

Spigot™ AV Read Me

These notes contain information about the **Spigot AV 1.1** software for **SpigotPro™ AV** and **SpigotPower™ AV** that was not available when the manual included with your card was printed. Please read the manuals and these notes before you start to work with your **SpigotPower AV** or **SpigotPro AV**. In this document, all mentions of **Spigot AV** are referring to both **SpigotPro AV** and **SpigotPower AV** products.

This version of the software is recommended for use with the **Quadra™ 840AV**, and the **Quadra and Centris™ 660AV** only. No other AV Macintosh computers are supported by version 1.1 of the Spigot AV software. Use of this software on unsupported AV Macintosh® computers is at your own risk.

The Spigot AV 1.1 software requires QuickTime 2.0 and the Apple Multimedia Tuner 2.0.1. These are included with the Spigot AV software disks.

We recommend that users of System 7.5 install the System 7.5 Update 1.0. We recommend that users of System 7.1.1 (which is shipped on the Quadra 840AV and the Quadra and Centris 660AV) install System Update 3.0. Both updates contain AV enhancements and corrections for Quadra and Centris AV computers.

Capturing Video

Dropping Frames

It is important to set your data rate to a throughput supported by your scratch disk. If the data rate is set too high, your captured clips will show dropped frames, torn or discolored frames, and audio stuttering on playback. To correct this, lower your quality setting or data rate until a captured clip plays smoothly.

The following items will also reduce the likelihood of dropping frames:

1. Turn off EtherTalk, by switching to LocalTalk in the Network control panel.
2. Turn off AppleTalk in the Chooser.
3. When using System 7.5, turn off the Menubar clock in the Date & Time control panel
4. Removing hierarchical file menu extensions, such as Now Menus and Apple Menu Options
5. Removing any extensions that are not necessary for capturing and playing back video.

Cropping

Most video applications let you crop video as you capture it. If you crop video on an AV Macintosh with a Spigot AV product installed, however, the AV Macintosh computer will process your capture through the built-in video digitizer, rather than through the Spigot AV software. Since the Spigot AV software enhances the video capture capability of the built-in video digitizer in an AV Macintosh computer, your frame rate will be noticeably lower when the built-in digitizer is used.

Capture Sizes

Spigot AV lets you capture video at full- or quarter-screen NTSC (640 x 480 and 320 x 240) and PAL (768 x 576 and 384 x 288) sizes. If you select an unsupported size, your AV Macintosh

computer will process your capture through the built-in video digitizer, rather than through Spigot AV, and your frame rate will be noticeably lower.

Capturing to RAM

You can capture video to your computer's RAM, then save it to your hard disk for permanent storage. While this may let you capture video at the fastest possible frame rate for your system, your video will play back unevenly (stutter), because the speed of your hard disk drive is slower than the capture speed to RAM. For this reason, capturing to RAM is not recommended.

Capturing Video at Less Than 30 fps NTSC or 25 fps PAL

The Spigot AV software only supports full-motion capture of PAL and NTSC clips; lower frame rates are not supported. It is, however, possible to edit a JPEG movie and save it at a lower frame rate. Interlaced JPEG clips must remain at full-motion settings of 30 fps NTSC or 25 fps PAL.

Sharpness Setting

When properly set, the Sharpness setting can prevent Spigot AV clips from looking grainy. If your video appears grainy, try lowering the Sharpness setting in the Image panel of the Video Settings dialog box.

NuBus SCSI Acceleration Cards

The Spigot AV product line does not make optimal use of NuBus SCSI acceleration cards. The Spigot AV line is not compatible with these cards. When using a drive or array from such a card, capture and playback will drop frames.

Capture and Single-Field Video

Spigot AV cannot capture still images when your video source does not send both fields of interlaced video (video games and paused extended-play [CLV] laserdiscs, for example). Spigot AV can, however, capture video clips from these sources. To produce a still image from a single-field source, capture a clip that contains the image you want, then save the frame as a PICT.

Playing Back Video

If you play back a Spigot AV movie through your QuickTime™ application - instead of through the Spigot AV Player application or Print to Spigot AV export module - you may see a green flash at the start of the movie. To work around this flash, follow these steps to add a leader to the beginning of your movie (the leader masks the flash on your videotapes):

1. Open a movie capture window in your video capture application. Do not play video from the video source attached to your system.
2. Click the Record button to capture several seconds of black, blank video.
3. Save the black video as an Interlaced JPEG movie.
4. Use your video editing application to place the black video at the start of your final movie.
5. Print your movie to videotape.
6. When you play your videotape, start the tape a second or two into the leader.

If you have MacsBug installed on a Quadra or Centris AV and set to display on your Built-in Video screen, you will see a flash at the start of a movie played in the Spigot AV Player and export module. Removing MacsBug or setting it to display on a second monitor will correct this.

Resizing a quarter-screen clip to full-screen size is not supported. This is because it sets the Spigot AV software into Off-line mode, which is not optimal for playback.

Due to a bug in the AV architecture of the Quadra and Centris AV Macs, a black border can be seen in clips displayed on the AV video outputs. We have taken precautions to prevent this from happening with the SpigotPro AV's video outputs.

Never drag a floating window or palette on top of a video clip window. This will interrupt the Spigot AV software, and cause your clip to play back very slowly. This is because it sets the Spigot AV software into Off-line mode, which is not optimal for playback.

When a dialog box or floating palette is drawn over a SPAV clip and then closed, the clip image is not always refreshed. Playing the clip will refresh it.

When you keep more than one clip open, only the active window displays video. The other clip windows can appear white.

To use Composite Movies most effectively with your Spigot AV product, do not save a Composite clip containing different Compression Quality or Data Rate settings or CODECs. The Spigot AV software does not support this.

To create Composite movies that will play back on Spigot AV, do not use clips with different Compression Quality or Data Rate settings or CODECs. Composite movies created with these different types of clips will experience flashes and hitches between each clip and transition.

Video Application Tips

You will need a movie-editing application to assemble segments of captured video (called clips) into movies, and to edit or add special effects to your movies. The following tips will help you use several QuickTime-compatible applications with your Spigot AV product. Please refer to the manuals provided with the applications for complete instructions on their use.

Preview Icons in the Compression Dialog Box

The Spigot AV only supports full-screen and quarter-screen PAL and NTSC window sizes. The Compression dialog box in most QuickTime applications contains a Preview Icon that is smaller than the sizes supported by the Spigot AV software. The result is that the Preview Icon can be visually inaccurate. This is purely cosmetic.

Window Sizes for Computer Generated Graphics and Animation

When creating a computer generated graphic or animation for use in a Spigot AV clip, make sure that the window size is supported. If it is not a full-screen or half-screen PAL or NTSC clip, it will cause your clip to play back very slowly. This is because it sets the Spigot AV software into off-line mode, which is not optimal for playback.

QuickFLIX and VideoFusion

After you capture video in VideoFusion or QuickFLIX, make sure you save the captured clip before you add it to a storyboard. This prevents problems that may occur if you drag different size

clips to the same storyboard while you work with SpigotPower AV.

When capturing PAL clips with VideoFusion products, use the Record Window Size menu item in the Record menu, and enter a supported PAL size. The supported sizes are 768x576 and 384x288.

Avid VideoShop

To record a full-screen clip in VideoShop, select Video Settings from the Record menu and enter 640 x 480 for NTSC or 768 x 576 for PAL in the Record At field. Do not use the Video Size pop-up menu, or your RGB display screen may go black. If this happens, click your mouse to restore the screen, then follow the previous instructions.

When multiple clip windows are open, playback performance can be poor. This can also be true when the Record window is open while playing a clip. To correct these problems with playback when multiple clips are open, close the Record window and all the clip windows but the clip you want to play.

Movie Shop

Multimedia developers can use Movie Shop to constrain the data rate of a clip. If you do this, make sure you choose JPEG in the Video Quality Preferences dialog box.

Capturing Audio

Sound Capture Setup

Your AV Macintosh has sound input jacks, so you can connect it to an audio source and capture sound with video. As you play back the captured video, the audio plays back through your Macintosh sound system.

The manuals supplied with your Macintosh describe how to connect various audio sources to your AV Macintosh model. The audio source is often the same piece of equipment as your video source — a VCR or camcorder, for example. To capture sound that was recorded with a segment of videotape, connect an audio cable between the audio out ports on your VCR and the sound input jacks on your AV Macintosh.

The manuals supplied with your video application describe how to select your sound capture, or input, parameters. Set the Gain slider in the Sound dialog box so that red does not appear in the Level indicators. If red does appear in the Level indicators, the sound quality of your video will be compromised.

Other Tips

Spigot AV Card is Not Recognized by the Spigot AV Software

If your card is not recognized by your software, or the CODECs do not appear in the Compression panel of the Video Settings dialog box, try the following:

1. Shut down your Macintosh computer.
2. Remove the Spigot AV card
3. Zap PRAM by holding down the Command, Option, P, and R keys immediately after you press

the Startup button on your keyboard.

4. Shut down your Macintosh computer.

5. Reinstall your card according to the direction in your Spigot AV manual, making sure the card is properly seated.

6. Re-install the Spigot AV software.

If this fails to correct the problem, contact Radius Technical Support.

Video Input is Black and White

Try shorter input cables.

Drive Optimization

Clips will play best from a drive that is optimized. At the very least, make sure the movie files are contiguous by using a disk optimizer utility, such as SpeedDisk or DiskExpress II

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