

InterView™

For Mac OS X

Capture it... play it... then share it on any computer!



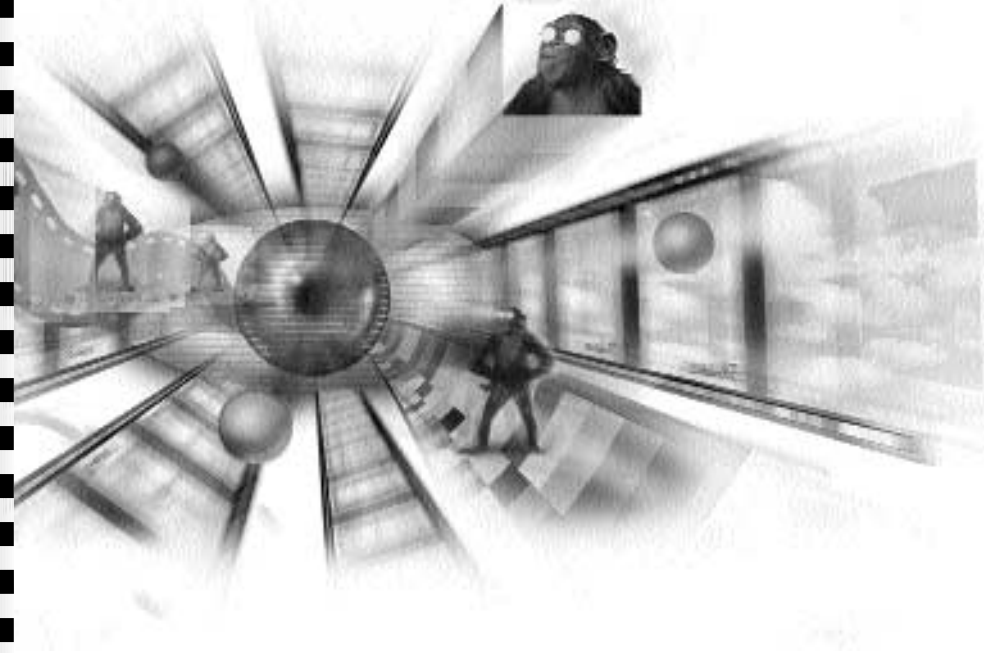
USA: One Meca Way, Norcross, GA 30093, USA, Tel:+1 770-564-5682, info@xlr8.com

ML_IntrVw_FMOSX_03252002

InterView™

For Mac OS X

*Capture it... play it...
then share it on any computer!*



XLR8 *Installation and User Manual*

Introduction

InterView For Mac OS X allows you to use the XLR8 InterView device to capture video and take screen shots under Mac OS X. Video can be captured at 352 x 240 at 29.97 frames per second for NTSC video sources, and 352 x 288 at 25 frames per second for PAL/SECAM sources.

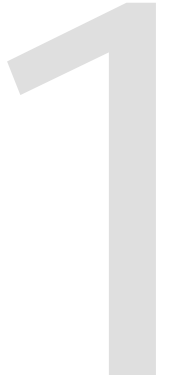
Still image capture doubles the horizontal resolution to 704 and uses interpolation to double the vertical resolution to 480 (NTSC) or 576 (PAL).

InterView movies are saved as QuickTime movie files that can be played back on a machine on which InterView is installed, or exported to QuickTime formats such as Sorenson or Photo JPEG, for playback on any machine with QuickTime installed.

InterView movies may also be saved as DV streams, allowing them to be imported into Apple's free iMovie multimedia video editing package.

InterView supports NTSC, PAL or SECAM standard video sources. Generally speaking, NTSC is used in North America, Japan, Central America and Chile. SECAM is used in France, Eastern Europe and central and western Africa. PAL is used almost everywhere else. Standard selection is automatic, so just plugging a video source into the InterView device will determine the correct format to use.

Setting up InterView for Mac OS X



This guide is designed to help you get your InterView device running under Mac OS X.

The InterView 2.1 software for Mac OS X contains both the InterView drivers and InterView Capture, a user-friendly simple capture application for watching live TV or creating video clips from your video camera.

This Chapter will instruct you on:

- Installing the InterView software under Mac OS X

A. Installing the InterView Software

- 1. Update your Mac OS X Installation.**

While the XLR8 InterView software for Mac OS X will work under Mac OS X version 10.1.2, best performance is achieved with an up-to-date installation. You can check for the latest updates by running Software Update, found in Apple Menu->System Preferences.

- 2. Insert your InterView Installation CD-ROM into your system.**

The CD-ROM, called "InterView 2.0 for Mac OS X", should mount on your desktop. Double-click it to show its contents.

- 3. Double-Click the file titled "InterView ReadMe".**

Any last-minute changes, installation instructions, and additional troubleshooting information can be found in this file.

- 4. Double-Click the "InterView for Mac OS X" installer application.**

You will be guided through the installation process. When finished, quit the installer. No restart is required after installation.



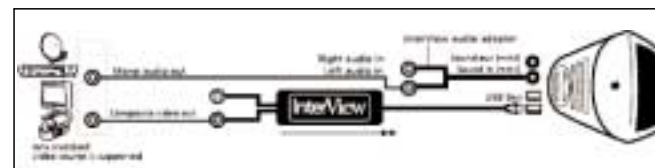
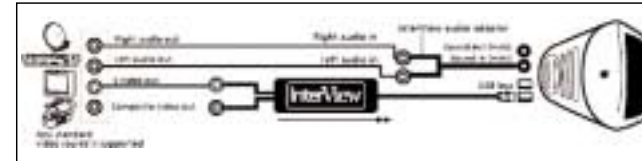
B. Connecting the Audio/Video Devices

1. Connect InterView's USB connector to your Mac.
Note: InterView requires more USB power than a USB keyboard provides, so it needs to be connected either directly to a port on your system or into a powered USB hub (one that uses an AC Adapter for additional power.)



2. Connect a video source to one of InterView's video input sockets. You need to choose between using the standard RCA composite connector or the S-Video connector.

The black connector is for S-Video in for InterView



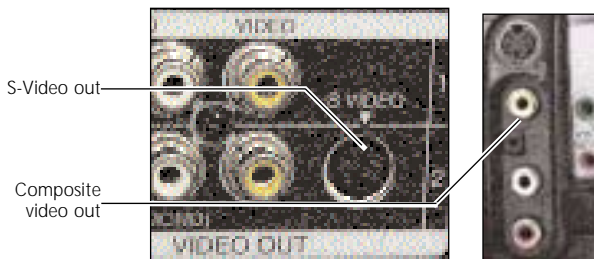
The yellow connector is the composite video in for InterView



- Using the video extension cable that came with your video device, connect either the composite RCA (yellow) connector or the S-video (black) connector



- Plug the opposite end of the A/V cable into the video out port of your video source. This is often hidden on most cameras, so refer to your device's user manual if necessary.



3. Connect InterView's audio adapter to your Mac.

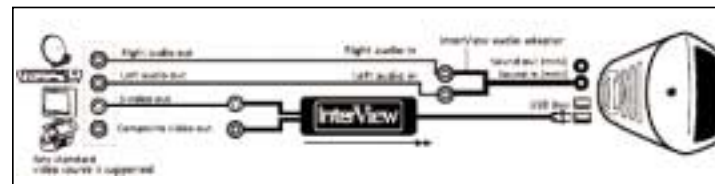


Audio connections on Blue/White G-3

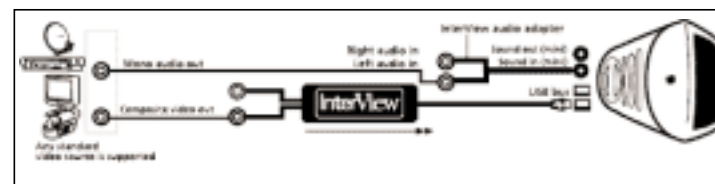


Audio Connections on the iMac

- Connect the audio source of your camcorder, VCR or tuner to the InterView audio adapter using the A/V cable that came with your video equipment.
 - Using the audio extension cable (often the same cable as the A/V or video extension cable) that came with your video device, connect the audio plugs to the plugs on InterView's audio adapter.



For stereo sound: plug InterView's audio adapter's right (red) RCA connector into the right (red) RCA connector on your audio extension cable. Plug InterView's left (white) connector into the left (white or black) connector on your audio extension cable.



For mono sound: plug InterView's audio adapter's left (white) RCA connector into the mono (white or black) connector on your audio extension cable. If, during playback of a captured video clip, you hear a static-like sound or "chirping", try connecting your mono RCA connector into the red connector on the InterView audio adapter and capture your clip again.

Using InterView in Mac OS X

2

In order to capture your video clips and images, InterView must digitize them in real time from your video source. Once in a digital format, the video can be modified, transformed, and edited, then exported as a QuickTime movie to be shared with others.

InterView 2.1 for Mac OS X fully supports QuickTime and its cross-platform capabilities.

This chapter will familiarize you with the InterView Capture application.

Using InterView Capture

Double-click InterView Capture. If you have attached an InterView device and video source, the window will contain the video preview from the device.

Instead of video the window may contain one of a number of solid colors. The two most common colors you might see are: red -no InterView device was detected, green: no video source is plugged in and playing. If you see any other color, refer to the trouble-shooting section for details. Note that some VCRs output a bright blue screen when not playing. This should not be confused with a "problem" screen. Check the tape, and hit the play button to make sure the VCR is playing.



Once video is available, various adjustments may need to be made before capturing it. All adjustments are made using options in the "Capture" menu.



Capture Menu Options

The Video Settings dialog has 4 panels that can be selected from the popup menu on the top-right. Generally speaking, the only adjustment that will have to be made is to the key frame rate setting (described below). All other settings will usually remain the same.

Compression Panel:



Compression Options

Compressor Menu:

Choose the QuickTime format of the captured file here.

Warning: for maximum frame rate, always choose "USBvision". Other formats will result in time-consuming on-the-fly conversions from the InterView format and the selected format as the captured movie is saved. This will dramatically reduce the frame rate of your captured movie.

Depth menu:

"Color" is the only option available here. The InterView device always reproduces the best color depth that it can, based on the video source.

Quality:

One of 5 different settings are available here. If you find that you are unable to capture video at the maximum frame rate, it may be necessary to reduce the quality setting in order to boost the frame rate. The setting in this menu affects the compression rate of the incoming video frames. The lower the quality setting, the higher the compression rate. Lower quality results in smaller file sizes, "noisier" video and higher frame rates. Higher quality results in bigger file sizes, less "noisy" video and lower frame rates. It should be possible to capture full or almost-full frame rates using the "medium" setting on all but the slowest machines (< 300 MHz G3).

Frames per second:

Leave this blank to capture the maximum frame rate possible for your video standard.

Webcam operators and video-conferencers may find it useful to lower the frame rate to reduce the data bandwidth required. Anyone posting finished clips to the web may also wish to experiment with lower frame rates to reduce the size of the files involved.

Key frame rate:

It is critically important to set this value before capturing video. Full frame rates cannot be achieved if this is left blank, even at the lowest quality settings. The recommended value is 15 which will create one "key" frame every 16 frames. Key frames contain enough information to display an entire frame. Non-key frames, or inter-frames, only contain the differences between a given frame and the previous frame. Non-key frames are much smaller than key-frames, thus reducing the overall data size significantly.

Webcam operators and web-conferencers may wish to leave this field blank. Some webcam software handle non-key frames very poorly.

Limit data rate:

This setting is not used and should remain blank.

Image Panel:

The sliders in here control various video parameters including hue, saturation, brightness and contrast. Note that Sharpness, black level and white level are not supported by the InterView device.

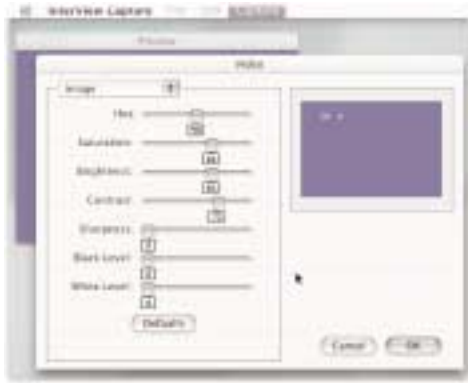


Image Panel Options

Source Panel:

This panel allows you to choose which Digitizer, Video Input, and Format you would like to use for your captured video.



Source Panel Options

Digitizer Menu:

This menu lets you select which digitizer to use. If InterView is not the only digitizer available in your system you may select another digitizer here. If you have more than one digitizer in your system, some applications may prefer those over InterView. Use this menu to switch to InterView. The InterView Capture application will allow you to digitize from any available video capture device, not just InterView. It will however, select the InterView device by default.

Input Menu:

This menu lets you select which input to digitize from: S-Video or RCA Composite. The InterView software will auto-select the input if there is only one video device attached. However, if you have active devices attached to both the S-Video connector and the RCA Composite connector, it will be necessary to use this menu to choose between your devices.

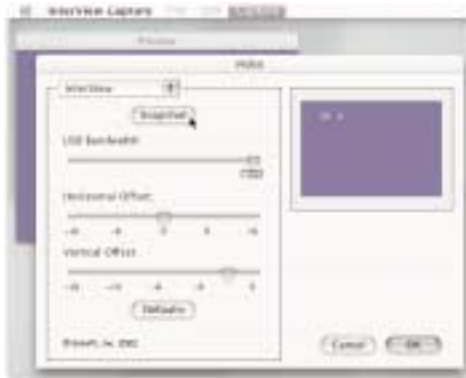
Format Menu:

This menu lets you choose between PAL, SECAM or NTSC video. InterView chooses the standard automatically based on your video source, and you should never need to use this menu. However, when actively switching between the standards, e.g. when switching between both PAL and NTSC video sources, QuickTime may become confused about the video frame size. To update QuickTime's information, open this panel and click the "OK" button.

Filter:

These options are not available, and should remain greyed out.

InterView Panel:



InterView Panel Options

Snapshot:

Click this button to take a 704 x 480 (NTSC) or 704 x 576 (PAL/SECAM) still snapshot of the video stream. Note that the vertical resolution of the image is interpolated. It is a good idea to pause the video source if possible since it can be difficult to time when the actual frame is captured.

USB Bandwidth:

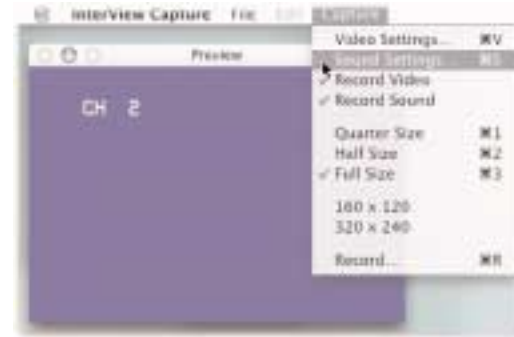
Use this slider to reduce the USB bandwidth consumed by the InterView device during preview and video capture. This may be necessary in order to use another USB device that requires "isochronous" USB bandwidth that is plugged in to the same computer port as InterView. If the device is plugged in to a different port it should not be necessary to lower InterView's bandwidth. Lowering the bandwidth available to InterView will lower the video frame rate possible during video capture.

Horizontal Offset, Vertical Offset:

Use these sliders (or the arrow keys) to make adjustments to the horizontal and vertical placement of the video frame. The preview to the right of the sliders will update to show how far the image has moved.

Sound Settings:

Open the Sound Settings by selecting "Sound Settings" under the "Capture" menu.



Compressor menu:

Choose the QuickTime format for the captured sound here. Choosing "None" will result in the best sound quality and will put the least strain on the CPU. If data size is critical you may wish to experiment with some of the other compressors.



Sound Compressor Options

Sample Panel:

Sample Rate, Size, and Use:

Choose 44.1 kHz, 16 bits and Stereo for general use. If data size is critical, lower quality settings can be used. The above settings will give you CD-quality audio under most circumstances.



Sound Sample Options

Source Panel:



Source Panel Options

Device menu:

Choose the device from which sound is to be captured.

Input menu:

Choose the input associated with a specific device from which sound is to be captured.

In addition to the panels described above, the following sound settings are always available on the right hand side of the Sound Settings dialog:

Speaker menu:

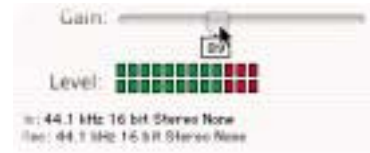
Controls when sound from the video source is played through your system's speaker. The recommended choice is "Off While Recording". Sound will still be captured during recording, it just won't be played during capture in order to reduce the strain on the CPU.

Volume:

Controls the speaker volume any time sound is being played through your system's speaker.

Gain:

It is a good idea to check this setting before capturing with audio. It should be set so that the red bars on the meter infrequently light up. Setting the Gain value too high will result in distorted audio.



Gain Level set too high. Audio distortion and clipping will occur.

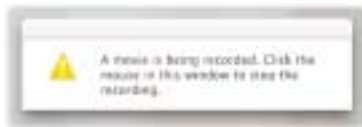


Gain Level set to optimum value. Well balanced audio with little or no distortion should be captured.

Recording Your Movies



Once all the Video and Sound settings have been selected, select "Record," under the "Capture" menu to record a QuickTime movie. A dialog will be presented asking where you would like the clip to be saved. The movie will then be captured until the mouse button is clicked on the capture window, or the hard drive becomes full.



Note: A common problem when attempting to replace an existing movie occurs when the movie to be replaced is selected in the Finder, specifically in column view. The Finder displays a preview of the selected movie and marks the file as "in use". No other application can delete or replace the file until the Finder is no longer using it. Thus, "InterView Capture" will be unable to replace a file until it is physically deselected in the Finder. This issue does not affect either icon or list viewed Finder windows.

The files captured by InterView Capture can be imported into any QuickTime savvy video-editing package. The only exception to this is iMovie. Special steps are required to use an InterView Capture movie in iMovie. For step-by-step instructions, see the "Importing InterView Movies into iMovie" section of this guide.

Making Portable QuickTime Movies

The files captured by InterView Capture are saved in a QuickTime movie format. However, the files are decoded using a proprietary decoder that is only installed with the InterView for Mac OS X software. People that do not have the InterView decoder will not be able to play back your movies unless you recompress them. Also, the decoder can perform slower on slower machines. In this circumstance, playback will not be 30 frames per second, even if the movie was recorded at 30 frames per second.

To allow your movies to play back at the frame rate at which they were captured on all machines, including Windows machines, QuickTime Player must be used to "Export" the movie to a portable format. To export movies using QuickTime Player, QuickTime Pro is required. InterView 2.0 (Retail box) customers are provided with a QuickTime Pro registration key. Refer to your InterView documentation for instructions on how to upgrade to QuickTime Pro if you have not already done so.

To export an InterView Capture movie, open it in the application "QuickTime Player" which can be found in the Mac OS X Applications folder. Select "Export..." from the "File" menu. Choose a location for the exported movie to be saved, and select "Movie to QuickTime Movie" from the Export pop-up menu. Click the "Options" button. In the Video section click the "Settings" button. Select a compressor to use from the "Compressor" menu. All the compressors in this list are supported by recent versions of QuickTime. However, the highest-quality choices are going to be "Sorenson Video" or "Photo - JPEG". These produce very high picture quality and very small file sizes.

There are many other settings available when exporting an InterView Capture movie, however the compressor choice is the most important. Once the compressor has been selected, click OK, and then click the "Save" button.

If you do not have QuickTime Pro, and you wish to view InterView movies on a different platform, it is possible to copy the decompressor to another machine. The file "USBvision.component" can be copied to /Library/QuickTime/ under Mac OS X or to /System Folder/Extensions under Mac OS 9 to enable playback of InterView Capture movies on another machine.

Importing InterView Movies into iMovie

iMovie does not support standard QuickTime file formats for standard import. In order to import any QuickTime movie (not just InterView Capture files), it is necessary to use QuickTime Pro to export the movie as a "QuickTime DV Stream" -the same format produced by iMovie when capturing from FireWire DV cameras.

Open the InterView Capture movie to be converted in QuickTime Player. Choose a location for the exported movie to be saved to, and select "Movie to DV Stream" from the Export pop-up menu. Click the "Save" button. The movie will be expanded to full screen and can be imported using "Import File..." in iMovie's File menu, or drop the converted movie into an iMovie project "Media" folder.

Note: *This conversion can take a very long time to complete and could require a substantial amount of hard disk space.*

Note: iMovie requires a fairly fast system for good performance. It may be necessary to use a different video editing package such as Strata VideoShop under Mac OS 9.x for better performance. InterView Capture movies can also be imported directly into QuickTime-savvy applications, such as VideoShop or Premiere, running in the Classic environment or under Mac OS 9.x.

Troubleshooting

The InterView Capture window shows a solid color instead of video

Interpret the color as follows:

Red: no InterView

- make sure an InterView device is plugged in.

Yellow: low-power

- InterView needs a USB powered port in order to operate.

Green: no video

- plug a video source into the InterView and make sure it is playing.

Blue: firmware update required

- InterView requires a firmware update to use OS X.

Downloading the software alone is insufficient. The firmware can be purchased through XLR8 at www.xlr8.com.

Purple: USB state corrupted

- this occurs when the InterView device is unplugged while a capture application is open. It is the result of a bug in Mac OS X. See the trouble-shooting entry "Unplugging the InterView device freezes the capture application!" for more information.

Note that some VCRs output a bright blue screen when not playing. Do not confuse this screen with a "problem" screen. Check the tape, and hit the play button to make sure the VCR is playing.

I can't capture at 30 frames per second (25 fps for PAL/SECAM)

Even the slowest G3 CPUs can capture near the maximum frames per second. This is probably a settings issue. The most important thing to remember is to set the key frame rate to 15 in the Video Settings dialog in the "Compression" panel. You can also try reducing the quality of the captured data, quitting unnecessary applications, running the monitor in "millions of colors", disabling the sound capture, reducing the captured size to 320 x 240, etc. Also be sure that the selected compressor is "USBvision" in the Video Settings dialog in the "Compression" panel.

Captured sound is very poor quality

Check the gain setting in the Sound Settings dialog. It should be set to 100 or less.

Video playback is jerky

The InterView decompressor requires a powerful processor for optimal performance. If there is not enough CPU power available, and a frame is dropped, then all frames will be dropped until the next key-frame arrives. If the key-frame rate is set to 15 this means that video will appear to stop and start at half second intervals in movies recorded at 30 frames per second. Although the decompressor is limited by the CPU, there are things that can be done to improve its performance. The most important thing is to quit unnecessary applications. In particular "InterView Capture" which is extremely CPU intensive, even in the background. If you have QuickTime Pro you can export the video to an alternative format for faster playback performance.

Taking a snapshot slightly darkens or lightens the video

Unfortunately the video decoder state can change in a non-recoverable way when a snapshot is taken. The only way to restore the video to its original state is to quit the capture application and restart it. This resets the decoder to its original state. Consider taking snapshots independently of capturing video, i.e. don't mix the two actions unless small variations in brightness do not matter. This issue remains under investigation and may only affect older InterView devices.

Unplugging the InterView device freezes the capture application

Additionally, InterView will no longer work and the preview window will be filled with a solid purple color.

Do not unplug the InterView device while it is in use by any digitizing application. It is perfectly safe to unplug the device at any other time. If you do accidentally encounter this situation, force-quit the application using command-option-escape and then restart the machine. If the screen does not go black during restart, restart the machine one more time.

Can I capture video in Classic?

No. You must reboot into OS 9 and use the software that came with InterView to capture in Classic

Direct questions concerning proper installation and operation of the XLR8 InterView to:
XLR8

Tel: +1 770 564 5682

Technical Support E-mail Address: support@xlr8.com

Web Address: www.xlr8.com