V-Station®HD Auxiliary Audio Control

V-Station HD DVRs have the ability to record up to 8 channels of embedded audio along with the video sources via HDMI or HD-SDI. Each video source is capable of carrying 2 channels of audio. If your sources are cameras, then the audio must be fed into the camera's external audio input. In addition, there is provision to record 2 auxiliary channels (Left/Right) of direct input aside from the cameras audio by either using the Line/Mic inputs on the rear of the V-Station HD, or using a USB audio interface connected to one of the USB ports. With the USB audio interface, the appropriate manufacturer's driver must be installed before V-Station HD will recognize it as a viable input source.

The auxiliary control panel is brought up by clicking the **Audio** button, located on the Studio's Record Panel's menu bar at the bottom the panel or on the Record panel top left if using the Field system.
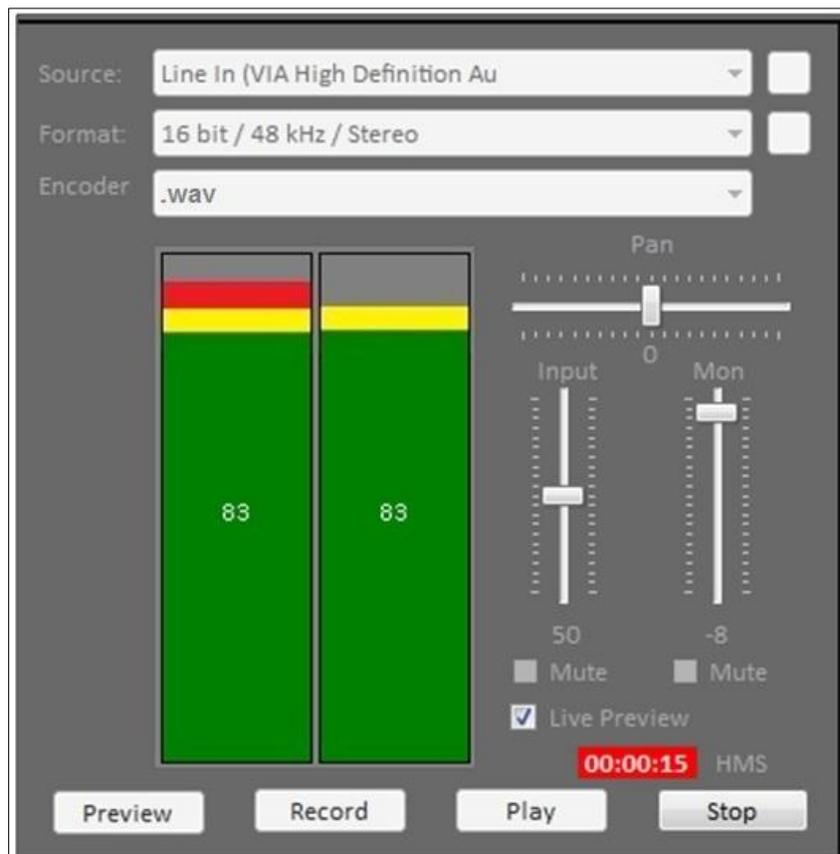
Aux Audio Control Panel

The source of input is first chosen from the Source combo box pull down menu, then the format (bits/rate/channel) are selected next, and finally the encoder to use uncompressed PCM (.wav) or either compressed MPEG Layer 2 (.mp2) or Windows Media Audio (.wma) formats. Once selected the Record or Preview buttons become active. Input levels and output monitor levels can be adjusted using the input and Mon level control, and viewed in the VU meter for Left/Right channels. For best sound recording, e.g., musical events, choose PCM (.wav) which will provide uncompressed PCM wave files. For speech or other non musical events, wma may be used. MPEG Audio 2 is also a good choice for either music or speech (not quite as good as PCM). PCM also is sound editing friendly.

Audio File location and Naming

When recording audio via the Aux Control Panel, the audio files will reside in the project's reel name folder, under the sub-folder name _Audio (e.g., "Beatles Concert\Rehearsal Reel_Audio").

The audio file naming convention is as follows:

"A12_sceneNum_ShotNum[#take].ext" (.ext as specified .wav or .wma)

We use A12 as the abbreviation for "Auxiliary channels 1 and 2" as the prefix of each audio file name.

The current SceneNum and ShotNum correspond to the video clip's numbering, so it is easy to identify which audio clip is associated with a particular scene and shot.

The [#take] appears only if recording again the same reel and scene and shot, and starts with #1 (on the 2nd take).

In fact, you cannot change/add a project or reel when the audio is being recorded, previewed, or playing back. You can, however, do several shots or retakes, while the audio is recording. In this case, the audio file numbering reflects the first scene/shot numbers when the audio recording begins.

Syncing Auxiliary Audio to Video

Synchronizing the audio from the shoot is either done by using the ADR feature of V-Station HD's Multi-View upon making a rough-cut edit, or by exporting the project to an NLE system. In the case of using Multi-View, the user must ensure that the audio recording starts before the video recordings do, otherwise the rough-cut may have no audio start point to sync to.
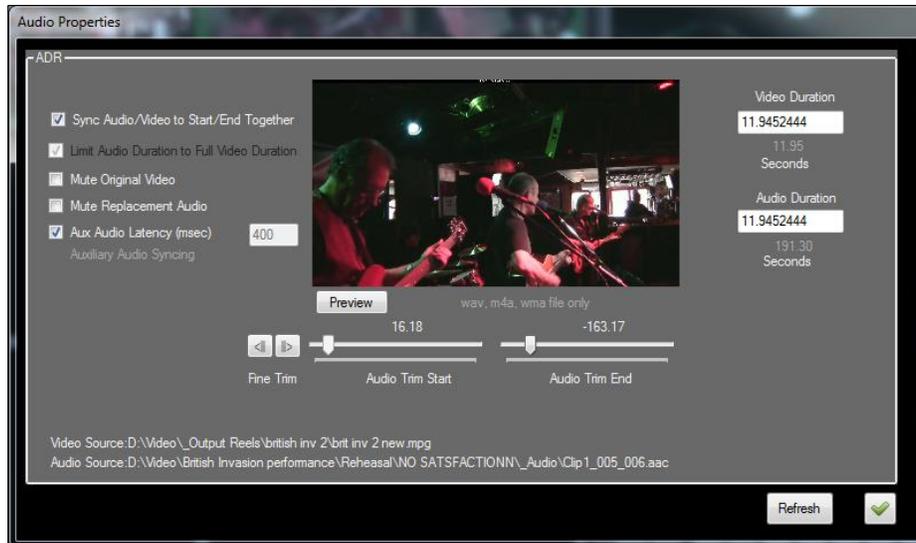
Multi-view ADR will automatically sync the audio to the rough-cut by trimming the audio files start point to match that of the video's start point (when the "Sync Audio/Video to Start/End Together" checkbox is checked), but not the other way around. If the audio recording started later, then the rough-cut start point must be greater than the audio start point in order to do the ADR.

> *Hint: You can, however, do a series of shots in the same scene or re-takes, and still use a continuous audio recording which started on the first shot to sync with the video. That is, one audio file can span over all your video shots, and the ADR will be able to sync the audio from different video shots.*

When using the V-Station HD stereo line-in or mic in port for analog aux audio, the **Aux Audio Latency** checkbox must be checked to ensure that the syncing adjusts for the audio latency. The nominal value is 400msec. If using a USB Audio interface, the latency values will be different. In this case, it will have to be determined by trial and error using the Preview.

> *Hint: If nat embedded audio was recorded with the sources, then with both mute checkboxes unchecked, you can hear both the original mix and auxiliary audio mix together and adjust the latency by the sound. Otherwise, you may use the "lip sync" method to do this by trial and error.*

Please refer to the V-Station HD Studio Users Guide on using the ADR feature when syncing to an external audio source.

<u>If you plan to export the audio to an NLE system:</u>

Export the project first using the Export Project button found in the V-Station HD Project Information panel. This will prompt you to browse for the destination folder. Click Export and wait until the process has been completed.

After the export has completed, import the project using XML import of the NLE system (see the Tech Brief appropriate to your NLE). This will import all your video clips, Output Reels, and sequences. However, it does not currently import the auxiliary audio. This must be done manually as follows.

 a) Locate the _Audio Folder for the Project and Reel directory in the exported project's video folder. For example if the auxiliary audio is recorded in "myProject" and "myReel", then locate the audio folder   in <exported-folder>\Video\myProject\myReel_Audio.

b) Copy the entire _Audio folder to the NLE project folder where the current project media files are located.

c) Import the audio files located in that folder into your current project using media file import.

d) After the audio files have been imported, you can sync the audio file in several ways:

- Trial an error using the natural sound of one of the cameras to sync with the aux recording,
- Using a 3rd party program which will create a time coded wave file with the audio recordings start time embedded base on the file creation time,
- Using the timestamp of the audio recording's file creation date and syncing on this time.

In a future release of V-Station HD, the _Audio files will automatically be included in the XML export and the syncing information will be available to the NLE.