Playing Media Files with Sound (V1.0.1.8 and newer - Personality 2)

Personality 2 (software 1.0.1.8 and above) enables the reading and decoding of media files (containers) with both video and audio streams. Media container files (mov, mp4, mkv, m4v) may be located in any User Folder (imagecue000 to imagecue255). The codec used for the video stream must be H264 for satisfactory playback. The new Playback Mode (Channel 13) provides the ability to PLAY, PAUSE, and PRE-ROLL the media container files. (Note that JPEGs and H264 Raw files are still handled in the original high speed way, which allows true random access busking.) We strongly recommend that media container files be kept separate from User JPEG and H264 files. It is not a requirement, but it will make a difference to users that like to "scroll" through images. The "Wait/Devamp" feature that was introduced in Version 1.0.1.7 also works in conjunction with the new Playback Mode, but differently than with H264 videos. This difference in operation will be detailed below.

<u>Content scaling:</u> The video content of a media container is scaled to fully fit the screen. Scaling maintains the aspect ratio of the media source. Oversize content after scaling is trimmed. We strongly recommend the use of content that matches the target screen resolution.

Playback Mode Controls: (Channel 13)

<u>Default – PLAY:</u> When Channel 13 has a value of 00, ImageCue is in "PLAY" mode when a media container file is selected. This has no effect when selecting JPEG or H264 images. In this mode the file is read and split into the video and audio streams. As this process takes time (can be up to three seconds depending on the content) the newly selected file will not commence playing immediately. It will play as soon as it is sync'd and ready. Audio volume is controlled via Channel 14.

<u>PAUSE</u>: When Channel 13 has a value of 01, if a media file is playing, the video is frozen and audio halts. If an H264 video is playing, it is also frozen. PAUSE has no effect on JPEG files. If PAUSE is selected and a new media file or H264 file is selected, the new media file is loaded and paused on the first frame of the video (with sound sync'd). The loading time for all media files will vary. An H264 file will load and freeze on the first frame immediately. To continue playing a paused video, return the value to 0 (PLAY).

<u>PRE-ROLL:</u> When Channel 13 has a value of 02, the PRE-ROLL feature is selected. This feature allows you to cue up the next media file in the background so that when you select PLAY the media starts immediately. To use this feature, have a JPEG, H264 video, or another media file playing. Set the Playback Mode to PRE-ROLL and select the video you want to cue up in the background. (You can set PRE-ROLL and the new folder/file number simultaneously in a cue.) This should be done allowing enough time for the new media file to fully load in the worst case – we recommend 3 seconds. When PLAY is selected, the new

media will immediately start playback. IT IS ONLY POSSIBLE TO PRE-ROLL ONE MEDIA FILE AT A TIME. Pre-rolling and selecting PAUSE (rather than PLAY) is not recommended as it may result in an audio glitch with some of the exiting audio playing for a few frames.

Wait/Devamp use with Playback Mode (Channel 10): Wait/Devamp was added as a feature in V1.0.1.7 for Personality 4. Its primary use is with theatrical content for seamless exiting from loop videos on cue. Its use has been extended in Personality 2 but the operation is different with container (A/V) files. You can use WAIT/DEVAMP to seamlessly continue from one media file to another. If PRE-ROLL and WAIT/DEVAMP are selected the media is played in WAIT/DEVAMP mode regardless of the Playback Mode. NOTE: THIS FEATURE SUPPORTS ONLY ONE PRE-ROLL OR WAIT/DEVAMP AT A TIME WHEN USED WITH CONTAINER FILES. It cannot be used to sequence multiple media files one after another. To use this feature, start a media file (or H264) and select WAIT/DEVAMP along with the media file you want to play as soon as the currently playing video ends. You need to send these values allowing enough time to pre-roll before the current video reaches the last frame. When the current video reaches the last frame, the next video is automatically started – there is no need to send PLAY. The use of Wait/Devamp can be confusing and should only be used by experienced users.

<u>Using TRANSITION TIME in Personality 2:</u> Video to Video (media files and H264 files) crossfading has been enabled in Personalities 2 and 4. The quality of crossfading is very content specific. Videos with lots of fast movement may slow down during the crossfade transition. When using media files having an audio stream, the audio of the outgoing stream is faded out, but the incoming stream's audio starts at full volume. We recommend using short times (1 to 3 seconds) when doing video to video transitions.