Enable O Disable User Name Confirm password PPPoF Status PPPoF is inactive Access name for stream2 RTSP port Access name for stream? Kilo Bytes Per Second Save Settings Don't Save Settings SECURITY

Enable UPnP: Enabling this setting allows your camera to be configured as a UPnP device on your network.

Enable UPnP Port Forwarding: Enabling this setting allows the camera to add port

forwarding entries into the router automatically on a

UPnP capable network.

Enable PPPoE: Enable this setting if your network uses PPPoE.

User Name / Password: Enter the username and password for your PPPoE

account. Re-enter your password in the Confirm Password field. You may obtain this information

from your ISP.

HTTP Port: The default port number is 80.

Access Name for Stream 1~3: The default name is video#.mjpg, where # is the

number of the stream.

HTTPS Port: You may use a PC with a secure browser to

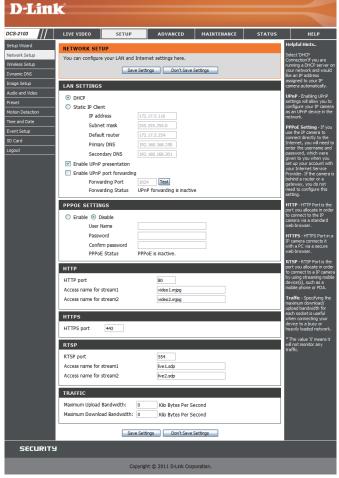
connect to the HTTPS port of the camera. The

default port number is 443.

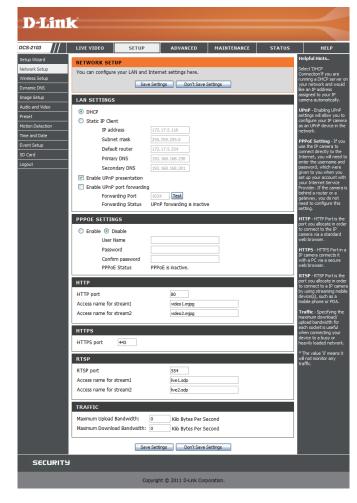
RTSP Port: The port number that you use for RTSP streaming to mobile devices, such as mobile phones or PDAs.

The default port number is 554. You may specify the address of a particular stream. For instance, live1. sdp can be accessed at rtsp://x.x.x.x/video1.sdp where the x.x.x.x represents the ip address of your camera.

Specifying the maximum download/upload bandwidth



Maximum Upload/Download for each socket can be useful when connecting your Bandwidth: device to a busy or heavily loaded network. Entering a value of '0' indicates that the camera should not monitor bandwidth. Specifying other values will limit the camera's transfer speed to the specified number of kilobytes per second.



Dynamic DNS

DDNS (Dynamic Domain Name Server) will hold a DNS host name and synchronize the public IP address of the modem when it has been modified. A user name and password are required when using the DDNS service. After making any changes, click the **Save Settings** button to save your changes.

Enable DDNS: Select this checkbox to enable the DDNS function.

Server Address: Select your Dynamic DNS provider from the pull

down menu or enter the server address manually.

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

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

your DDNS account.

Password: Enter the password used to connect to your DDNS

server account.

Timeout: Enter the DNS Timeout values you wish to use.

Status: Indicates the connection status, which is

automatically determined by the system.

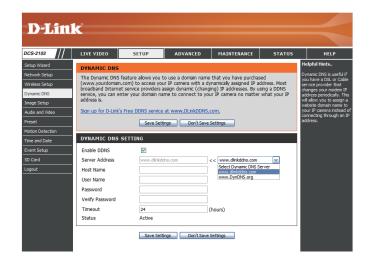


Image Setup

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

Enable Privacy Mask: The Privacy Mask setting allows you to specify up to 3 rectangular areas on the camera's image to be blocked/excluded from recordings and snapshots.

> You may click and drag the mouse cursor over the camera image to draw a mask area.

Right clicking on the camera image brings up the following menu options:

Disable All: Disables all mask areas Enable All: Enables all mask areas Reset All: Clears all mask areas.

Anti Flicker: If the video flickers, try enabling this setting.

Mirror: This will mirror the image horizontally.

Flip: This will flip the image vertically. When turning Flip on, you may want to consider turning Mirror on as well.

Power Line: Select the frequency used by your power lines to

avoid interference or distortion.

White Balance: Use the dropdown box to change white balance

settings to help balance colors for different

environments. You can choose from Auto, Outdoor,

Indoor, Fluorescent, and Push Hold.



Exposure Mode: Changes the exposure mode. Use the dropdown box to set the camera for Indoor, Outdoor, or Night environments, or to Moving to capture moving objects. The Low Noise option will focus on creating a high-quality picture without noise. You can also create 3 different custom exposure modes. The Max Gain setting will allow you to control the maximum amount of gain to apply to brighten the picture.

> **Denoise:** This setting controls the amount of noise reduction that will be applied to the picture.

Brightness: Adjust this setting to compensate for backlit subjects.

Contrast: Adjust this setting to alter the color intensity/strength.

Saturation: This setting controls the amount of coloration, from

grayscale to fully saturated.

Sharpness: Specify a value from 0 to 8 to specify how much

sharpening to apply to the image.

Reset Default: Click this button to reset the image to factory default

settings.



Audio and Video

You may configure up to 3 video profiles with different settings for your camera. Hence, you may set up different profiles for your computer and mobile display. In addition, you may also configure the two-way audio settings for your camera. After making any changes, click the **Save Settings** button to save your changes.

Number of active profiles: You can use the dropdown box to set up to 3 active

profiles.

Aspect ratio: Set the aspect ratio of the video to 4:3 standard or

16:9 widescreen.

Mode: Set the video codec to be used to JPEG, MPEG-4,

or H.264.

Frame size / View window Frame size determines the total capture resolution,

area: and View window area determines the Live Video viewing window size. If the Frame size is larger than the Live Video size, you can use the ePTZ controls to look around.

16:9 1280 x 800, 1280 x 720, 800 x 450, 640 x 360, 480 x 270, 320 x 176, 176 x 144

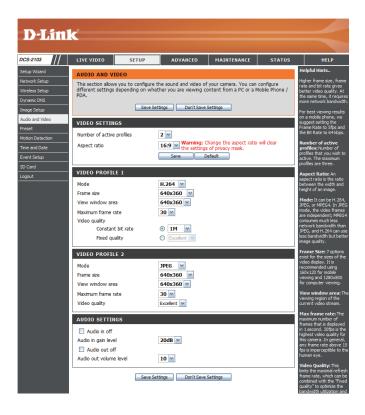
4:3 1024 x 768, 800 x 600, 640 x 480, 480 x 360, 320 x 240, 176 x 144

Note: If your View window area is the same as your Frame size, you will not be able to use the ePTZ function.

Maximum frame rate: A higher frame rate provides smoother motion for

videos, and requires more bandwidth. Lower frame rates will result in stuttering motion, and requires

less bandwidth.



Video Quality: This limits the maximum frame rate, which can be

combined with the "Fixed quality" option to optimize the bandwidth utilization and video quality. If fixed bandwidth utilization is desired regardless of the video quality, choose "Constant bit rate" and select the desired bandwidth.

Constant bit rate: The bps will affect the bit rate of the video recorded by the camera. Higher bit rates result in higher video quality.

Fixed quality: Select the image quality level for the camera to try to maintain. High quality levels will result in increased bit rates.

Audio in off: Ticking this checkbox will mute incoming audio.

Audio in gain level: This setting controls the amount of gain applied to

incoming audio to increase its volume.

Audio out off: Ticking this checkbox will mute outgoing audio.

Audio out volume level: This setting controls the amount of gain applied to

outgoing audio to increase its volume.



Preset

This screen allows you to set preset points for the ePTZ function of the camera, which allows you to look around the camera's viewable area by using a zoomed view. Presets allow you to quickly go to and view a specific part of the area your camera is covering, and you can create preset sequences, which will automatically change the camera's view between the different presets according to a defined order and timing you can set.

Note: If your View window area is the same as your Frame size, you will not be able to use the ePTZ function. For more details, refer to "Audio and Video" on page 23.

Video Profile: This selects which video profile to use. For more information, refer to "Audio and Video" on page 23.

ePTZ Speed: Select your Dynamic DNS provider from the pull down menu or enter the server address manually.

Arrow Buttons and Home Use these buttons to move to a specific part of the

Button: viewing area, which you can then set as a preset.

Click the Home button to return to the center of the

viewing area.

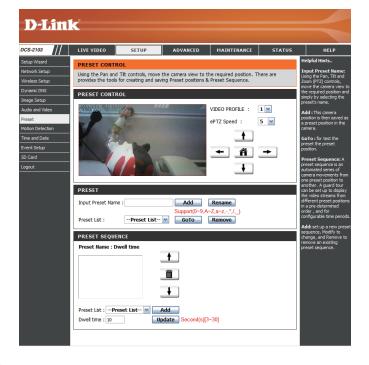
Input Preset Name: Enter the name of the preset you want to create,

then click the **Add** button to make a new preset. If an existing preset has been selected from the Preset List, you can change its name by typing in a new name, then clicking the **Pename** button

new name, then clicking the **Rename** button.

Preset List: Click this dropdown box to see a list of all the

presets that have been created. You can select one, then click the **GoTo** button to change the displayed camera view to the preset. Clicking the **Remove** button will delete the currently selected preset.



D-Link DCS-2103 User Manual

25

Preset Sequence: This section allows you to create a preset sequence, which automatically moves the camera's view between a set of preset views.

> To add a preset to the sequence, select it from the dropdown box at the bottom of this window, set the **Dwell time** to determine how long the camera view will stay at that preset, then click the Add button. The preset name will appear in the list, followed by the dwell time to view that preset for.

> You can rearrange your presets in the sequence by selecting a preset in the sequence, then clicking the arrow buttons to move it higher or lower in the current sequence.

Clicking the trash can button will remove the currently selected preset from the sequence.

If you want to change the dwell time for a preset, select it from the list, enter a new dwell time, then click the **Update** button.



Motion Detection

Enabling Video Motion will allow your camera to use the motion detection feature. You may draw a finite motion area that will be used for monitoring. After making any changes, click the **Save Settings** button to save your changes.

Enable Video Motion: Select this box to enable the motion detection feature of your camera.

Sensitivity: Specifies the measurable difference between two sequential images that would indicate motion. Please enter a value between 0 and 100.

Percentage: Specifies the amount of motion in the window being monitored that is required to initiate an alert. If this is set to 100%, motion is detected within the whole window will trigger a snapshot.

Draw Motion Area: Draw the motion detection area by dragging your mouse in the window (indicated by the red square).

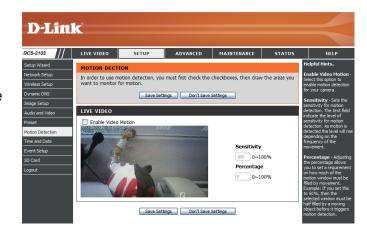
Erase Motion Area: To erase a motion detection area, simply click on the red square that you wish to remove.

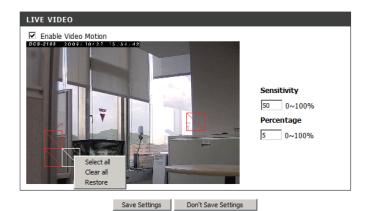
Right clicking on the camera image brings up the following menu options:

Select All: Draws a motion detection area over the entire screen.

Clear All: Clears any motion detection areas that have been drawn.

Restore: Restores the previously specified motion detection areas.





Time and Date

This section allows you to automatically or manually configure, update, and maintain the internal system clock for your camera. After making any changes, click the **Save Settings** button to save your changes.

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

Enable Daylight Saving: Select this to enable Daylight Saving Time.

Auto Daylight Saving: Select this option to allow your camera to configure

the Daylight Saving settings automatically.

Set Date and Time Manually: Selecting this option allows you to configure the

Daylight Saving date and time manually.

Offset: Sets the amount of time to be added or removed

when Daylight Saving is enabled.

Synchronize with NTP Server: Enable this feature to obtain time automatically from

an NTP server.

NTP Server: Network Time Protocol (NTP) synchronizes the

DCS-2103 with an Internet time server. Choose the

one that is closest to your location.

Set the Date and Time This option allows you to set the time and date

Manually: manually.

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

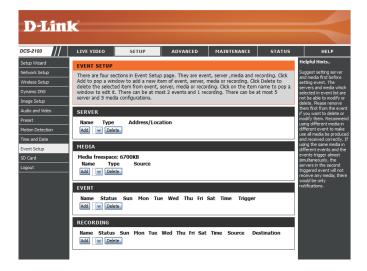


Event Setup

The Event Setup page includes 4 different sections.

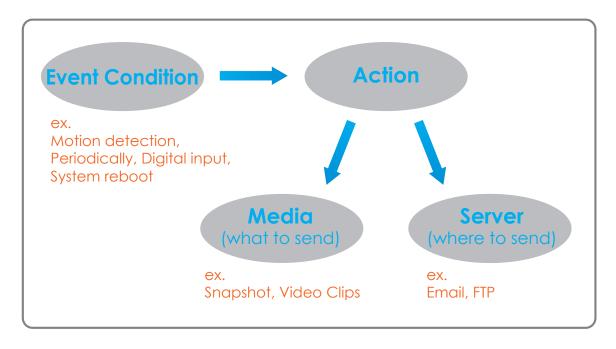
- Event
- Server
- Media
- Recording
- 1. To add a new item "event, server or media," click **Add**. A screen will appear and allow you to update the fields accordingly.
- 2. To delete the selected item from the pull-down menu of event, server or media, click **Delete**.
- 3. Click on the item name to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

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



Application

In a typical application, when motion is detected, the DCS-2103 Network Camera sends images to a FTP server or via e-mail as notifications. As shown in the illustration below, an event can be triggered by many sources, such as motion detection or external digital input devices. When an event is triggered, a specified action will be performed. You can configure the Network Camera to send snapshots or videos to your e-mail address or FTP site.



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

Add Server

You can configure up to 5 servers to save snapshots and/or video to. After making any changes, click the **Save Settings** button to save your changes.

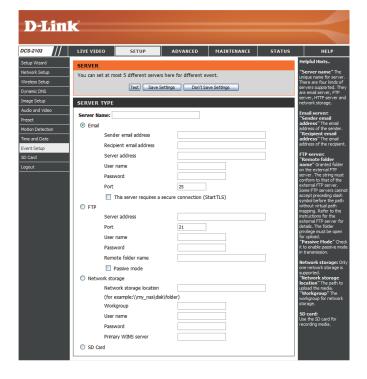
Server Name: Enter the unique name of your server.

E-mail: Enter the configuration for the target e-mail server account.

FTP: Enter the configuration for the target FTP server account.

Network Storage: Specify a network storage device. Only one network storage device is supported.

SD Card: Use the camera's onboard SD card storage.



Add Media

There are three types of media, **Snapshot**, **Video Clip**, and **System Log**. After making any changes, click the **Save Settings** button to save your changes.

Media Name: Enter an unique name for media type you want to

create.

Snapshot: Select this option to set the media type to snapshots.

Source: Set the video profile to use as the media source. Refer to "Audio and Video" on page 23 for more

information on video profiles.

Send pre-event image(s) [0~4]: Set the number of pre-event images to take. Pre-

event images are images taken before the main

event snapshot is taken.

Send post-event image(s) Set the number of post-event images to take. Post-

[0~7]: event images are images taken after the main event snapshot is taken. You can set up to 7 post-event images to be taken.

images to be taken.

File name prefix: The prefix name will be added on the file name.

Add date and time suffix to file Check it to add timing information as file name suffix.

name:



Video clip: Select this option to set the media type to video clips.

Source: Set the video profile to use as the media source. Refer to "Audio and Video" on page 23 for more information on video profiles.

Pre-event recording: This sets how many seconds to record before the

main event video clip starts. You can record up to 4

seconds of pre-event video.

Maximum duration: Set the maximum length of video to record for your

video clips.

Maximum file size: Set the maximum file size to record for your video

clips.

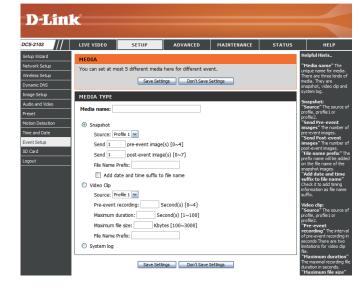
File name prefix: This is the prefix that will be added to the filename

of saved video clips.

System log: Select this option to set the media type to system

logs. This will save the event to the camera system

log, but will not record any snapshots or video.



Add Event

Create and schedule up to 3 events with their own settings here. After making any changes, click the **Save Settings** button to save your changes.

Event name: Enter a name for the event.

Enable this event: Select this box to activate this event.

Priority: Set the priority for this event. The event with higher

priority will be executed first.

Delay: Select the delay time before checking the next event.

It is being used for both events of motion detection

and digital input trigger.

Trigger: Specify the input type that triggers the event.

Video Motion Detection: Motion is detected during live video monitoring.

Select the windows that need to be monitored.

Periodic: The event is triggered in specified intervals. The

trigger interval unit is in minutes.

Digital input: The external trigger input to the camera.

System Boot: Triggers an event when the system boots up.

Network Lost: Triggers an event when if the network connection is

lost.



Time: Select **Always** or enter the time interval.

Trigger D/O: Select to trigger the digital output for a specific number of seconds when an event occurs.

Server: Specify the location where the event information should be saved to.



Add Recording

Here you can configure and schedule the recording settings. After making any changes, click the **Save Settings** button to save your changes.

Recording entry name: The unique name of the entry.

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

Priority: Set the priority for this entry. The entry with a higher

priority value will be executed first.

Source: The source of the stream.

Recording schedule: Scheduling the recording entry.

Recording settings: Configuring the setting for the recording.

Destination: Select the folder where the recording file will be

stored.

Total cycling recording size: Please input a HDD volume between 1MB and 200GB for recording space. The recording data will replace the oldest record when the total recording size exceeds this value. For example, if each recording file is 6MB, and the total cyclic recording size is 600MB, then the camera will record 100 files in the specified location (folder) and then will delete the oldest file and create new file for cyclic recording.

> Please note that if the free HDD space is not enough. the recording will stop. Before you set up this option please make sure your HDD has enough space, and it is better to not save other files in the same folder. as recording files.



Size of each file for recording: File size for each recording file. You may input the

value in the range of 200-5000.

File Name Prefix: The prefix name will be added on the file name of

the recording file(s).



SD Card

Here you may browse and manage the recorded files which are stored on the SD card.

Format SD Card: Click this icon to automatically format the SD card

and create "picture" & "video" folders.

View Recorded Picture: If the picture files are stored on the SD card, click

on the picture folder and choose the picture file you

would like to view.

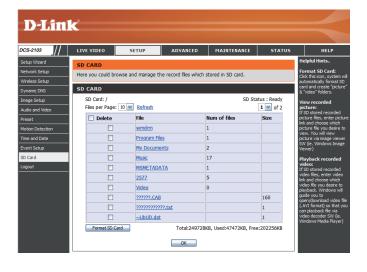
Playback Recorded Video: If video files are stored on the SD card, click on the

video folder and choose the video file you would like

to view.

Refresh: Reloads the file and folder information from the SD

card.



Advanced Digital Input/Output

This screen allows you to control the behavior of digital input and digital output devices. The I/O connector provides the physical interface for digital output (DO) and digital input (DI) that is used for connecting a variety of external alarm devices such as IR-Sensors and alarm relays. The digital input is used for connecting external alarm devices and once triggered images will be taken and e-mailed. After making any changes, click the **Save Settings** button to save your changes.

Select D/I or D/O Mode: The camera will send a signal when an event is triggered, depending upon the type of device connected to the DI circuit.

> N.C. stands for **Normally Closed**. This means that the normal state of the circuit is closed. Therefore events are triggered when the device status changes to "Open."

> N.O. stands for **Normally Open**. This means that the normal state of the circuit is open. Therefore events are triggered when the device status changes to "Closed."

LED: You may specify whether or not to illuminate the LED on the side of the camera.



HTTPS

This page allows you to install and activate an HTTPS certificate for secure access to your camera. After making any changes, click the **Save Settings** button to save your changes.

Enable HTTPS Secure Enable the HTTPS service.

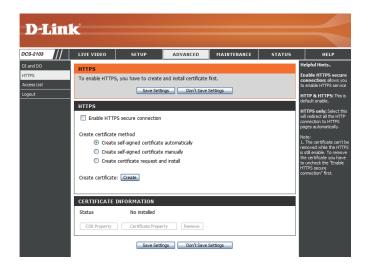
Connection:

Create Certificate Method: Choose the way the certificate should be created. Three options are available:

Create a self-signed certificate automatically Create a self-signed certificate manually Create a certificate request and install

Status: Displays the status of the certificate.

Note: The certificate cannot be removed while the HTTPS is still enabled. To remove the certificate, you must first uncheck **Enable HTTPS secure connection**.



Access List

Here you can set access permissions for users to view your DCS-2103.

Allow list: The list of IP addresses that have the access right to the camera.

Start IP address: The starting IP Address of the devices (such as a

computer) that have permission to access the video of the camera. Click Add to save the changes made.

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

End IP address: The ending IP Address of the devices (such as a

computer) that have permission to access the video

of the camera.

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

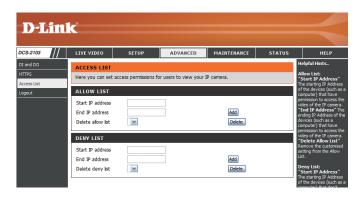
Deny list: The list of IP addresses that have no access rights

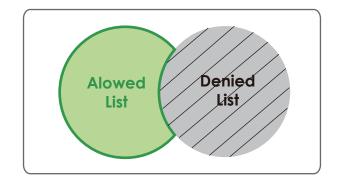
to the camera.

Delete deny list: Remove the customized setting from the Delete List.

For example:

When the range of the Allowed List is set from 1.1.1.0 to 192.255.255.255 and the range of the Denied List is set from 1.1.1.0 to 170.255.255.255. Only users with IPs located between 171.0.0.0 and 192.255.255.255 can access the Network Camera.





Maintenance

Device Management

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

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

Add User Account: Add new user account.

User Name: The user name for the new account.

Password: The password for the new account.

User List: All the existing user accounts will be displayed here.

You may delete accounts includes in the list, but

please reserve at least one as guest.

Camera Name: Create a unique name for your camera that will

be added to the file name prefix when creating a

snapshot or a video clip.

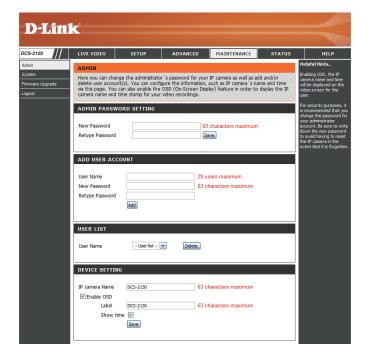
Enable OSD: Select this option to enable the On-Screen Display

feature for your camera.

Label: Enter a label for the camera.

Show Time: Select this option to enable the time-stamp display

on the video screen.



Backup and Restore

In this section, you may backup, restore and reset the camera configuration, or reboot the camera.

Save To Local Hard Drive: You may save and document your current settings

into your computer.

Local From Local Hard Drive: Locate a pre-saved configuration by clicking

Browse and then restore the pre-defined settings to

your camera by clicking Load Configuration.

Restore to Factory Default: You may reset your camera and restore the factory

settings by clicking **Restore Factory Defaults**.

Reboot Device: This will restart your camera.



Firmware Upgrade

The camera's current firmware version will be displayed on this screen. You may visit the D-Link Support Website to check for the latest available firmware version.

To upgrade the firmware on your DCS-2103, please download and save the latest firmware version from the D-Link Support Page to your local hard drive. Locate the file on your local hard drive by clicking the **Browse** button. Select the file and click the **Upload** button to start upgrading the firmware.

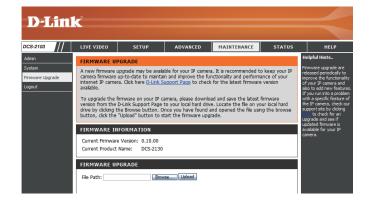
Current Firmware Version: Displays the detected firmware version.

Current Product Name: Displays the camera model name.

File Path: Locate the file (upgraded firmware) on your hard

drive by clicking Browse.

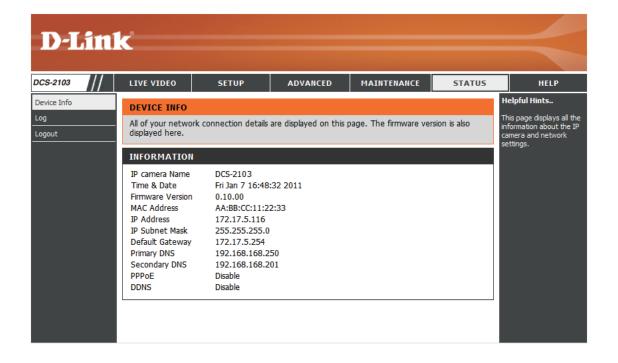
Upload: Uploads the new firmware to your camera.



Status

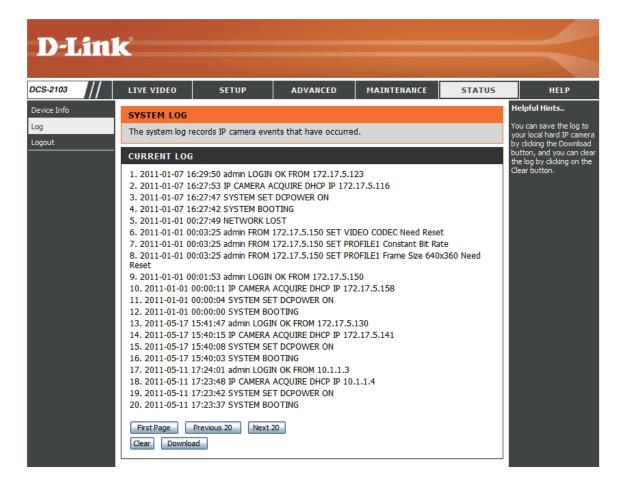
Device Info

This page displays detailed information about your device and network connection.



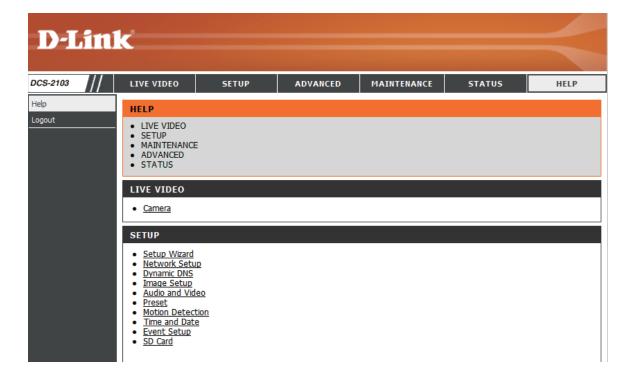
Logs

This page displays the log information of your camera. You may download the information by clicking **Download**. You may also click **Clear** to delete the saved log information.

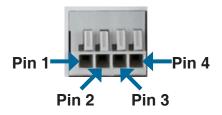


Help

This page provides helpful information regarding camera operation.



DI/DO Input Specifications

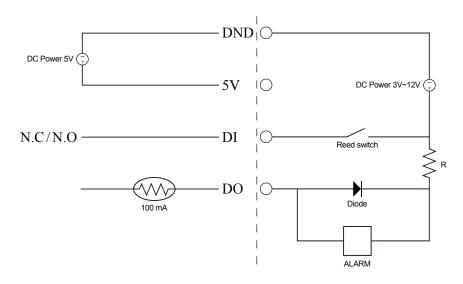


PIN	FUNCTION	NOTE
1	Digital Out (DO)	Uses an open-drain NFET transistor with the source connected to GND in camera. If used with an external relay, a diode must be connected in parallel with the load for protection against voltage transients. Max loading is 100 mA.
2	Digital In (DI)	A switch from DI to DC 5 V, activated by setting NO. or NC.
3	DC5V OUTPUT	DC 5 V Output / Max. 100 mA
4	GND	GND

Internal 5V Power

DC Power 5V () 5V | O | | Reed switch | Red Switch | DI | Diode | Diode | Diode | ALARM

External 3~12V Power



Technical Specifications

Camera	Camera Hardware Profile	■ 1/4" 1 Megapixel progressive CMOS sensor	■ Aperture F2.0	
		Minimum illumination 1.0 lux	Angle of view:	
		■ 10x digital zoom	(H) 57.8° (V) 37.8°	
		• Fixed length 3.45 mm	(D) 66°	
	Image Features	Configurable image size, quality, frame rate, and bit rate	3 configurable privacy mask zones	
		Time stamp and text overlays	 Configurable shutter speed, brightness, saturation, contrast, and sharpness 	
		 Configurable motion detection windows 		
	Video Compression	 Simultaneous H.264/MPEG-4/MJPEG format compression 	 H.264/MPEG-4 multicast streaming 	
		JPEG for still image		
		 H.264/MPEG-4 multicast streaming 		
	Video Resolution	16:9 - 1280 x 800, 1280 x 720, 800 x 450, 640 x 360, 480 x 270, 320 x 176, 176 x 144 at frame rates up to 30 fps		
		4:3 - 1024 x 768, 800 x 600, 640 x 480, 480 x 360, 320 x 240, 176 x 144 at frame rates up to 30 fps		
	Audio Support	G.726		
	External Device Interface	- 1 DI / 1 DO	Built-in microphone	
		Micro SD card slot	3.5mm audio output jack	
Network	Network Protocols	IPv4, TCP/IP, UDP, ICMP, DHCP Client, NTP Client (D-Link), DNS Client, DDNS Client (D-Link), SMTP Client, FTP Client, HTTP / HTTPS,		
		Samba Client, PPPoE, UPnP Port Forwarding, RTP / RTSP/ RTCP, IP filtering, 3GPP, IGMP, ONVIF Compliant		
	Security	 Administrator and user group protection 	 HTTP and RTSP digest encryption 	
		 Password authentication 		

Technical Specifications

System Management	System Requirements for Web Interface	 Operating System: Microsoft Windows 7/Vista/XP/2000 Browser: Internet Explorer, Firefox, Netscape, Opera 		
	Event Management	 Motion detection Event notification and upload snapshots/video clips via HTTP, SMTP, or FTP 	 Supports multiple HTTP, SMTP, and FTP servers Multiple event notifications Multiple recording methods for easy backup 	
	Remote Management	 Configuration accessible via web browser Take snapshots/video clips and save to local hard drive or NAS via web browser 		
	Mobile Support	Windows 7/Vista/XP system, Pocket PC, or mobile phone with 3GPP playback support		
	D-ViewCam™ System Requirements	 Operating System: Microsoft Windows 7/Vista/XP Web Browser: Internet Explorer 6 or higher 	Protocol: Standard TCP/IP	
	D-ViewCam™ Software Functions	 Remote management/control of up to 32 cameras Viewing of up to 32 cameras on one screen 	 Supports all management functions provided in web interface Scheduled motion triggered, or manual recording options 	
General	Power Input	5 V DC 1.2 A, 50/60 Hz		
	Max. Power Consumption	DCS-2103: 2 watts DCS-2130: 2.5 watts		
	Operating Temperature	0 to 40 °C (32 to 104 °F)		
	Storage Temperature	-20 to 70 °C (-4 to 158 °F)		
	Humidity	20% to 80% non-condensing		
	Weight	DCS-2103: 68 g DCS-2130: 69 g		
	Certifications	CE, CE LVD, FCC (Class B), C-Tick		

^{*} This device complies with part 15 of the FCC Rules.

Operation is subject to the following two conditions:

⁽¹⁾ This device may not cause harmful interference.

⁽²⁾ This device must accept any interference received, including interference that may cause undesired operation.

