Digital Camera
DC1500N

Video & Photo Software

USER GUIDE

Contents

Electromagnetic Compatibility Notice

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

Warning: Changes or modifications to this unit not expressly approved by the party responsible for compliance could void the user's authority to operate the equipment.

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 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 correcting 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.

NOTE:
• Shielded cables are used with this unit to ensure compliance with the Class B FCC limits.
• A high electrostatic discharge environment may cause the camera to malfunction. Reset the camera by taking out the batteries and re-inserting them.

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 USB cable 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.

Precautions

Thank you for purchasing DC1500 Digital Camera. Please read the following precautions carefully before using the product.

- This camera is not resistant to water and should not be used outdoors in snow or rain. If accidentally dropped in water, please quickly pour out the water. Dry it with sunlight or an air-blower.
- Protect it from excessive humidity. It will wet the lens and the pictures taken will be blurred.
- Do not expose the camera to sand
- Do not attempt to disassemble the camera yourself. Always take it to an authorized service facility for repair.
- To store the camera, wrap it in a piece of clean, soft cloth and place it in a cool, dry, dust-free place. Do not place the camera directly under the sun or in any hot circumstances.
- Take care of the lens. Use special cloth to clean it.
- Do not scratch hard objects against the Lens, Status LCD Panel, or Viewfinder.
- If the Status LCD Panel is damaged, do not touch it.
- Condensation is a problem when bringing cold equipment into a warm room. Try to put the camera in a plastic bag so condensation forms on the outside of the bag.

About batteries

- Battery life is shorter for poor quality batteries.
- If nothing at all appears on the Status LCD panel, the batteries may be inserted in wrong orientation.
- The batteries may explode or cause burns if disassembled, recharged, shorted, exposed to high temperature, or disposed of in fire.
- Alkaline or Ni-MH batteries can be used with this camera. The camera may not function properly if you use poor quality batteries.
- Make sure all batteries are fresh, unused or fully charged.
- Ensure that batteries' orientation is correct when placing them in the camera
- Remove the batteries if you do not expect to use the camera for 1 month or longer.

Important: Do not connect camera to PC before drivers are installed.

Features of camera

1. Image Resolution: High resolution: 352x288 pixels (CIF), Low resolution 176x144 (QCIF)
2. 2MB SDRAM internal memory for holding 20 photos at CIF and 80 photos at QCIF
3. Front LED indicator (Illuminates when camera is on, flashes when using timer)
4. Status LCD panel with 2-digit-7-segment display.
5. Buzzer sounds differently to indicate different operation modes
6. Picture Retention (while battery power is supplied)
7. Battery Power (3 pieces of AAA alkaline batteries recommended (4.5V))
8. Auto Power Off when no operation for 30 seconds
9. TWAIN driver "My DSC" provided for downloading photos and AVI videos recorded with the camera
10. "PCCam" provided for recording AVI videos of size as large as your computer hard disk can hold
11. USB port for PC connection

System Requirements
- Personal computer with a Pentium 300MHz microprocessor (minimum) and a CD-ROM drive
- Windows 98SE / Me / 2000 / XP
- 32MB RAM for Windows 98SE, 64MB RAM for Windows Me/2000, 128MB RAM for Windows XP
- 500MB of available hard disk space for Windows 98SE/Me/2000, 1GB for Windows XP
- Color display monitor with 16 bit color or above
- Available USB port

Contents of package
- DC1500 Digital Camera   x 1
- Program CD (containing PhotoPrinter,   x 1
  PhotoFantasy, PhotoStudio,
  User's Manual and camera drivers)
- USB cable   x 1
- Quick Start Guide   x 1
- Warranty Card   x 1

NOTE: 3 pieces of AAA alkaline batteries needed for the Digital Camera are NOT included in this package.

Nomenclature
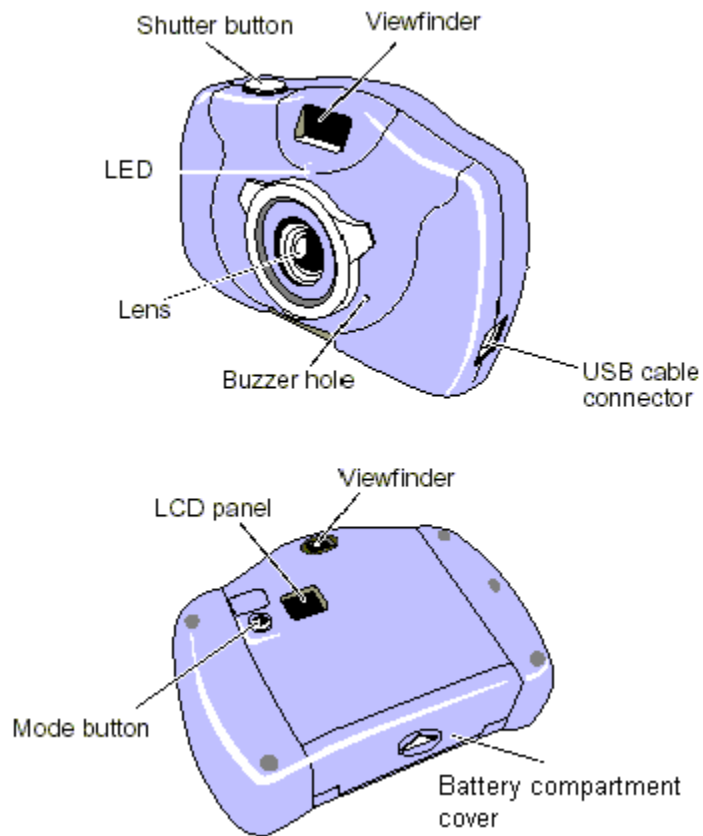
Installing batteries

1. Slide open battery compartment cover at the bottom of your camera.
2. Install 3 pieces of AAA size alkaline batteries into battery compartment as shown.
3. Make sure battery polarities are oriented exactly as shown.
4. Close battery compartment cover.
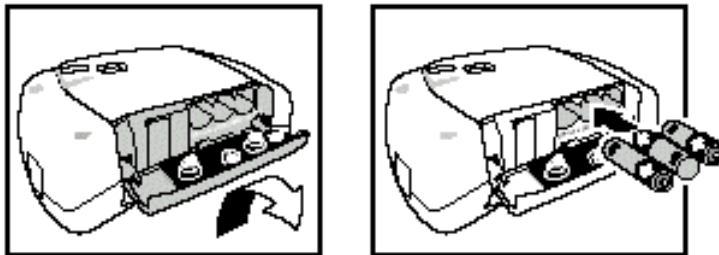
CAUTION – To avoid battery leakage

- Non-rechargeable batteries are not to be recharged
- Be sure to insert batteries in correct orientation
- Remove batteries from the camera before extended storage
- Always remove old or dead batteries from the camera
- Do not short-circuit the power supply terminals
- Check that the contact surfaces are clean and bright before installing batteries

Low Battery

If at anytime the frame counter information begins to flash in the LCD panel, the battery level is low. Download your photos to the computer and replace the batteries immediately.

Preparing to take photos
Turning camera on / off

Press **Mode** button to power on the camera. Two short beeps will sound.

(meaning High Resolution) will appear momentarily before (frame counter) is shown on the LCD panel, indicating that a maximum of 20 photos can be taken with high resolution.

To power off the camera, press **Mode** button repeatedly until "oF" displays on the LCD panel. Then press **Shutter** button.

> **Auto Power Off**
> With the camera on, if there is no operation for 30 seconds, the camera will automatically be turned off.

Selecting resolution

The camera is defaulted to High Resolution (CIF) mode .
To select low resolution (QCIF):

1. Press **Mode** button repeatedly until is shown on the LCD panel.
2. Press **Shutter** button to confirm your selection and "80" will appear on the LCD panel, indicating that a maximum of 80 photos can be taken with low resolution.

NOTE: After taking a few photos of low resolution, if you want to switch back to high resolution: **(1)** Press **Mode** button until appears on the LCD panel **(2)**

Press **Shutter** button to confirm your selection and the remaining number of photos that can be taken will be shown on the LCD panel.

Selecting AC mains frequency

This camera is set to your country's AC mains frequency (e.g. 60Hz for US). If you take photos under an electric light source in another country with a different frequency (e.g. 50Hz for Europe), you have to set the frequency to 50Hz or horizontal, black stripes will be found on the photos, due to incorrect mains frequency. There will be no problems when taking photos under sunlight.

To change the frequency:
1.   Press **Mode** button repeatedly until "60 (Hz)" or "50 (Hz)" is shown on the LCD panel
2.   Press **Shutter** button to change from "60 (Hz)" to "50 (Hz)" (or from "50 (Hz)" to "60 (Hz)" to match that country's AC mains frequency.

Taking a photo

Hold your camera in the way as shown below when taking photos.
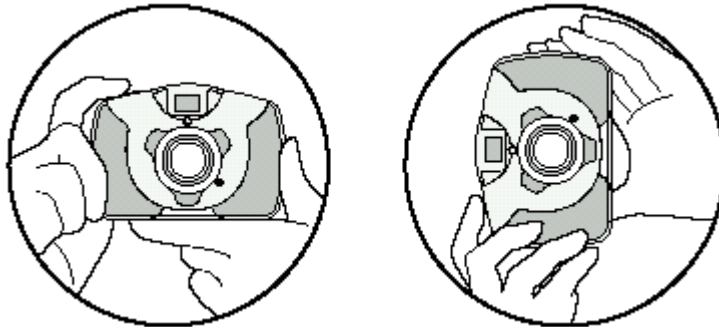
1.   Look through the viewfinder.

        NOTE: The focus is set to work best when taking photos of an object that is at least 2 feet away from the camera.

2.   Press **Shutter** button.
        You will hear a "beep" and the frame counter will count down 1 frame, indicating that an image has been taken.

        NOTE: If you do not hear the "beep" and/or the frame counter does not count down 1 frame, the photo has not yet been taken. Press **Shutter** button again to take the picture.

        Tip:

It is recommended that you take a few trial shots at different distances to see how each taken photo looks like.

Other Capture Modes
Taking photos in Continuous mode

1. Press **Mode** button until is shown on the LCD panel
2. Hold down the **Shutter** button to take photos continuously until the frame counter counts down to 00.

> **NOTE**: In Continuous mode, 6 photos will be taken in one second.

Taking photos with self-timer

1. Press **Mode** button until appears on the LCD panel
2. Press **Shutter** button. A beep will sound and the LED will blink for 10 seconds before a photo is taken.

Erasing photos
Erasing all photos at once

1. Press **Mode** button until is shown in the LCD panel.
2. Press **Shutter** button and will flash in the LCD panel. While is flashing, press **Shutter** button again. You will hear two beeps and all photos will be cleared.

> **NOTE**: If **Shutter** button is not pressed while is flashing, the frame counter will appear in the LCD panel in 5 seconds.

Erasing the last taken photo

1. Press **Mode** button until is shown on the LCD panel
2. Press **Shutter** button and the last taken photo will be deleted and the frame counter will change in the following pattern:
    When camera is in High Resolution mode:
    -   Erasing the last 1,2 or 3 photos of low resolution will toggle frame counter unchanged.
    -   Erasing the last 4 photos of low resolution will toggle frame counter to go up by 1
    -   Erasing the last photo of high resolution will toggle frame counter to go up by 1

    When camera is in low resolution mode:
    -   Erasing the last photo of high resolution will toggle frame counter to go up by 4

- Erasing the last photo of low resolution will toggle frame counter to go up by 1

Connecting camera to PC
Installing Arcsoft programs and camera drivers in Windows 98SE/Me
NOTE: The graphics shown are based on the user interface in Windows 98SE

1. Put the program CD into the CD-ROM drive, Autorun will commence.
2. Select your desired language
3. Change Destination Folder if necessary
4. Select components to install
5. Change program folder name if necessary
6. Check the checkbox to start camera drivers installation
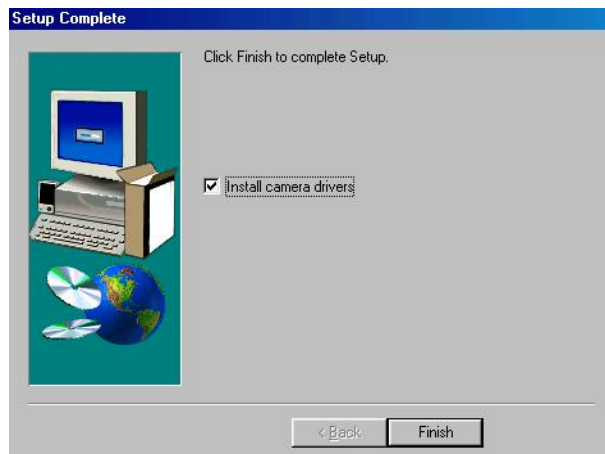
Installing camera drivers ......
7. When installation of My DSC is complete, restart your computer
8. After your computer is restarted, connect the camera and computer with the USB cable and the computer will recognize the camera.

Note: The installed camera drivers may conflict other USB devices in your computer system.

Installing Arcsoft programs and camera drivers in Windows 2000/XP
NOTE: The graphics shown are based on the user interface in Windows XP
1. Put the program CD into the CD-ROM drive, Autorun will commence.
2. Select your desired language
3. Change Destination Folder if necessary
4. Select components to install

5. Change program folder name if necessary
6. Check the checkbox to start camera drivers installation

   Installing camera drivers ....

7. When installation of My DSC is complete, restart your computer
8. After computer is restarted, connect your camera to the computer with the USB cable. The following screen will appear. Select the first radio button and click **Next** button

9. Click **Continue Away** button (for Win XP) or **Yes** button (for Win 2000) when you see the warning message
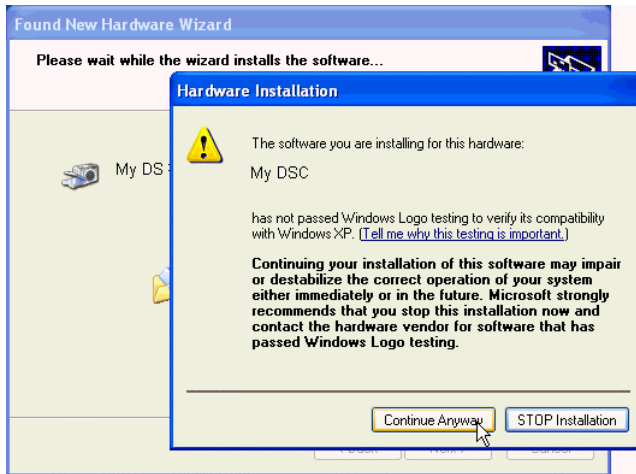
10. Click **Finish** button to complete the setup

Note: The installed camera drivers may conflict other USB devices in your computer system.

Downloading photos by using PhotoStudio
NOTE: The graphics shown are based on the user interface in Windows 98SE

1.   Take some photos with the digital camera
2.   Connect the camera to a computer with a USB cable as shown below. If connection is successful, a beep will sound.
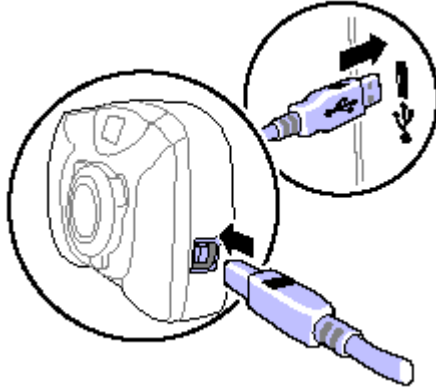
3.   Click **Start > Programs ("All Programs" for XP) > DC1500 Digital Camera Suite > PhotoStudio 2.0 SE** to open the Arcsoft PhotoStudio program

4.   Click **File > Acquire > Select Source** from the pull-down menu and select "My DSC"
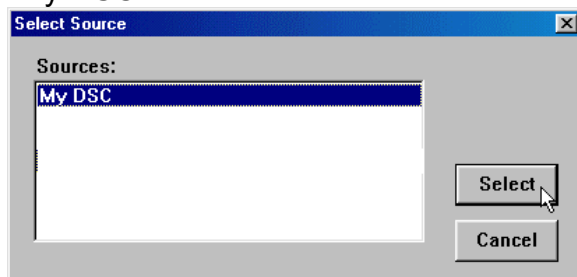
5.   Click **File > Acquire > Acquire** from the pull-down menu to open the following dialog panel. Click **Download photos** icon.

6.   Select "Download all photos" or "Just download # photos" and click **Download** button. If you select "Just download # photos", the first # pictures taken will be downloaded.

7.   Photo thumbnails will be downloaded. Click **Select all photos in this page** icon to select all photos on a page.

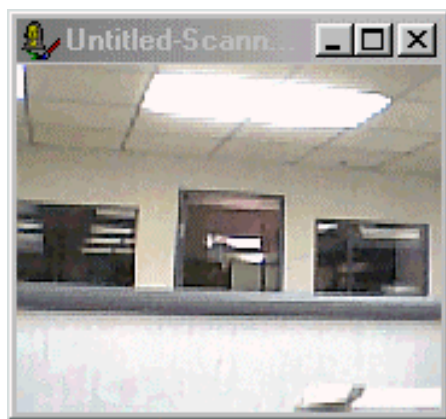8.   Click Page down icon to go to next page.

9.   Highlight the thumbnail(s) you want to download and click **Transfer photos** button.

10. You may edit the photo with the tools in PhotoStudio and then save it by clicking **File > Save** from the pull-down menu.

NOTE: If you want to know more about PhotoStudio or how to use it, you can consult its on-line help which is accessible by clicking "**?**" icon or "**Help**" on the pull-down menu.

Downloading photos taken in Continuous Mode as a video

Program "My DSC" can transfer your photos taken in Continuous Mode to AVI (video) format.

1. Take some photos in Continuous Mode with the digital camera. **NOTE**: It is recommended that you use Low Resolution mode so that you can take up to 80 pictures (i.e. up to 13 seconds of video playback)
2. Connect the camera to a computer with a USB cable
3. Click **Start > Programs ("All Programs" for XP) > My DSC > My DSC**
4. Click **Download photos** button from the following screen

5. Select "Download all photos" and click **Download** button.

6. Highlight the AVI file thumbnail and click **Save photos** icon

7. Enter the filename and click **Save** button

Tip:
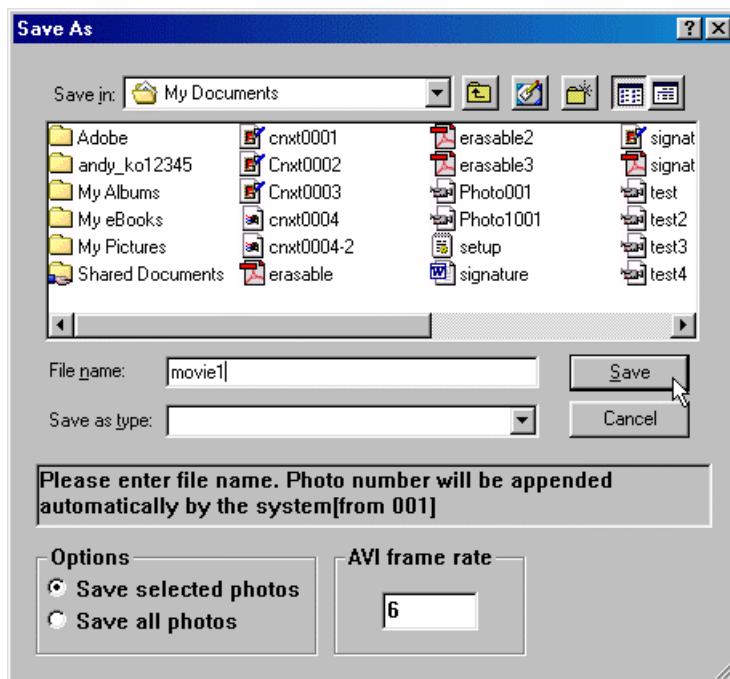● To change the video playback speed, change the AVI frame rate. The default value of frame rate is 6. Setting it to a larger value results in faster playback, while a small value results in slower playback.

8. Locate the saved AVI file. Double-click to play the movie.

Recording videos directly to your computer by using PCCam

Besides taking videos with your digital camera, you can record videos directly to your computer with the PCCam program.

1. Connect your camera to computer with a USB cable
2. Search through **Start>Programs ("All Programs" for Windows XP)>My DSC** and click **PCCam** icon
3. Select **Devices > My DSC** from the pull-down menu. You should see a live picture on screen. If you cannot see a live picture, click **Options > Preview** from the menu.

4. Click **File > Set Capture File** from the pull-down menu
5. Enter the filename for the video to be captured and click **Open** button. Make sure to enter avi as the file extension
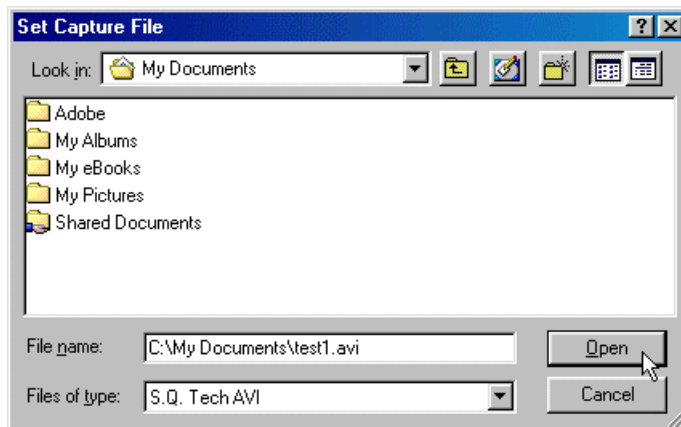
6. Keep the default value of 1 MBytes in the **Capture file size** field and click **OK** button.
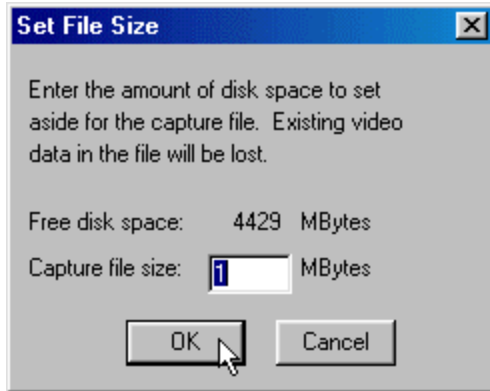
7. Click **Capture > Start Capture** from the pull-down menu
8. Select **OK** button to start video capture
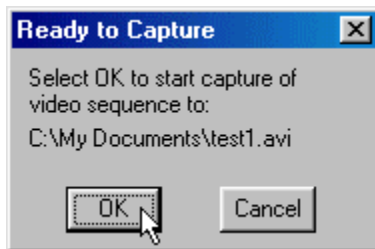
9. The time elapsed of the video capture is shown at the bottom of the screen
10. When video capture is finished, click **Capture > Stop Capture** from the pull-down menu or press **Esc** key on the keyboard

NOTE: If you cannot record any videos, try re-installing the camera driver by double-clicking "Setup.exe" icon inside "Drivers" folder at the root level of the supplied program CD, and record again.

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

1. Search through **Start>Programs ("All Programs" for Windows XP) > DC1500 Digital Camera Suite** and click **PhotoPrinter 2000** icon
2. Click **Get Photos** icon
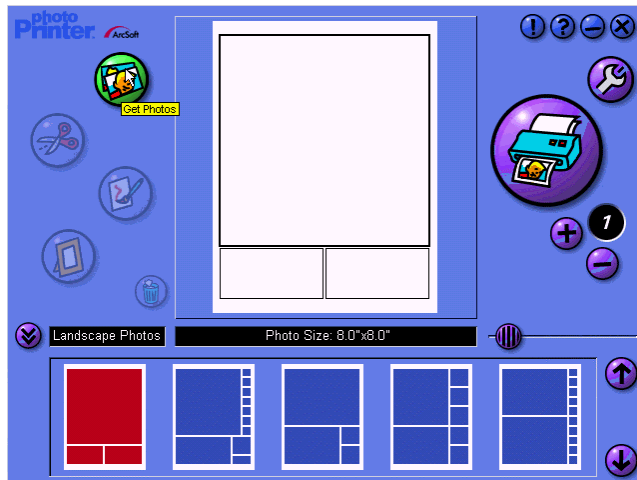
3. You may click **New** icon to create your new album, click **Add** icon to add photos already on your hard disk or other storage medium, click **Acquire** icon to add photos stored in your digital camera.

NOTE: Refer to "**Downloading photos by using PhotoStudio**" section for more details.

4. When photos have been added, double-click the picture thumbnail.

5. Now you can set you print options by using the icons and buttons on the following screen
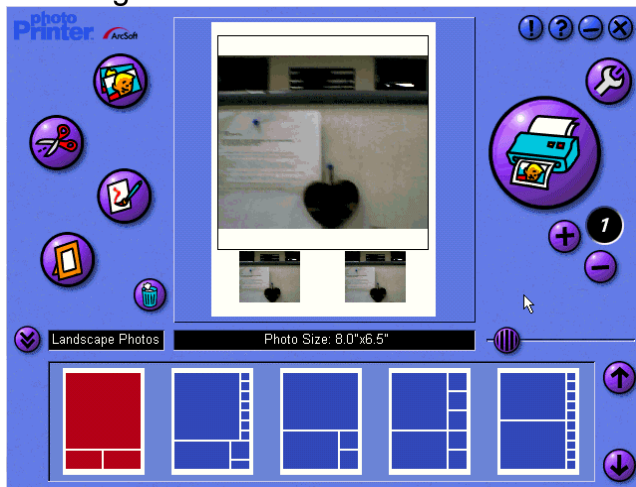
NOTE: If you want to know more about PhotoPrinter or how to use it, you can consult its on-line help which is accessible by clicking the "**?**" sign on the windows' upper right corner.

Using PhotoFantasy

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

1. Search through **Start>Programs ("All Programs" for Windows XP) > DC1500 Digital Camera Suite** and click **PhotoFantasy 2000** icon
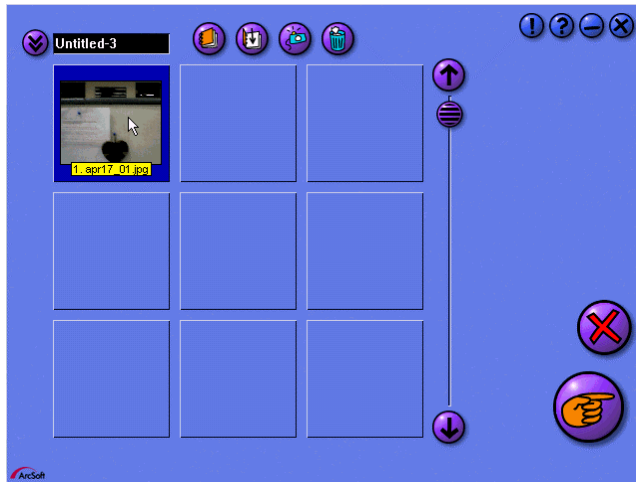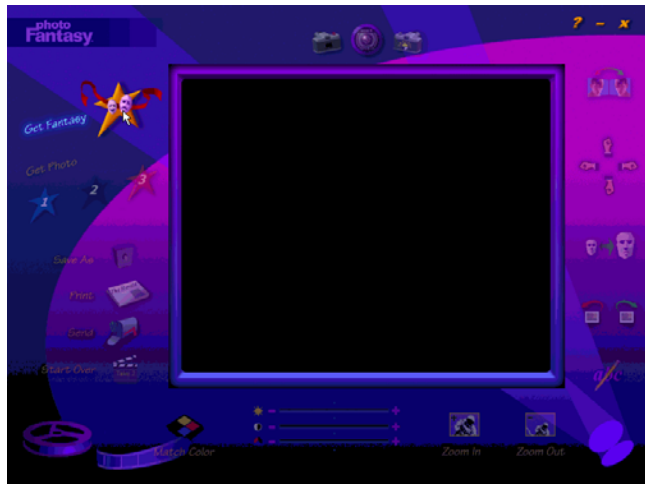
2.   Click **Get Fantasy** icon on the main screen to select a template for your photo to put on. You need to put the supplied program CD to the CD-ROM drive to view the sample photos.

3.   Click **Get photo** icon on the main screen to select a photo. To select a photo from your digital camera, click **Acquire** icon on the **get photo** window. If you want to select a photo already on your hard disk or other storage medium, click Add icon on **get photo** window.

      NOTE: Refer to "**Downloading photos by using PhotoStudio**" section for more details.

4.   You can modify the resulting image with the functions available on screen.


NOTE: If you want to know more about PhotoFantasy or how to use it, you can consult its on-line help which is accessible by clicking the "**?**" sign on the windows' upper right corner.

Additional Information

Opening the User's Manual on program CD

1. Search through **Start > Programs ("All Programs" for Windows XP) > DC1500 Digital Camera Suite** and click **User Manual** icon
2. The User's Manual will be opened if Acrobat Reader has been installed in your computer. If necessary, take the following steps to install Acrobat Reader.

    ### Installing Acrobat Reader
    *   Insert the supplied program CD in the CD-ROM drive
    *   Locate the file named **ar40eng.exe** at the root level of the program CD
    *   Double-click **ar40eng.exe** icon and follow the installation instructions

Uninstalling Arcsoft programs

1. Search through **Start > Programs ("All Programs" for Windows XP) > DC1500 Digital Camera Suite** and click **Uninstall** icon
2. Follow any on-screen instructions.

Product Specifications

Resolution	High: 352 x 288 (CIF) Low: 176 x 144 (QCIF)
Lens	F 3.0, 45mm (35mm Equiv.), Plastic
Internal Memory	2MB SDRAM
Number of pictures camera can hold	CIF: 20 QCIF: 80
Max. length of movie camera can hold	13 seconds at QCIF
PCCam recording frame rate	Approx. 4 fps at 320 x 240, 12fps at 160 x 120
Battery Power	3 pcs of AAA alkaline batteries (4.5V)
File Format	BMP, JPEG, GIF
Focusing Range	2 feet to infinity
Operating Conditions	0 ~ 40 degree Celcius
Dimensions	110(W) x 75(H) x 40(D) mm
Net Weight	105g without batteries

* We continue to improve upon our products and therefore specifications are subject to change without prior notification.*

Frequently Asked Questions (FAQs)

1. I always take poor quality photos at home, why?
    It may be due to insufficient light intensity at your home. Try to increase the illumination of your home when taking photos. However, it is not recommended that you use the camera indoor or at night where light intensity is not sufficient.

2. Why would I get dark images even when the photos are taken outdoor?
    The objects may be in a shade, for example, under a tree.

3. How can I avoid getting dark images?
    Pay attention to the background light intensity as it will affect the exposure of the main object. The camera can calculate the total light intensity of the picture and fine-adjust the exposure. If the background is too dark, the object will be too bright. If the background is too bright, the object will be too dark. Change the angle where you take the pictures so that the object and the background are with similar light intensity.

4. Why would I get fuzzy, unclear photos?
    There might be some movements of your body or hands when taking photos. Hold the camera steadily with both hands. Use the first finger of your right hand to press the shutter. Stand on solid ground. Do not move or run when pressing the shutter. Even tiny movements will result in fuzzy photos.

5. Why would I get some blurry areas in a photo?
    You may have covered part of the lens when taking the photo. Or there may be some grease on the lens. Remove it with a dry and soft cloth.

6. Can I take a photo of the Sun?
    DO NOT point your camera directly to strong light sources such as the Sun as it may damage the CMOS image sensor inside the camera. If you do so, the background will be too dark and you see nothing in the photo.

7. Why would image colors change if I take photos indoor?
    The use of light bulbs indoor will affect the image colors you see on photos. To improve the situation, use daylight bulbs or fluorescent lamps instead.

8. How should I position my camera to get good quality images?
    Keep the viewfinder horizontal as much as possible. Try to kneel down if necessary.

9. Why would I get horizontal, black stripes in photos taken abroad?

The camera is set to your country's AC mains frequency (e.g. 60Hz for US). If you take photos under an electric light source in another country with a different frequency (e.g. 50Hz), you will get horizontal, black stripes in those photos, due to incorrect mains frequency. There will be no problems when taking photos under sunlight.

10. Can I use the camera when it is raining?
No, DO NOT use the camera under rain since the camera is not water-resistant. Water drops may get inside the camera and damage the parts.

11. How can I get a hard copy of the User's Manual?
The User's Manual, named Manual.pdf, is provided in the CD-ROM in PDF format. It can be opened and printed with Acrobat Reader. This program, named areng40.exe, is included in the supplied CD-ROM. Double-click on the areng40.exe icon and the installation will start automatically. After installation, double-click the Manual.pdf icon. Acrobat Reader will be launched for you to view the User's Manual. To print the manual, select File>Print from the pull-down menu.

12. Can I take photos in dark environment?
No, the camera only operates in situations of normal light intensity.

13. Is it a disposable camera?
This is not a disposable camera. You can use it whenever the battery power and memory in the camera are available.

14. What kind of batteries should I use with this camera?
The use of alkaline batteries is recommended since they last longer and perform better than other ordinary batteries.

15. Can I use rechargeable batteries?
The use of rechargeable batteries is not recommended since their output voltage is lower than that of the alkaline batteries. Rechargeable batteries get low battery power easily.

16. What should I do when I get nothing or some weird symbols on the LCD?
Check to see if the batteries are correctly inserted and the battery compartment door is secured. If the problem persists, the batteries may be totally dead. Replace them with new ones.

17. How come the camera is not turned on after new batteries are inserted?
- The batteries may have been inserted incorrectly.
- The camera may be broken. It may have been dropped into water or against hard surfaces.

18. Can I take close-up shots of an object?

Yes, if it is more than 0.3m (1 ft) away. The object will be out of focus at a distance less than 1 ft away.

19. What should be noted during photos download?
    If you disconnect the camera and computer when you are downloading photos (with Acquire dialog box opened), and then reconnect them, you need to close the Acquire dialog box and then re-open it for the computer to recognize the connection to the camera.

20. What should I do when my PC cannot recognize the camera when using the Arcsoft programs?
    You should disconnect the USB cable from the camera and reconnect it.

21. Can I use this camera as a PC camera (web cam)?
    Yes, if there is a USB port on your computer and an appropriate software, such as Microsoft NetMeeting, is used.

22. How many photos can I take with this camera?
    - 20 photos with 352 x 288 pixels
    - 80 photos with 176 x 144 pixels

Trademark acknowledgements

TWAIN driver (My DSC) is developed by SQ Technology Limited, Taiwan

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

Pentium is a registered trademark of Intel Corporation.

PhotoFantasy, PhotoPrinter and PhotoStudio are licensed by Arcsoft, USA.

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

Responsible party

Legal Company Name: Argus Industries, Inc.
Address: 1100 Howard Street
                        Elk Grove Village, IL 60007
                        www.arguscamera.com
                        E-Mail: argus@arguscamera.com