

Production Recoding Rates for NTSC Post Production

Picture, Sound, and Project Type

Michael Phillips

June 17, 2004

Overview

As BWF field recorders are being used more and more in production for both film and video, the user needs to be extra careful as to the sample rate and speed of the recording devices while in the field as well as the version of the Avid editing application being used in post production.

Importing audio files does not offer the usual workarounds associated with analog or digital audio from tape sources when working at different frame rates and the frame rate of the project type used in post.

Only the sample rate determines the playback rate of the audio dependent on the frame rate and sample rate of the Media Composer project type. The audio frame rate and timecode are used to calculate the timecode from the BEXT during the import process.

The table below shows all formats for picture and sound that will not initiate a sample rate conversion nor drift during the importing stage into the Avid Media Composer:

Picture Frame Rate	Audio Frame Rate	Timecode	Sample Rate Record	Sample Rate Stamp	Avid Project Type
23.976	29.97	DROP	48000	48000	23.976p
23.976	29.97	NON DROP	48000	48000	23.976p
23.976	29.97	DROP	47952	48000	24p
23.976	29.97	NON DROP	47952	48000	24p
23.976	29.97	DROP	48000	48000	30i (29.97)
23.976	29.97	NON DROP	48000	48000	30i (29.97)
29.97	29.97	NON DROP	48000	48000	30i (29.97)
29.97	29.97	DROP	48000	48000	30i (29.97)
24*	30	NON DROP	48000	48000	24p
24*	30	DROP	48000	48000	24p
24*	30	NON DROP	48048	48048	23.976p
24*	30	NON DROP	48048	48000	30i
24	25	N/A	48000	48000	24p M2
25	25	N/A	48000	48000	25p
25	25	N/A	48000	48000	25i

* Assumes a 23.976 down convert or film transfer to NTSC or 1080p/23.976