



ProVideoServer

Manual

Updated Tuesday, January 16, 2017



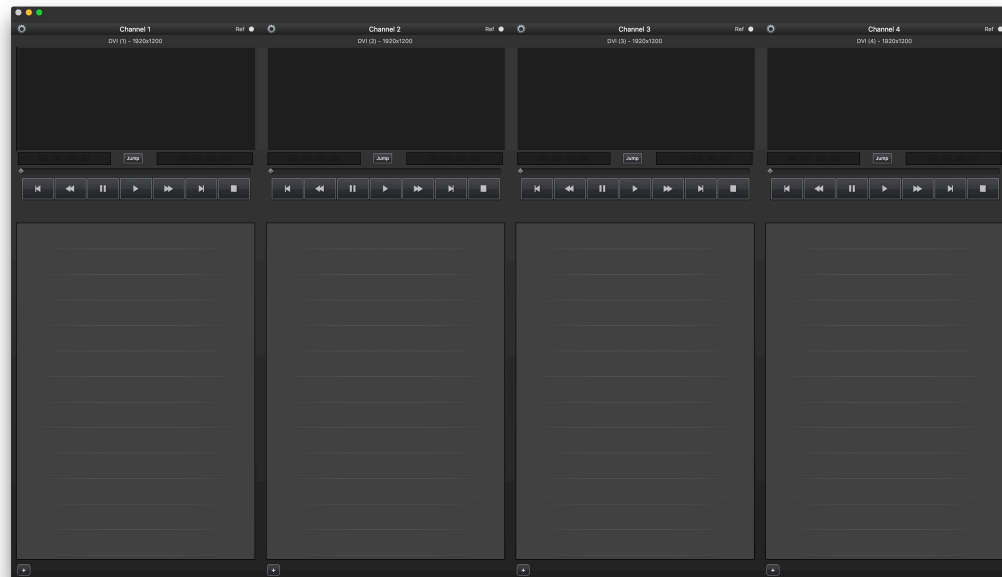
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What is ProVideoServer?

ProVideoServer is a Mac-based video server capable of outputting up to 4 channels of SDI or HD-SDI broadcast video from a single computer, either independently or ganged together. It offers dynamic up/down/cross-conversion, de-interlacing, and independent, or ganged playback. It also offers connections for playback control using industry standard protocols.

Basic Interface

The interface for ProVideoServer is designed to be straightforward and intuitive to operate. When the program is launched, it shows a column for each channel licensed. When running the software in Demo mode, all 4 channels are available for output, but each channel will show a watermark on the output screen making its use ideal for trial use, but unsuitable for production work.



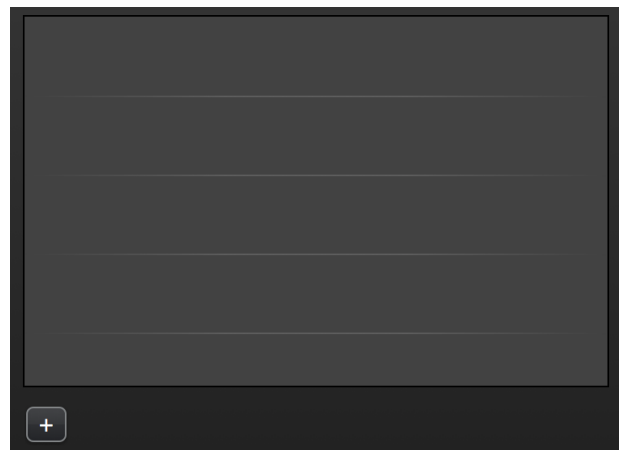
At the top of each channel are the preferences for that channel, the name of the channel (which can be changed by clicking and typing the desired name), and a reference indicator noting if the output will be gen-locked to an external reference signal for the chosen output card.



Below the header channel information is the preview window showing a mirror of what is being output to the output device chosen and audio meters for the source clip (up to 16 channels). The timeline below the preview shows the time elapsed on the left and the time remaining on the right. The timeline itself is scrubbable. Standard video transport controls are below with buttons for rewind to beginning, fast rewind, pause, play, fast forward, wind to end, and stop. The stop button will go to black on the output screen.



The playlist for the channel is below this with a simple drag and drop interface for any media playable by PVS. You can also add clips to the channel playlist by clicking the + button at the bottom and selecting your media through a standard open dialog box. Any media files that are accessible by the system, whether locally or on a remote volume, can be loaded into the channel.



Setting up a channel's output settings

Each channel has settings for its output that are independent of each channel. These can be viewed/changed by clicking on the sprocket in the header of each playback channel. The first selection, device, is where the actual hardware output device desired for the channel is chosen. Each channel must have a unique device selected.

Once the device is chosen, the options for the Mode of output are selectable. Here, the resolution/standard of output is chosen. Note that ProVideoServer will convert any video played within the channel to this chosen format, regardless of the original video's format. Format settings for individual videos can be chosen in that video's inspector.



Audio for each channel can be output through the System's chosen output device (as selected in System Preferences... -> Sound -> Output), or through the chosen device's built in interface. Note that the device itself might have multiple options for audio output (such as embedded SDI or XLR audio breakout cables). These options cannot be selected from within ProVideoServer, but must be chosen in the device's own settings control panel (usually located in System Preferences...).

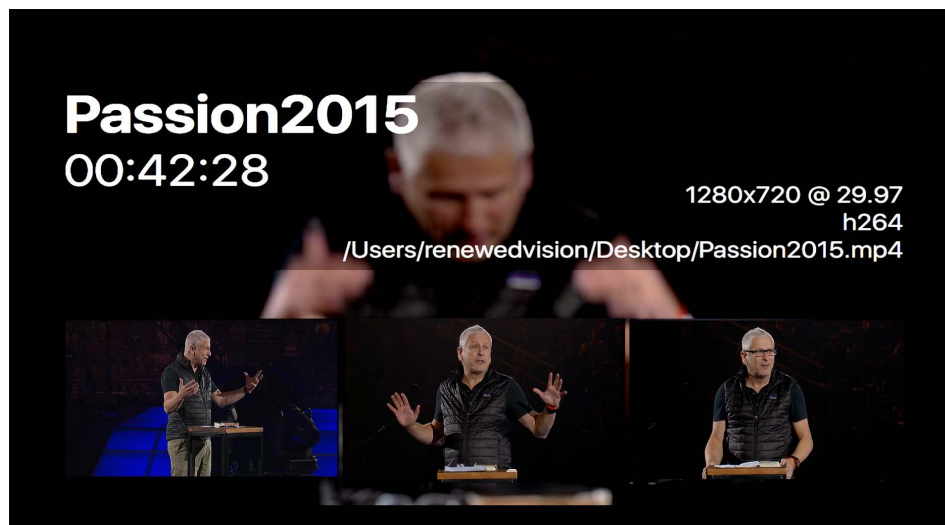
The "Anamorphic" option allows the ability to use 16x9 content in a 4x3 environment without distorting the original video.

The "Link to" option is used when synchronized playback between the selected channel and another channel is desired. If a selection is made here, the video channel will become a slave to the selected linked channel. When a video channel is linked, videos can still be independently selected and controlled for that channel, but when a video is selected in the master, the corresponding offset video is chosen for the slave. In a sense, the slave is independent of the master until the master gives it a specific instruction.

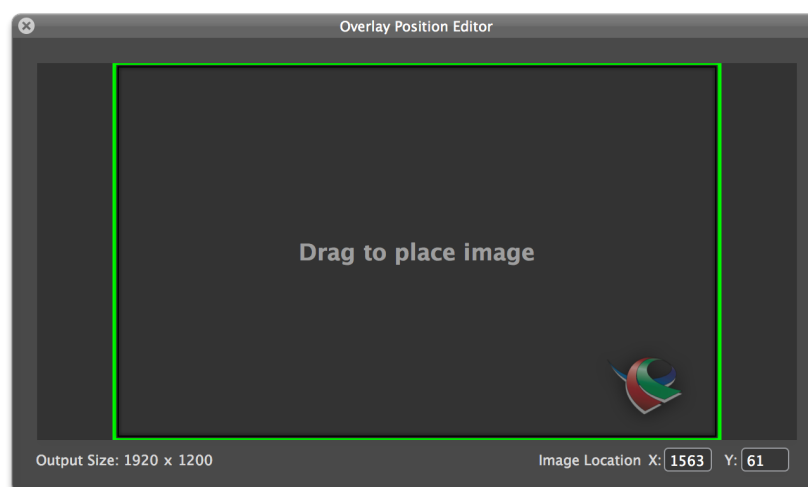
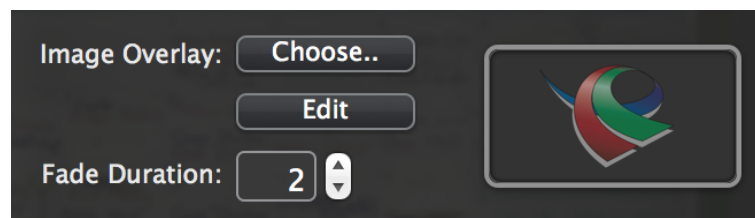
The "Audio Delay" option is used to shift the audio ahead or behind the video to provide accurate lip sync with the video when latency is present. The values can be entered as either negative or positive depending on if the audio is ahead or behind of the video playback.

The "Timecode" option specifies what timecode data is sent to the VANC/VITC output of the channel's device. The options for this are time elapsed or time remaining.

ProVideoServer has the ability to generate a "slate screen" with the meta-data for each video clip automatically, including format, file path, compression, frame rate, duration, and thumbnails. This is useful in a production environment when cueing videos so that the video director can visually confirm that the clip that is loaded is correct.



The "Graphic Overlay" option lets you specify and place a graphic that will appear on top of the playing video. Note that graphics that are placed cannot be resized; their pixel area must reflect the size you wish them to appear on the screen. The Graphic Overlay function supports still images in a JPG or PNG format, and alpha channels are also supported. This graphic will appear over all videos played within the channel.

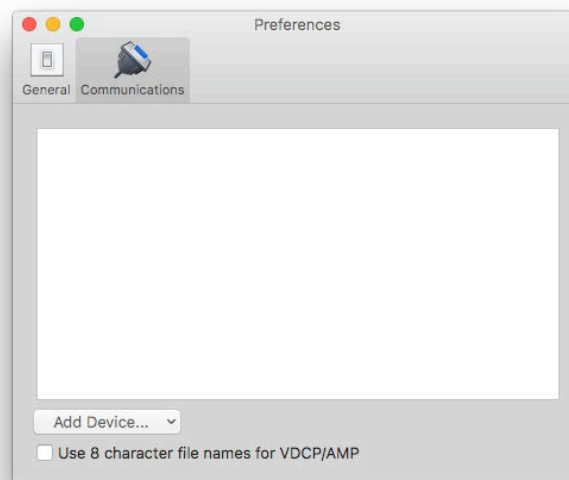


The final option is for a fade duration between videos.

Communications Preferences

The Communications capabilities within ProVideoServer provide connectivity to external devices via network or serial communications according to what the protocol supports. These include AMP, VDCP, Sony BVW, and CITP protocols. All of these are accessed in Preferences.

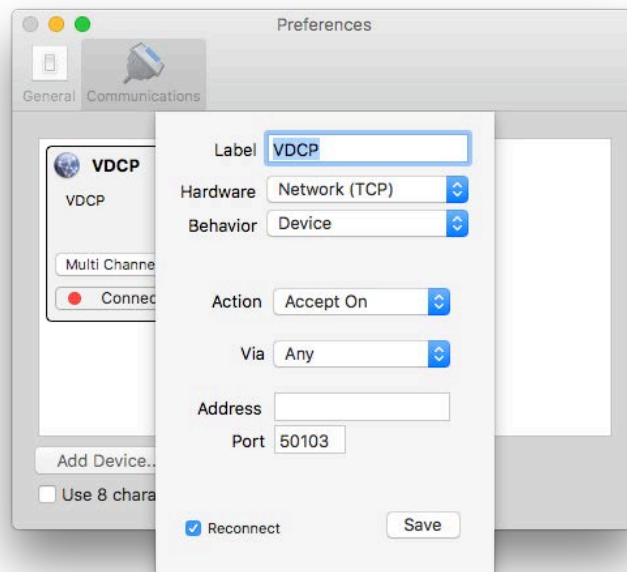
Note: A working knowledge of the protocol you need to use is strongly recommended as each protocol has various options available and they are not covered in great detail in this guide. Due to the variety of configurations for these protocols, we can't offer much support. Protocol specifics should be available in product manuals or from hardware manufacturers.



AMP and VDCP are media server protocols that have more capabilities than Sony BVW such as triggering clips by name. BVW can only control the playback of an already triggered clip.

CITP (Controller Interface Transfer Protocol) is a means by which modern lighting consoles can communicate to ProVideoServer and retrieve thumbnails of the video cues that exist within the product, making it easy for lighting designers to cue specific videos over Artnet.

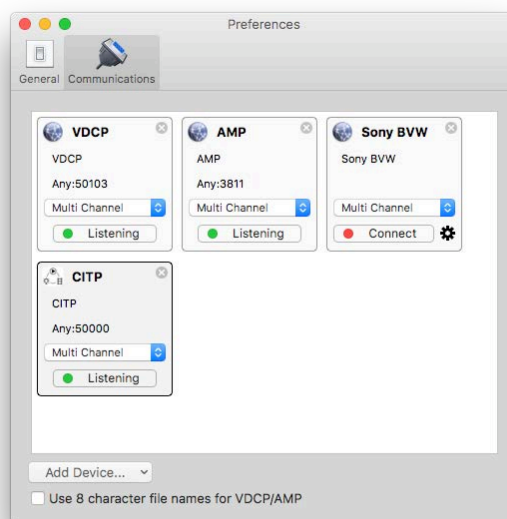
To add any of the available protocols to ProVideoServer, click on the **Add Device** button in the lower left corner and select the protocol from the list. Each protocol has unique configuration settings. We have set each protocol to use the standard configuration as specified by each manufacturer. If your configuration requires different settings you will need to refer to the documentation for the device you are connecting to with ProPresenter. The screenshot below shows VDCP as an example.



After you have added a protocol, you will see a box that shows you the active protocols. You can connect or disconnect any protocol, or remove it, from here. If you need to change the settings for a protocol, click on the gear icon to open the settings menu.

Every video channel of ProVideoServer can be set to receive commands for a specific communication connection, or you can select "Multi-Channel" for the connection if you are using an AMP or VDCP workflow that supports multi-channel capabilities. Choosing a specific video channel in the connection setup overrides any embedded video channel specifications on the incoming traffic and will only send commands to the video channel specified.

You have the option, if desired, to have multiple communication connections of multiple protocols controlling different (or even the same) channels. This could allow two different switchers to control the same (or different) video channels.

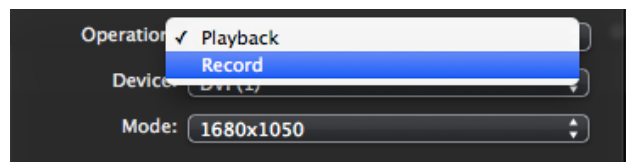


Recording and Time-slip Playback

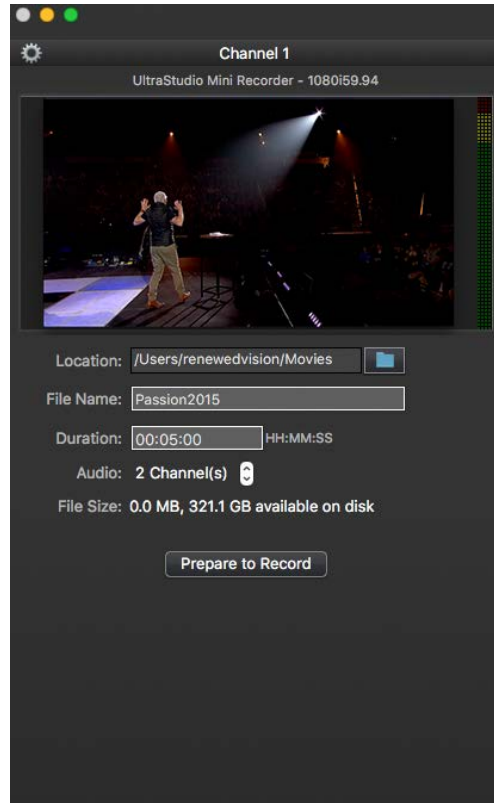
This feature of PVS requires two channels; one for recording and one for playback. Support for a total of four channels is available on a single machine, whether for recording or playback.

To configure a channel for recording, click the gear icon in the top left corner and select “Record” from the Operation menu. Switching from Playback to Record will also change the menu options, as shown in the second image below. Continue selecting the Record settings that you need, and click Done when you’re ready. You can change these settings at any time. Make sure that your Mode matches the video that you are capturing.

The “Mute Preview” option disables the output of audio when the channel mode is set to “Record”. The purpose of this option is to only allow the audio output of PVS to be that of the “Playback” channel, especially when using PVS for time-slip. Otherwise, the audio output of PVS would be a combination of the Record and Playback channels.



Once your channel has been setup, you should begin seeing the video streaming in the viewer if there is a signal available with the settings specified. If you don't see the video, check your settings and verify your signal source is active.

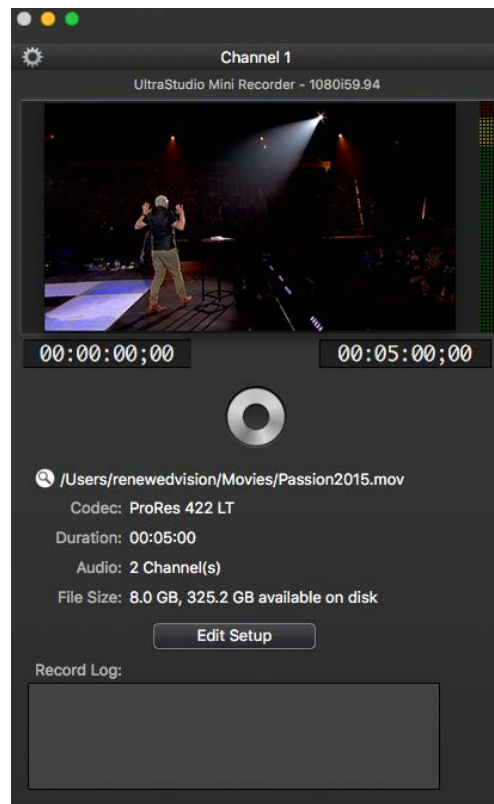


Next, choose the location where you want to save your recording, as well as give the file a name. Multiple recordings with the same name will automatically be appended with an incremented number (ie "Recording 1", "Recording 2", etc.)

You also need to tell PVS how long you expect your video to last. This is for the purposes of time-slipped recording as it creates a video with the time specified, and then fills the video from the beginning with the data being recorded. It is best to enter a larger number than is anticipated in this box. If your recording runs long, the recording will stop when it reaches the time limit. If you run shorter than the time specified, the unused time will be trimmed from the recorded file. NOTE: The Demo version of PVS is limited to 5 minutes of recording.

Click Prepare to Record when ready. This activates the record channel.

After you click on Prepare to Record, you will need to start your recording. Click on the large Record button to do this. If you need to make any changes to your record settings, click on the Edit Setup to return to the preview view of this channel. Files are saved to a QuickTime format video file, so you can play it on any computer or device that supports QuickTime and the codec specified.



The File Size is estimated based on the Record settings you selected and how long you set the file to record for. The Record Log will log activity related to the recording for you to refer to later if needed.

When playing back a time-slipped file, the video will need to be placed into the PVS playback channel. As the file does not exist until after the recording is started, you won't be able to place your file in the playback channel until after the recording has started. An easy way to accomplish this if you plan on doing a lot of time slipped recording is to take advantage of the hot folder function of the playlist. Otherwise, add the recording to the Playback channel just like you would add any other file. Click on the plus button at the bottom of the channel and then browse to where you saved the file in the Record channel. You can also click on the magnifying glass icon next to the file path in the Record channel, and then drag the file into the Playback channel.