

UNDERSTANDING TODAY'S MEDIA TECHNOLOGIES & QUALITY OPTIONS

DATA SHEET



■ Hard Drives offer the best transfer quality because of their virtually unlimited file size. The DV and h.264 codec (the “encoding” formats) are of much higher quality than DVD formats. They are the preferred choice especially IF editing is going to be done at a later time. They are also the best archival formats to save film/tapes long term. Uncompressed is also available (uncompressed is best but creates very large files, may be hard for your computer to play, and is more costly to transfer). However, no recording codec is a long term guarantee for format stability as the technology WILL ultimately change (about every 10-15 years). Thus, it is recommended to keep informed about the video world in order to stay current on the newest codecs and transfer technologies.

■ DVD offers very good playback quality but does not retain the same amount of picture information as a hard drive transfer. In fact, DVDs are an illusion of quality: the playback images go by so quickly (30 images per second) that the compression flaws may not be seen. **DVDs are standard definition only and not HD.** Video material can also be saved on “M-Discs” which are DVDs made of a stone-like material and used in long-term government archival scenarios. Two quality levels are available: 2 hour mode and the higher quality 1 hour mode (per disc).

■ Blu-ray HD offers excellent quality IF the original materials were recorded with HD specs and with very good recording technology (excellent cameras with superb lenses). Good lighting and a steady hand also adds to increased quality. The picture aspect is usually 1920/1080P or 1440/1080i/p. 720p also will offer better HD resolution than standard definition formats. HDV tape falls into this category. Many internal camera hard drives recorded HD codecs (early versions recorded standard definition) as do cameras that recorded on SD cards. NONE of these formats will yield 2K or 4K results.

■ Can Standard Definition tapes be up-scaled to HD? **VHS, S-VHS, Video8, Hi8, Digital 8, Mini DV and Betamax DO NOT offer High Definition quality** but can be up-scaled for convenient playback on an HD TV. This process takes the SD picture information 720by480 pixels and places it into a 1080by1920 picture frame (with black side bars). It DOES NOT add high definition picture quality to the original recording. It just makes playing the file more convenient on large screen monitors (no monitor menu reprogramming will be necessary for aspect resizing). However, the quality MAY appear to be significantly inferior to SD TV playback.

■ TRUE HD materials (HDV tapes, HD camera files, slides, photos, etc) can be transferred in HD to a hard drive or Blu-ray. This can also apply to movie film. However, with film - although neither R8mm, S8mm or 16mm can yield HD results - at least a true ORIGINAL 1st generation TRANSFER can be made as a raw HD file. This is not so with standard definition video tapes where the transfer is always 2nd generation quality (sometimes 3rd or more generations if the supplied tapes are copies from other original tapes).

■ “Codecs” are the encoding “format” that the PC reads to play the video back. Currently Telefilm utilizes the high quality DV codec (almost identical to the broadcast DVCPPro/DVCam formats with 5 to 1 compression, 25 megabits) for both Windows and Apple/MAC transfers. Also available is the Apple codec “ProRes25” (for both SD and HD) which is wrapped in an MOV extension. “Uncompressed” is offered at an additional cost but requires a very fast computer. Uncompressed is generally used in TV applications and for lossless editing. Other codecs are available via a transcoding process.