Getting the Best Image with Your Color QuickCam

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Getting the Best Image

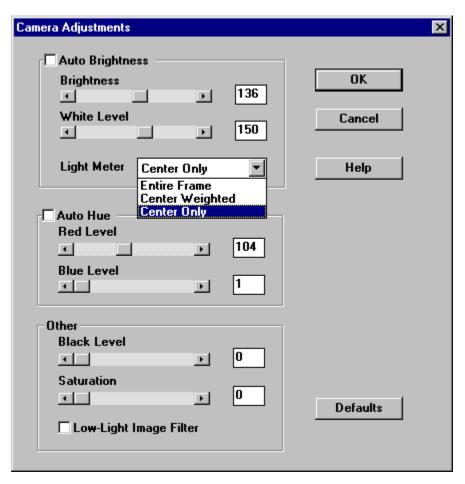
There are two steps to getting the best image for QuickPICT and QuickMovie. First, make sure that you have enough light on the scene. All of the other image adjustments depend on the presence of an adequate amount of light. As a rule of thumb, if the lighting is such that you would use a flash with a normal 35mm camera, you need to add more light for your QuickCam. This is probably true in most home environments where illumination is provided by one or a few lights.

Once you have enough light, use the <u>Camera Settings</u> dialog to fine-tune your image.

Camera Settings

To adjust the image, choose Camera Adjustments from the Settings menu in both QuickPICT and QuickMovie.

The Camera Adjustments dialog will appear as shown below.



You can change the following values:

Brightness. To adjust the brightness of the image, use the Brightness and White Level sliders. If you choose Auto Brightness, QuickCam will adjust both of these values automatically, and their respective sliders will be grayed-out.

- Brightness
- White Level

Hue. To adjust the hue of the image, use the Red Level and Blue Level sliders. If you choose Auto Hue, QuickCam will set both of these values automatically, and their sliders will be grayed out. The amount of green is fixed, and can be increased by lowering the relative amounts of red and blue.

- Blue Level
- Red Level

Black Level and Saturation. Use these sliders to make the final adjustments to the

image.

- Black Level Saturation

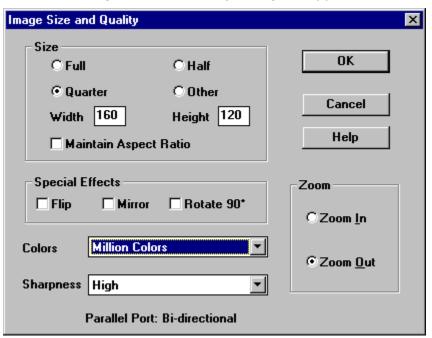
Light Meter

Choose a <u>Light Meter</u> from the Pull-down menu.

 $\begin{tabular}{ll} \textbf{Low-Light Image Filter} \\ \textbf{Use the } \underline{\textbf{Low-Light Image Filter}} \\ \textbf{to prevent the appearance of random colored pixels.} \\ \end{tabular}$

Image Size and Quality

To adjust the size and quality of the picture, choose Image Size and Quality from the Settings menu. The Image Size and Quality dialog will appear as shown below.



You can adjust the following values:

- <u>Image Size</u>
- Color Depth
- Sharpness
- <u>Zoom</u>
- Special Effects

Getting the Best Frame Rate

Maximizing the frame rate is important in many situations, especially if you are using your Color QuickCam for videoconferencing. Here are some tips for increasing the frame rate.

- Use Thousands (VIDEC), not Thousands (Uncompressed), or millions. In this mode QuickCam implements the VIDECTM (Video Enhanced Digital Compression) compression, which will increase frame rates.
- Another important factor in getting the highest possible frame rate is having enough illumination. The less light there is, the longer the shutter will have to stay open to capture each frame, and subsequently the lower the frame rate. Simply by increasing the light level, you can decrease the necessary shutter speed (the Brightness setting) and increase the frame rate.
- If you do not need the maximum amount of detail in each frame, choose a reduced Sharpness level. If you choose the middle or the lowest value for Sharpness, you will get higher frame rates than if you choose the highest Sharpness value.
- Make sure that your monitor is set to display the same number of colors as the QuickCam is capturing. For example, if you choose thousands of colors from the menu, make sure your monitor is also set to display thousands of colors. If QuickCam has to dither the image to match your display, frame rates will decrease.
- Choose a smaller image size. Capturing a smaller image size results in faster frame rates.
- Make sure QuickMovie is the only application running. Close all other applications.

Light Meter

Use the Light Meter pull-down menu to choose how QuickCam measures light when it is automatically setting the brightness.

- If you choose **Entire Frame**, QuickCam will sample the entire image to determine the best average brightness setting. If the background is very much lighter than the center of the image, you may not get best results with this setting. For example, if you are using your QuickCam to videoconference and you are sitting near a bright window, your face may be washed out.
- If you choose **Center Weighted**, the Light Meter will assign more weight to the brightness at the center of the image. This means that a bright area on the periphery will not overwhelm the area at the center.
- If you choose **Center Only**, the Light Meter will sample the center only, and will ignore the areas at the periphery. If you are videoconferencing, this will probably yield the best results.

Brightness

The Brightness slider determines the shutter speed. When the slider is to the right, the shutter speed will be at a maximum. As a rule, you should keep this to a value of 50 or less. If you cannot see a reasonable picture with Brightness set to 50, you need to increase the amount of light in the room. If you use a Brightness value over 50, you will begin to see blurry images and the frame rate will decrease.

White Level

This sets the value of white in your picture. To adjust it manually, take a white item such as a piece of paper and hold it in front of the camera. Begin with the White Level slider all the way to the left, and move it to the right until the white item just begins to appear white.

Red Level

This adjusts the level of red in your image. If there is too much red, move the slider to the left. If there is not enough red, move the slider to the right.

Blue Level

This sets the level of blue in your image. If there is too much blue, move the slider to the left. If there is not enough blue, move the slider to the right.

Black Level

This sets the value of black in your picture. Take a black item and hold it in front of the camera. Begin with the Black Level slider all the way to the left, and move it to the right until the black item just begins to appear black.

Saturation

This determines how intense the color is. The further to the left, the more washed-out the colors will appear. If a light source in the picture shows a blurring or icicle effect, decrease the Saturation.

Image Size

QuickCam can capture images up to 640×480 pixels in size. Larger image sizes will require more disk space when you save your snapshots and movies. Larger image sizes also slow down the rate at which QuickMovie captures frames when it records a movie. To increase the frame rate, choose a smaller size.

To choose the size of the image, make a selection in the Size area at the top left of the Image Size and Quality dialog.

- Click Full for a 640 x 480 picture
- Click **Half** for a 320 x 240 picture
- Click **Quarter** for a 160 x 120 picture
- Click **Other** to enter another size, up to a maximum of 640 x 480. Enter the size in the Width and Height boxes. If you want to keep the relative height and width, click Maintain Aspect Ratio.

Color Depth

To change the color depth, use the Colors drop-down menu. There are three choices:

- 256 Colors
- 256 Grays
- **Thousands (VIDEC).** VIDEC (Video Digitally Enhanced Compression) was developed by Connectix to give faster frame rates.
- Thousands (Uncompressed).
- Millions.

Thousands (Uncompressed) or **Millions** will yield the highest-quality video, but **Thousands (VIDEC)** will give the fastest frame rates.

TIP: If you choose Thousands (VIDEC) to record your movie, people who do not have a Windows Color QuickCam will not be able to view your movie unless you either include the VIDEC decompressor or uncompress the movie when you save it. Check our Web site (http://www.connectix.com) to download the VIDEC decompressor.

Sharpness

The **Sharpness** determines how crisp the image looks.

- If you choose **High** sharpness, the picture will look crisp and edges will be well-defined, but frame rates will be lower.
- If you choose **Medium** sharpness, QuickCam will use 2:1 decimation, which means that it will send every other pixel from the camera. The picture will not be as sharp, but frame rates will increase somewhat. This is a good setting for videoconferencing, but you will get better frame rates by choosing Low sharpness.
- If you choose **Low** sharpness, QuickCam will use 4:1 decimation, which means that it will send every other pixel and every other horizontal line from the camera. The picture will appear somewhat blurry or pixellated, but frame rates will be high. This is probably the best setting if you are using your color QuickCam for videoconferencing, especially if you are using a 28.8 modem.

Special Effects

- To flip the image upside-down, click the Flip checkbox. The image at the right of the dialog will be flipped. This is useful if you want to turn your QuickCam upside down.
- To create a mirror image, click Mirror. The image at the right will be mirrored.
- To rotate the image 90 degrees (from Landscape to Portrait orientation), click Rotate 90 degrees.

ZoomTo zoom the image in or out, click Zoom In or Zoom Out.

Low-Light Image Filter

This box should be checked to prevent the random appearance of colored pixels at low light levels. In order to capture images at low light levels, your QuickCam, like any camera, requires longer exposures. One side-effect of this situation is known as dark current, where the CCD in the QuickCam picks up random charges during a long exposure. These charges build up and cause some pixels to display color (Holiday lights). The longer the exposure, the more this effect will be apparent.

If you turn off this checkbox, you may see the colored pixels at low light levels.

Contacting Connectix

In the unlikely event that you have a problem with the QuickCam hardware, or with the software supplied by Connectix, please read this section first.

Contacting Connectix Support

If you have questions or problems with QuickCam, contact us by telephone, by fax, or via electronic mail. Try the following first:

- Check the ReadMe file. This has information on known problems and solutions.
- Write down the events that lead to the problem. Have you changed anything in your computer recently?
- Have the following available when you contact Technical Support:
- Registration number on the Registration Card
- Software version number on the installer
- PC model
- Windows version
- How much RAM is installed

Connectix Technical Support can be contacted at the following online services:

Online Service Mail Address Forum Location
America On-Line Connectix
CompuServe 75300, 1546 Forum Location
Keyword = Connectix
Go CONNECTIX

You can also contact us on the World Wide Web, or by e-mail, fax, or phone:

WWW: http://www.connectix.com for general Connectix information

E-mail: cqcwsupp@connectix.com (Color QuickCam) qcwsupp@connectix.com (Grayscale QuickCam)

Fax: 415-571-5195 Phone: 415-571-5100

800-650-8857 (US and Canada only)

Contacting Connectix Sales

Contact Connectix Sales for more information about QuickCam volume sales , QuickCam for Macintosh, or other Connectix products.

Internet: sales@connectix.com

FAX: 415-571-5195

Phone: 800-950-5880 or 415-571-5100 (Sales only)

Contacting Connectix Support in Europe

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Germany 0130-823887 (toll-free)
France 0800-917943 (toll-free)
Britain 0800-966199 (toll-free)
Holland 20-5814384

For all other European countries, dial +31-20-5814385. This number is in Holland, however information will be provided in English.

European Addresses

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