D-Link

DRU-100C USB Digital Video Camera

User's Manual

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Introduction

Thank you for purchasing the D-Link DRU-100C USB Digital Video Camera. Using state of the art technology, it can be used with any Windows 98 or above PC for video-conferencing, to create multimedia presentations, or video emails. Included in your package is Smith Micro's Internet CommSuite[™], a complete Video software package that will allow you to get the most out of your new camera.

This guide will walk you through the steps necessary to install your DRU-100C and configure Internet CommSuiteTM.



Hardware Installation

Installation of a D-Link DRU-100C requires installation of the camera hardware itself, and then installation of the software drivers.

Installing the Camera

Please verify that you have Windows 98 or Windows 2000 running and working before attempting to install your DRU-100C.

Install the camera by plugging its USB type 'A' connector into an available USB port on your PC or on any USB hub attached to your PC.

No power adapter is required, the DRU-100C is powered directly by the USB Bus.

Once the camera has been plugged in the Add New Hardware Wizard



will start automatically. This concludes the hardware installation section of the manual.

Driver Installation

Installing the Camera Drivers

Note: Please have your original Windows CD available, it may be required to complete the installation.

Once the DRU-100C has been installed the New Hardware

Add New Hardware Wiza	ard
	This wizard searches for new drivers for: USB Device A device driver is a software program that makes a hardware device work.
	< Back Next> Cancel

Wizard will launch:

Once again press "Next>" so that your computer will search for the best driver:



Make sure that the driver diskette that came with your camera is in your floppy drive and that you have checked "Floppy disk drives" and then press "Next>":

	Windows will search for new drivers in its driver database on your hard drive, and in any of the following selected locations. Click Next to start the search.	
	Floppy disk drives	
	CD-ROM drive	
	✓ Microsoft Windows Update	
	🦳 Specify a location:	
\sim	A.V.	
\sim	Browse	

Once the driver has been installed click "Finish":



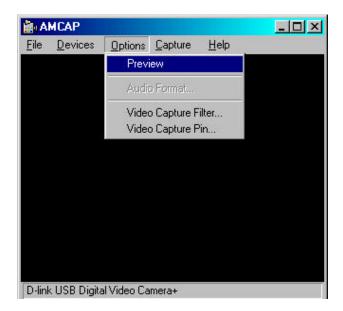
Quality & Format Adjustment

Display Utility

Once the driver is installed successfully, it allows three options of "PC Camera VFW Capture", "PC Camera WDM Capture", and "Uninstall D-Link USB Digital Video Camera+". These programs are automatically installed to \Program\Files directory. The display utility allows you to view video images from your D-Link USB Digital Video Camera, and adjust the parameters for best color quality.

To adjust for the best image quality, you need to run the "PC Camera WDM Capture" display utility, click on windows **Start Menu/Programs/D-Link USB Digital Video Camera+/Camera/PC Camera WDM Capture**.

Select **Options** in the menu bar and in the selection item choose **Preview** and this will activate the D-Link USB Digital Video Camera to start capture images.



However, before you begin utilizing the D-Link USB Digital Video Camera make sure there is enough lighting in the scene and adjust the focus on the Digital Video Camera to gain optimal image quality.

Color Adjustment

Once the D-Link USB Digital Video Camera is capturing images you can start adjusting the colors by selecting the **Options** in the menu bar and in the selection item choose **Video Capture Filter**. A prompt screen will be displayed like the one below:

roperties		
	Manual	Auto
<u>B</u> rightness -	-1	- 36 🔽
<u>C</u> ontrast -	I	7
<u>H</u> ue -		7 [
<u>S</u> aturation =	j	208
Shar <u>p</u> ness -		· 3 🗆
Backlight		
<u>E</u> xposure -	j	154 🔽
ColorE <u>n</u> able	Cancel Flicker	<u>D</u> efault
	OK Cancel	

Under the **Camera Controls** tab, make the appropriate adjustments from the menu list to fine tune the image related parameters such as Brightness, Contrast, Saturation, Sharpness, Hue, Backlight, and Exposure or set to Default.

Brightness tells how much white or black that exists in the image. It is the amount of light reflected in proportion to the amount absorbed by the material in the image. Therefore, reflective objects are bright, and vise versa.

Contrast is the degree of difference in tone between the light and dark parts of an image. The higher the contrast the brighter the image and the lower the contrast the darker it will become.

Saturation is an expression for the relative bandwidth of the visible output from a light source. As saturation increases, colors appear more pure and as it decreases, colors appear more washed out.

Sharpness determines how crisp the image quality looks. For example, when sharpness is high, the picture will look crisp and edges will be well-defined.

Hue in short means color, it is the wavelength of light that gives a color its distinguished characteristics.

Backlight is the source light coming from the background, it affects the picture quality in areas of brightness from the background.

Exposure is recommended to be set at Auto or you can have the option to adjust to your required capture image. Since most cameras determine the exposure by averaging all the light that enters the lens.

When the **ColorEnable** is activated it allows the user for color display and if deactivated black and white images will appear from the AMCAP screen.

Keep in mind when changes are made, click the **Apply** button to refresh all the new details you have set and click **OK** to return to the AMCAP Capture Screen.

Format Adjustment

You can also format the image captured by selecting the **Options** in the menu bar and in the selection item choose **Video Capture Pin**. A prompt screen will be displayed like the one below:

Video Format	Compression
Video Standard: None	
Frame <u>R</u> ate: 15.000	I Frame Interval:
Elip Horizontal:	P Frame Interval:
Color Space / Compression:	
RGB 24 💌	III
Output <u>S</u> ize:	Quality:
320 x 240 💌	[]

In the **Frame Rate** display you have the options from 7.5 frames per second (fps) up to 30 fps.

You can format the setting allowing incoming color depth as 24-bit RGB with the other choices of RGB 555 (16 bit) and 1420 in the **Color Space/Compression**.

Output Size to set the video display size. There are various formats available such as 176X144 (QCIF) and 352X288 (CIF).

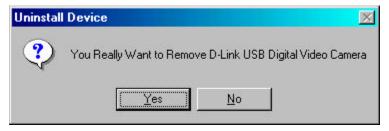
However, keep in mind the higher the Frame Rate, Color Space/Compression, and Output Size the larger the video file size will be. Therefore, the lower resolution is recommended for video-conferencing or video recording.

Once again when changes are made, click the **Apply** button to refresh all the new details you have set and click **OK** to return to the AMCAP Capture Screen.

Now you are ready to have fun with the new D-Link USB Digital Video Camera and with the bundled software you will be able to use the various video editing applications permitting you image manipulation, editing, photo album, video mail, and video conferencing capabilities.

Uninstalling The D-Link USB Digital Video Camera

To uninstall your D-Link USB Digital Video Camera click on windows **Start Menu/Programs/D-Link USB Digital Video Camera/Camera/Uninstall D-Link USB Digital Video Camera+**. A prompt screen will be displayed like the one below:



Click **Yes** if you want to remove the program from your system. A new prompt will be displayed acknowledging the D-Link USB Digital Video Camera has been successfully removed.

Uninstal	Device 🔀
•	D-Link USB Digital Video Camera Successfully Removed.

Click **OK** to finish the uninstall process.

SPECIFICATIONS

Sensor	352 x 288 Color CMOS sensor
Minimum Illumination	8 lux
System Interface	USB port
Video Compression	Proprietary video compression
Snap-shot Button	Yes
Color Adjustment	Brightness, Hue, Saturation
White Balance	Automatic
Driver	Windows 98, Windows 2000
Lens Aspect Ratio Power Consumption Operating Temperature Storage Temperature Humidity	F=6.0mm / f=1.8 4:3 5V, 200mA max. 10 °C ~ 50 °C 0 °C~ 65 °C 10% ~ 90% non-condensing