

DC100

# *Mistral*

User's Manual



## **USB INTERNET**

## **VIDEO CAMERA**

# Mistral DC100

## User's Manual

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## **Electromagnetic Compatibility Notice**

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 use in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If the unit 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:

- Re-orient 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 any experienced TV/radio technician for help.

## **Caution**

In order to maintain compliance with FCC regulations, shielded cables must be used with this equipment. Operation with non-approved equipment or unshielded cables is likely to result in interference to radio and TV reception.

To comply with the limits for a Class B digital device, pursuant to part 15 of the FCC rules, this device must only be installed on computer equipment certified to comply with the Class B limits. In addition, only the supplied power cables should be used with the product. Operation with non-certified computers, use of a cable other than that supplied, or modification of the device may result in interference to radio or television reception and could void the user's authority to operate this device.

## **System Requirements**

- PC with a minimum of a 300MHz Pentium, or equivalent.
- Minimum of 32 MB of RAM and 100 MB free hard disk space
- USB port.
- VGA or SVGA video card capable of displaying at least 256 colours (64k colours preferred),
- Windows 98, Windows 2000, Windows ME, Windows XP\*  
(Not compatible with Windows NT 4.0).

\* Users should note that camera driver installation in Windows XP environment is done at users' own risks. We accept no responsibility for any damage caused to users' computer systems or any other related equipment by such installation.

## Inside your DC100 WebCam package

### Hardware:

- Camera unit (with a USB cable connected)
- User's Manual
- Notebook computer attachment clip

### Software:

- Arcsoft Photo Studio for editing and retouching pictures.
- Arcsoft Photo Fantasy for picture manipulation by combining photos.
- Arcsoft Photo Printer Pro for printing your pictures in multiple sizes quickly and effortlessly

## About DC100 WebCam

The DC100 WebCam is a digital CMOS video camera with USB interface for Desktop & Notebook PCs. It features CMOS image sensor technology for enhanced image quality. It connects to the USB port of your PC or for video conferencing, Internet and home video, and digital still image capturing.

## DC100 WebCam features

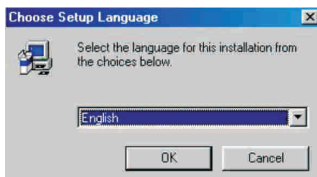
- Instant live video at high frame rates
- Easy to install
- Low power consumption
- Rotating camera head provides flexibility and privacy
- 24 bit colour (1.6 million colours)

## Prepare to Use your DC100 Webcam

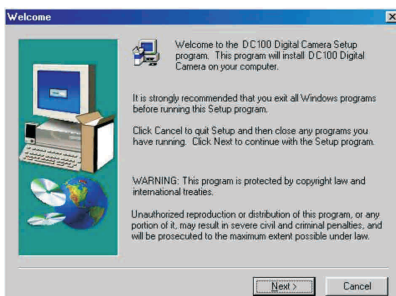
### Install Arcsoft programs and camera drivers in Windows 98/98SE/Me OS

**NOTE:** The graphics shown are based on the user interface in Windows 98SE

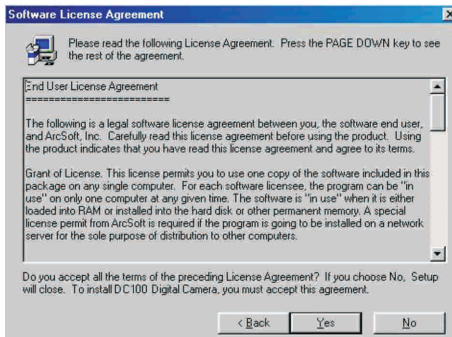
1. Put the program CD-ROM into the CD-ROM drive, it will do Autorun.
2. Select your desired language and click **OK** button



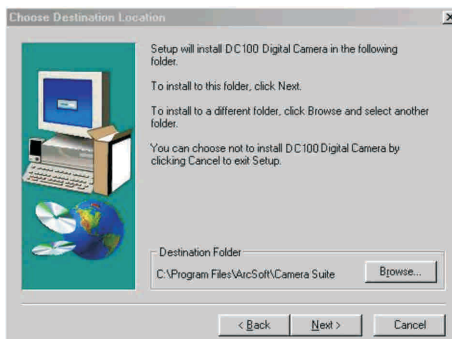
3. Click **Next** button



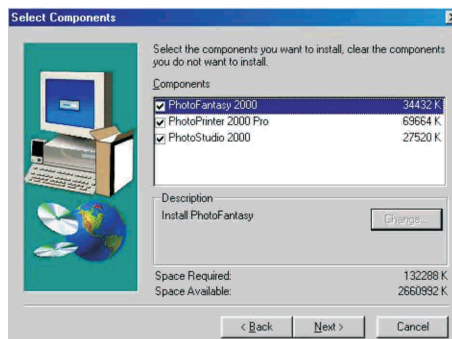
4. Click **Yes** button if you accept the license agreement



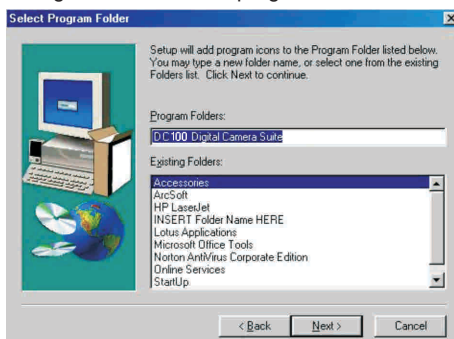
5. Change the Destination Folder by clicking the **Browse** button if necessary and click **Next** button



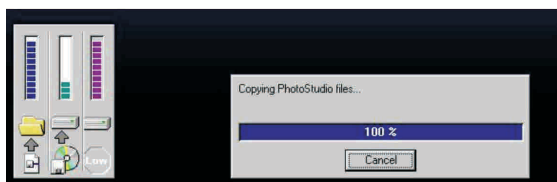
6. Select components of Arcsoft programs to install and click **Next** button



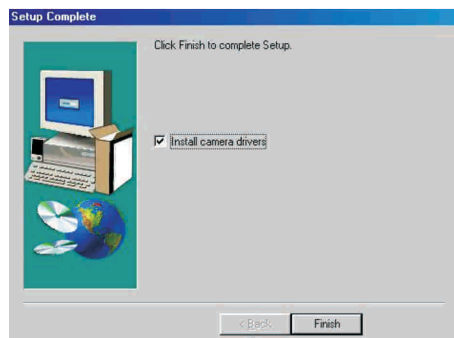
7. Change the name of the program folder if necessary and click **Next** button



8. Files are being copied to your computer

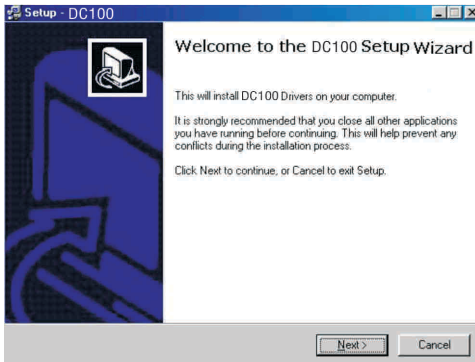


9. Click **Finish** button to install camera drivers

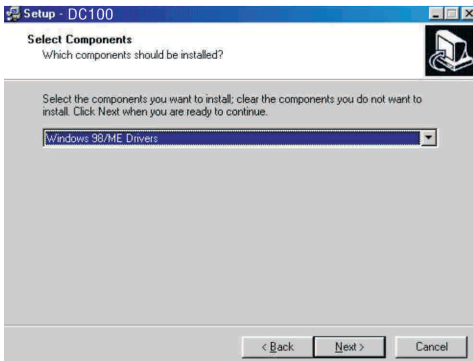


Install Webcam driver .....

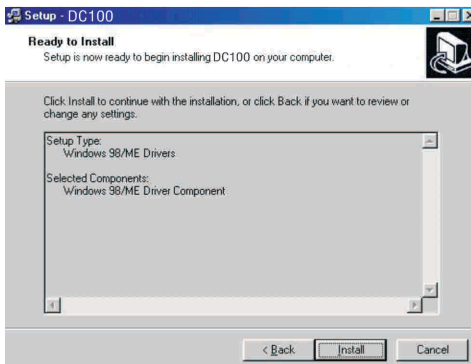
10. Click **Next** button to start webcam driver installation



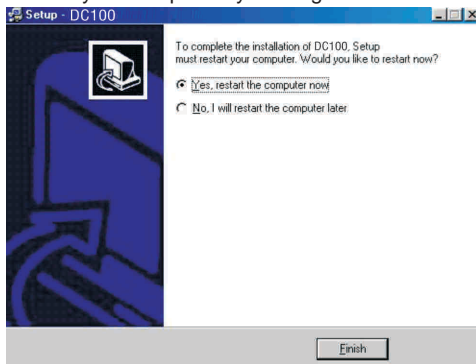
11. Select the component you want to install and click **Next** button to continue.



12. Click **Install** button and files will be transferred to your computer



- Restart your computer by clicking **Finish** button



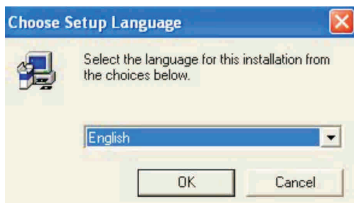
- After reboot, connect your webcam to computer. Your computer will recognize the webcam and complete installation. (The power supply for the camera is provided through the USB port).

**NOTE:** The installed webcam driver may conflict other USB devices in your computer system.

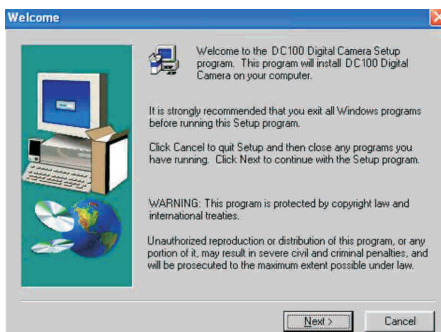
## Install Arcsoft programs and camera drivers in Windows 2000/XP OS

**NOTE:** The graphics shown are based on the user interface in Windows XP

- Put the program CD-ROM into the CD-ROM drive, it will do Autorun.
- Select your desired language and click **OK** button

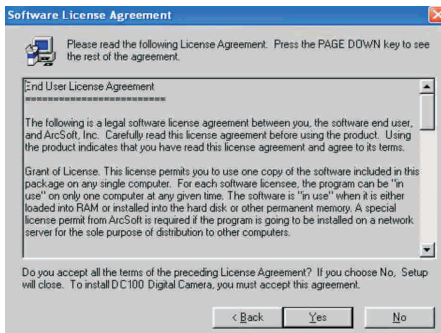


- Click **Next** button

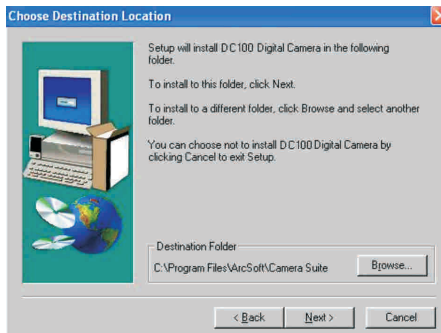




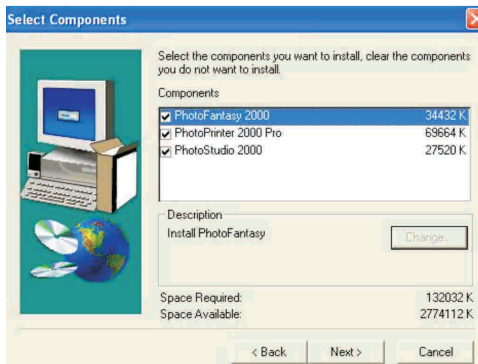
4. Click **Yes** button if you accept the license agreement



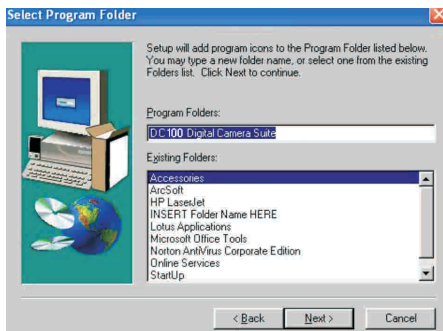
5. Change the Destination Folder by clicking **Browse** button if necessary and click **Next** button



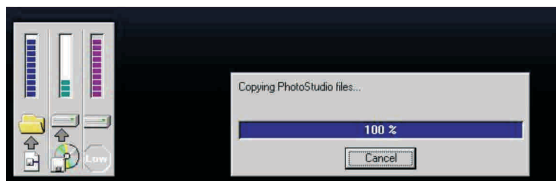
6. Select components of Arcsoft programs to install and click **Next** button



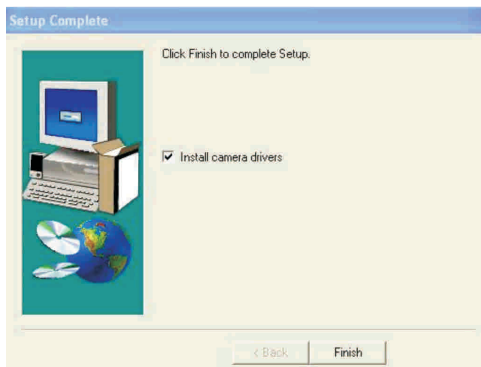
7. Change the name of the program folder if necessary and click Next button



8. Files are being copied to your computer



9. Click Finish button to install camera drivers

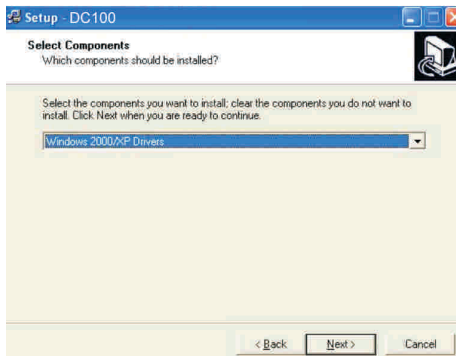


## Install Webcam driver .....

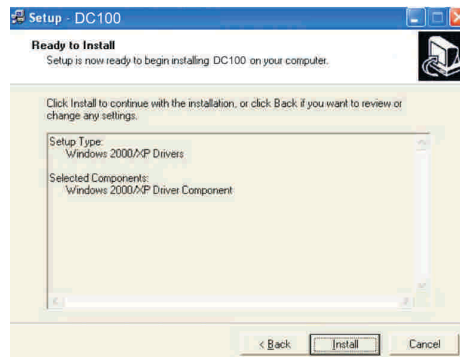
10. Click **Next** button to start webcam driver installation



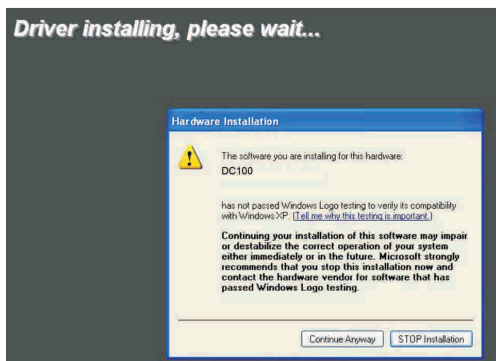
11. Select the component you want to install and click **Next** button to continue.



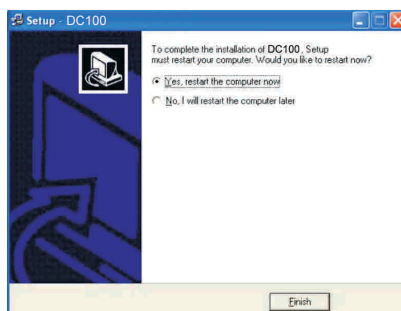
12. Click **Install** button on the following screen



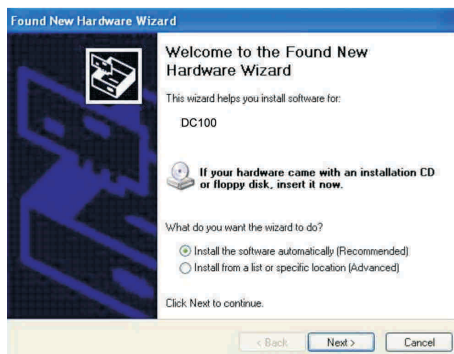
13. Click **Continue Anyway** button (for Win XP) or **Yes** button (for Win 2000) when you see the warning message



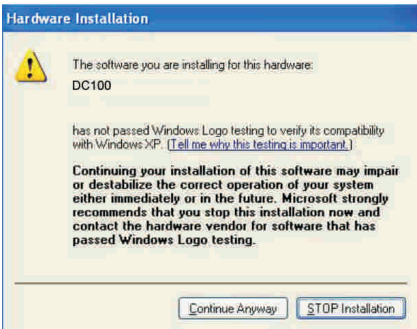
14. Restart your computer by clicking **Finish** button



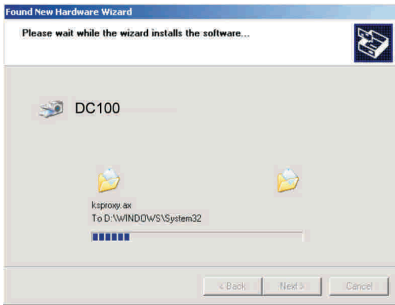
15. After your computer is restarted, connect your webcam to the computer and wait for the **Found New Hardware Wizard** window to pop up.



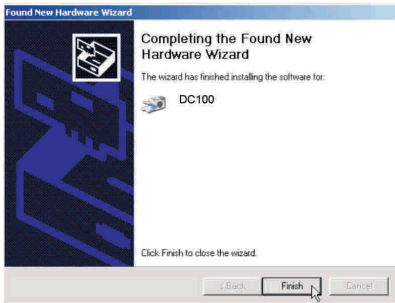
16. Click **Continue Anyway** button (for Win XP) or **Yes** button (Win 2000) when you see the warning message



17. Files are being copied to your computer.



18. Click **Finish** button. Driver installation is complete.



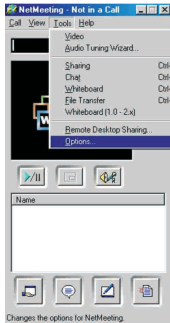
**NOTE:** The installed webcam driver may conflict other USB devices in your computer system.

## Use your Webcam with Software

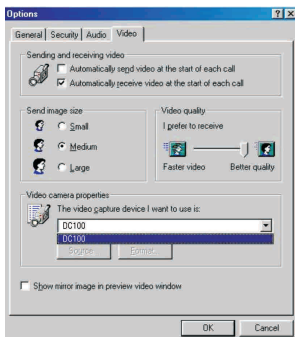
### Use your Webcam with Windows Netmeeting

**NOTE:** The graphics shown are based on the user interface in Windows 98SE.

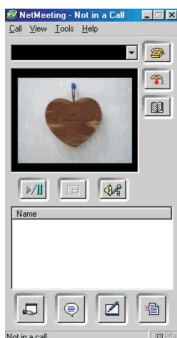
1. Set up an account if you do not already have one.
2. Click **Tools > Options** from the pull-down menu



3. Click **Video** tab, select DC100 from **Video Camera Properties** drop-down box and click **OK** button



4. Click **Start Video** icon and you should see a live picture



5. Click **Stop Video** icon (same as **Start Video** icon) when you are done

**NOTE:**

- Other options such as **Audio** and **Security** are also available under **Tools > Options** from the pull-down menu.
- Do not unplug the webcam when it is in operation.

## **Adjust focus of your webcam**

When you find the image is blurred and out of focus, you may try to:

- Rotate focus control ring clockwise if the object is comparatively far from the lens
- Rotate focus control ring counter-clockwise if the object is comparatively close to the lens

**NOTE:** Do not rotate the focus control ring too many turns. Otherwise, the image will be unclear again.

## **Use your Webcam with iVisit**

You may also use this webcam with iVisit, a video-conferencing program, which can be downloaded from the internet by accessing the website <http://www.िवित.com>. Double-click the downloaded .exe file to install the iVisit program.

1. Start the iVisit program and you should see a live picture on a pop-up window
2. To alter various settings, click **Setting > Preferences** from the pull-down menu and click on the tabs at the top of **Preferences** window.
3. Close the windows when you are done.

**NOTE:** Do not unplug the WebCam when it is in operation.

Please be reminded to select 176 x 144 pixels when using the i-Visit. If you see unclear video when using i-Visit, please change the setting:-

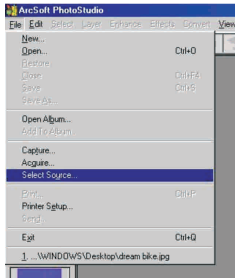
The steps:-

- Connect the PC camera to the PC's USB port and open i-Visit
- When you see unclear video
- Click **Setting, Preferences, Video**
- Select the Source "**Microsoft WDM Image Capture**" in the dialog panel
- Click "**Format**"
- Change the color space to 1420 and the output size to 176 x 144
- Click **OK**
- Exit i-Visit and Re-boot the PC
- Open i-Visit, and the video go back to normal.

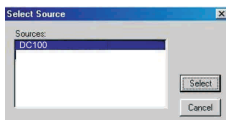
## Use Arcsoft PhotoStudio

**NOTE:** The graphics shown are based on the user interface in Windows 98SE.

1. Start the Arcsoft PhotoStudio 2000 application
2. Search through **File** and click **Select Source** icon from the pull-down menu



3. Highlight DC100 and click **Select** button.



4. Search through **File** and click **Acquire** icon from the pull-down menu. You should see a live picture from the opened window.

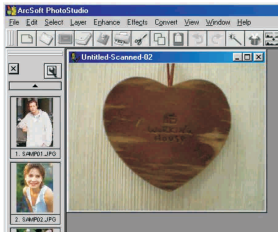


5. To take a photo of what you see on the window, click **Capture > Snapshot** from the pull-down menu of the opened window





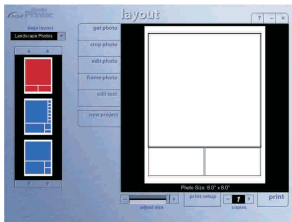
- Now the photo taken is shown on the window and you can save or edit your photo



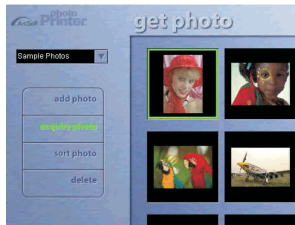
## Use Arcsoft PhotoPrinter Pro

**NOTE:** The graphics shown are based on the user interface in Windows 98SE.

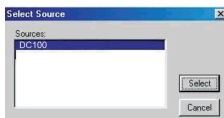
- Start the Arcsoft PhotoPrinter Pro application
- Click **get photo** icon



- Click **acquire photo** icon.



- From the pop-up window, highlight DC100 and click Select button



5. You should see a live picture from the opened window.



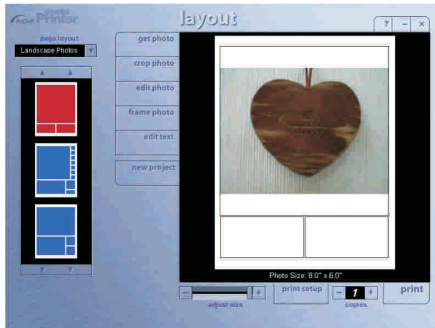
6. To take a photo of what you see on the window, click **Capture > Snapshot** from the pull-down menu of the opened window



7. Close the live window and you should see the picture you just took on the last thumbnail. Double-click on the thumbnail.



8. You may now set your print options.



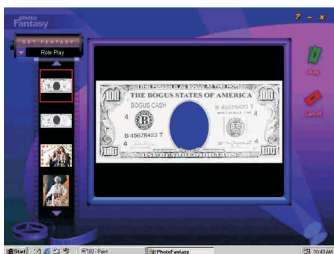
## Use Arcsoft PhotoFantasy

**NOTE:** The graphics shown are based on the user interface in Windows 98SE.

1. Start the Arcsoft PhotoFantasy application
2. Click **Get Fantasy** icon. You need to put the program CD-ROM to the CD-ROM drive to view the sample photos.



3. Select the template you want and click **Okay** icon



- Click **get photo** icon and then click **Acquire** icon at the bottom



- From the pop-up window, highlight DC100 and click **Select** button.



- You should see a live picture from the opened window.



- To take a photo of what you see on the window, click **Capture > Snapshot** from the pull-down menu of the opened window



8. Click Okay icon



9. You can modify the image by using the icons on the panel.



## Additional Information

### Open Manual.pdf in CD-ROM

A soft copy of the User's Manual (named Manual.pdf) for your Webcam is stored in the CD-ROM

To open Manual.pdf file in CD-ROM:

1. Insert the supplied CD-ROM into the CD-ROM drive
2. Click Start>Run on Windows Taskbar
3. Specify the CD-ROM drive letter and click OK button
4. Double-click Manual.pdf icon to open the file

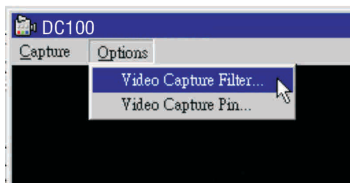
### NOTE:

Acrobat Reader is provided for you to open the Manual.pdf file. If it has not yet been installed in your computer, double-click the ar40eng.exe file in the CD-ROM and follow the installation instructions.

## Options Setting for DC100

### Video Capture Filter...

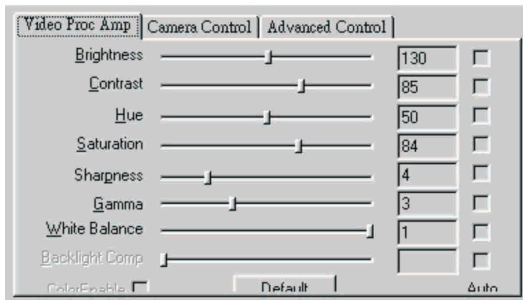
1. When acquiring through the webcam, the following window will display. Click **Options** > **Video Capture Filter...**



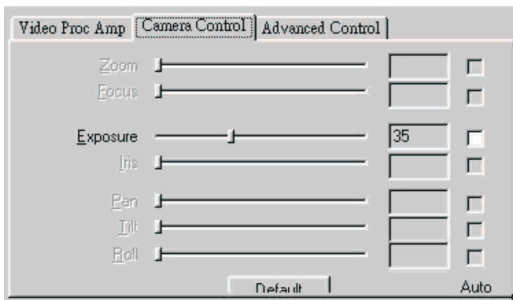
2. The following window will show.

You can adjust the video image settings by pushing the slider to the right or left.

**NOTE:** White Balance 1 means Auto white balance.

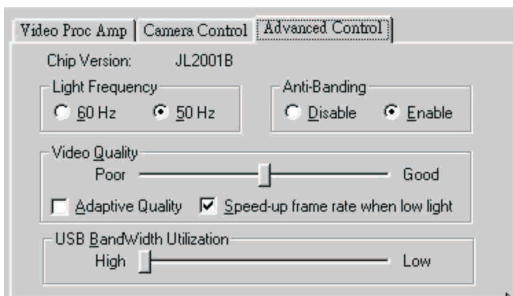


3. In **Camera Control** tab, you can set the exposure level by pushing the slider. This will affect the brightness of the image.



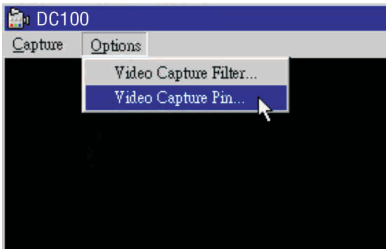
4. In **Advanced Control** tab, you can set the following:

- Light Frequency – 60Hz for USA, 50 Hz for Europe
- Anti-Banding – Selecting Enable to avoid wave-like noise due to 50/60 Hz light source
- Video Quality – Good quality means low frame rate
- Adaptive Quality – Auto-improve the video quality
- Speed-up frame rate when low light – Makes video smoother in low-light conditions
- USB Bandwidth Utilization – High means higher frame rate

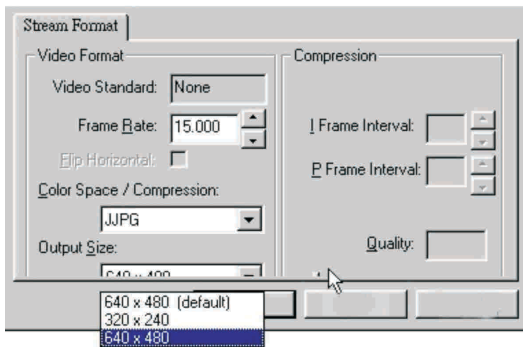


## Video Capture Pin...

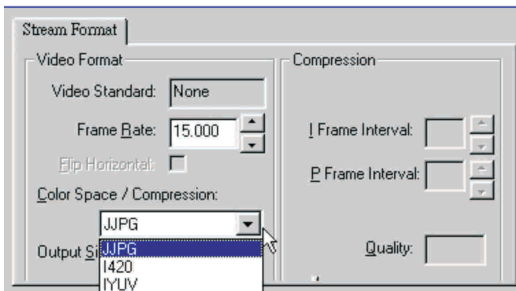
1. When acquiring through the webcam, the following window will display. Click **Options** > **Video Capture Pin...**



2. The following window will show.



- Output Size – You can select the resolution of your acquired image. The default is 640x480 pixels. With Color Space / Compression selected as JPEG, you can also select 320x240. For other Color Space / Compression formats, resolutions of 352x288 and 176x144 are also available.



- Color Space / Compression – JPEG, I420 and IYUV formats are available.  
**NOTE:** JPEG is good for video recording.
- Frame Rate: Changing this value does not have any effect.

## Product Specifications

Frame rate in QVGA mode	~10 fps
Frame rate in VGA mode	~5 fps
CMOS sensor resolution	VGA 640x480 pixels
Focusing range	From 20mm to infinity.
Lens	1 plastic lens, F3, 40mm(equiv)
Viewing angle	52 degrees.
Selectable resolution	Normal : 640 x 480 Reduced : 352x288, 320x240, 176x144
Output port	USB A type to PC USB port, cable length 1.8m.
Image format	JJPG, I420, IYUV
Video settings	Contrast, hue, saturation, sharpness, brightness, gamma, 50/60Hz selection etc.
Camera driver	PC only. English version.
Supply voltage from USB port	5V +/-10%, 0.2A
Software	Arcsoft PhotoStudio, PhotoPrinter Pro and PhotoFantasy
Operating system	Win 98, 98SE, Me, 2000, XP
Suggested webcam program	iVisit, Microsoft Netmeeting.

## Trademark Acknowledgements

Microsoft, Windows 98, Windows 2000, Windows Me, Windows XP are registered trademarks of Microsoft Corporation.

Pentium is a registered trademark of Intel Corporation.

Arcsoft PhotoStudio, PhotoPrinter and PhotoFantasy are trademarks of Arcsoft, USA.

All other product names mentioned herein are trademarks or registered trademarks of their respective owners.