*.avi
 AVI is the format used for movies created with Microsoft Video.

*.bmp
BMP or bitmap is the most common format for pictures used   on the Windows platform.   They can be used as a desktop background picture or imported into just about any Windows program.

*.tif

TIF stands for tagged image file format and is used by many computer platforms for both faxing and desktop publishing.   If you need to give an image to say a MAC user then this would be a good format to use as most MAC drawing programs can utilize this picture type..

Camera Adjustments

Brightness
The brightness slider is used to control the lightness or darkness of the picture.   It is usually best to set the radio button for automatic.
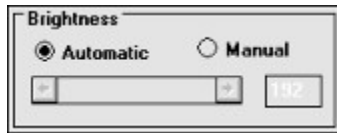
If you click on Manual a scroll button will appear on the scrollbar.   Dragging the scroll button to the right will increase the brightness whereas dragging it to the left will decrease it.   Please note that increasing or decreasing the brightness is accomplished by varying the <u>exposure</u>. This means that if you need to set the brightness very high to get an acceptable image then the picture will be **very** sensitive to movement.   A general rule of thumb would be: the higher the brightness, the longer the QuickCam takes to generate an acceptable picture.   In a case like the above it would be better to increase the lighting.

The slider can also be adjusted by clicking the   buttons.   Each click will increase or decrease the brightness by one level.

Manual
This enables you to adjust the brightness by controlling the scroll bar.

Automatic
This will let the QuickCam adjust the brightness based upon the current lighting condition.   If the lighting is poor, the QuickCam will increase the brightness, so that the picture will appear brighter.

Note:You can also use the <u>Brightness Slider</u> under the picture window to control the brightness.

Contrast
Sets the difference between the various shades of gray.   This is also set by moving the scrollbar back and forth.   Click the Reset button to set the contrast back to the QuickCam default setting.

White Balance
This setting adjusts the amount of white to black for your camera and surrounding lighting.   If the picture looks washed out or consists solely of whites and light grays, move the white balance slider to the left to decrease the amount of white in the picture.   If the picture looks dark or consists solely of dark grays and blacks, move the slider to the right to increase the amount of white.   You should set the white balance so that the picture covers the spectrum fully from black to white with a wide range of grays in between. To let the camera determine the best setting, click the Reset button for White Balance.

Note: If you will not be moving the QuickCam from place to place. you should only have to set white balance once. If you move the camera to another location, you may have to reset the white balance for the lighting conditions of the new location.

Capture Rate

Setting the capture rate allows you to choose how many frames per second you want to try to capture.   If you have set the capture rate set higher than the current situation will permit then you will get a message informing you how many frames have been dropped.   If you drop too many frames the video will appear jerky.   Please see Image Size and Quality,   Camera Adjustments, and What to do if your frame rate seems too slow if this is occurring to you.

Contacting Connectix Technical Support

If you are having trouble with your QuickCam and can not find the solution in either the manual or the on-line help you can then contact Connectix Technical Support.   The technical support number is **1-800 650-8857**.   We also have a Website on the internet.   The address of that site is http://www.connectix.com.   We have forums on CompuServe (GO:MACAVEN), AOL (keyword-Connectix), or your can email us at support@connectix.com.   We regularly post our software updates to our forums and our Website.

QuickCam for PC
Help Contents
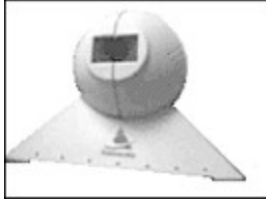
QuickPict
QuickCam for the PC comes with two easy to use programs to help you get started in the world of Multimedia.   The first program is QuickPict.   QuickPict is the software for taking still pictures with the QuickCam.   These pictures can then be copied to the windows clipboard and used in any Windows program or saved as either *.bmp or *.tif files.

Taking pictures

Using the Brightness Slider

Image Size and Quality

Camera Adjustments

What to do if your frame rate seems too slow

What type of parallel (LPT) port do I have?

QuickMovie
The second program that is included is QuickMovie.   QuickMovie enables you to create movies using your QuickCam.   These movies are created using Microsoft's *.avi format.

Contacting Connectix Technical Support

Image Size and Quality

Image Size
You can choose from a number of preset sizes for your picture or movie.   The image size is expressed in <u>pixels</u>. The largest picture QuickCam can take is 320x240. The smallest preset size is   40x30. To get a frame rate of 15 frames per second when recording using QuickMovie, we recommend a picture size of 160x120.

Grays
The QuickCam can take still pictures or movies with either 16 shades of gray or 64 shades of gray.

16-grays is recommended for QuickMovie. You will get a higher frame rate in your movie, because a frame with 16 shades of gray contains much less information than does a frame with 64 shades of gray.

64-grays is recommended for still pictures.   The picture will be sharper with more shades of gray.

Zoom
You can adjust the zoom with the QuickCam software.

Zoom In
When the image size is 160x120 or smaller, you can select Zoom In to zero in on a section of the picture.   This will allow you to see that section in greater detail.

Zoom Out
Select Zoom Out to see the wider viewing area. When the image size is 200 x 150 or larger, The QuickCam is always in Zoom Out mode.

Including Sound in Your Movies

As long as you have a microphone hooked up to your sound card you can add sound to your movies. The QuickCam itself does not have a microphone built-in.   If you find sound is not being recorded then please check to see if you are able to record sound with the Sound Recorder applet that is included with Microsoft Windows.   If you find your microphone is not functioning with the Sound Recorder then you will need to call your sound card vendor for assistance.   Once they have gotten you microphone to work with Sound Recorder then it will then you will be able to record sound in your movie.

Making Movies

In order to be able to record with the QuickCam the [icon] icon in the iconbar needs to be
[icon] (depressed).   You will then see a red button
[icon]   on the bottom of the view Window.   This button represents the record button on a
Camcorder.   When this button is pressed in you will see the capture dialog box.

You will begin recording   when you click the begin recording button.   To end the recording click
the end button.

Copy and Paste in QuickMovie:
It is not currently possible to use the clipboard with a recorded QuickMovie.   It turns out this
may be a limitation
in Microsoft Video.

Troubleshooting

QuickMovie

QuickMovie contains many of the same controls and concepts that are used by QuickPict.   We have included these along with the new items in the following:

Capture Rate

Including Sound in Your Movies

Making Movies

Saving Your Movie

Image Size and Quality

Camera Adjustments

What to do if your frame rate seems too slow

What type of parallel (LPT) port do I have?

Note: If you have recorded a movie with QuickMovie and not saved it, QuickMovie will then ask you if you would like to save the movie you have just recorded.

Saving Your Movie

When you save your movie you will notice a button on the Save As dialog box. When you click this button you will see a list of video compression routines that are available to you.   When you save your movie you have to option of using one of these compression routines.   Please see the manual for more information on this topic.   One note however is that it can take quite a long time (several minutes)   for a movie to be saved if you are compressing it while your are saving the file. This is true even if you have a fast computer.   When you save your move you will see workspace.avi as a file name in the Save As dialog box.   This is normal as workspace.avi is the normal working file name.   Do not try to play this file as it will not play.

Taking Pictures

To take a picture, simply click the [Take Picture] button.   If you have a sound card on your system you will then hear a camera click sound

You can then choose to save the picture as a BMP or TIFF file or copy it to the Windows clipboard.

To save picture as a file.

Click the [💾] button (the button will stay depressed), then click the [Take Picture] button.   The save as dialog box will then appear allowing you to enter a name for your new picture.

To copy the picture to the Windows clipboard.

Click the [📋] button (the button will stay depressed), then click the [Take Picture] button.   The picture will then be copied to the Windows clipboard.   You can now paste that image into any application that will accept clipboard input.

Troubleshooting

Getting the same frame over and over.

If your recorded movie consists of the same frames recorded over and over then you should either increase the amount of available light, increase the brightness, or decrease the frame rate.   This is caused when it takes longer for the system to produce the picture than there is time to record the picture.

Using the Brightness Slider

The brightness slider is used to control the lightness or darkness of the picture.
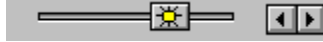
Dragging the thumb button to the right will increase the brightness whereas dragging it to the left will decrease it.   Please note that increasing or decreasing the brightness is accomplished by varying the exposure.   This means that if you have to set the brightness very high to get a bright enough picture then the picture will be **very** sensitive to movement. A general rule of thumb would be: the higher the brightness, the longer the QuickCam takes to generates an acceptable picture.

The slider can also be adjusted by clicking the   buttons.   Each click will increase or decrease the brightness by one level.

Note: If you try to adjust the brightness slider while auto-brightness is turned on, the slider will return back to it's original position.

What to do if your frame rate seems too slow

The QuickCam sends images to your computer through the parallel port (LPT). The type of parallel port you have can determine the speed of your frame rate.

There are basically two types of parallel ports, bidirectional and unidirectional.

Bidirectional Parallel Port (EPP or Extended)
Most parallel ports that come with newer Pus are bidirectional. They can also be called EPP (Extended Parallel Port) by some PC venders. A bidirectional parallel port can receive data as fast as it can send data.   This allows the QuickCam to send roughly twice as much data through the parallel port.   This enables to QuickCam to achieve a much higher frame rate. There can also be another kind of parallel port and it is called Enhanced Capabilities Port (ECP).   For our purposes it is essentially the same as a bidirectional parallel port.

Note: many of these bidirectional ports are factory set as unidirectional.   If you believe that this to be true in your case please check your computer's documentation to see if it indeed has a bidirectional parallel port.   If it does then contact the vendor from which you purchased your computer. They will help you check your computer to see if it is setup correctly.   Under no circumstances will Connectix technical support help you with this problem as our support personal can not possibly be familiar with your particular equipment.   In addition, we can not recommend you do this on your own.   Unless you are **very** familiar with bios setup programs it is very easy to disable your computer.

Unidirectional Parallel Port (Compatible)
This is the original design found in most older computers.   This style port is also called a Compatible parallel port.   This port is designed to send data to the printer, this means it can not receive the large amounts of data from the QuickCam very efficiently. If the QuickCam is connected to this type of parallel port, the frame rate is tends to be much slower than it would be if connected to a bidirectional parallel port.

If you find you have one of these slower parallel ports you may want to ask your PC vendor to upgrade it to one of the newer bidirectional models.
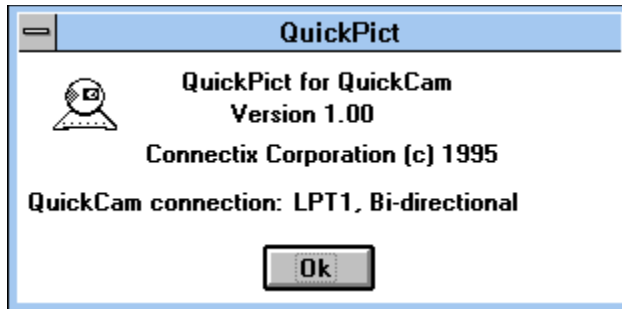
How do I know what type of parallel port I have?

What type of parallel (LPT) port do I have?
There are two types of parallel (LPT) ports, bidirectional and unidirectional.

A QuickCam connected to a bidirectional port will get a higher frame rate, so it' is important to know what type of port you have.

In the QuickPict software, select **About...** under the **Help** menu item.

In the above example, the QuickCam is connected to LPT, which is a bidirectional parallel port.

exposure

Exposure is the length of time a shutter on a camera is open to allow the picture to be captured. The longer a shutter is open the more likely a moving object is to appear blurred.

pixels
A pixel is a 'dot' on the screen.   Picture size is expressed in how many pixels high by how many pixels wide that image is.