

DVD Authoring Specifications

What Is the DVD Authoring Process?

The DVD process involves Encoding, Authoring and Mastering which leads to Replication of a title. Authoring is the portion of this process, that through programming, combines prepared audio and video files, with the interactive aspects of DVD such as menus, chapter points, subtitles, or the ability to select multiple language tracks or camera angles.

1. Encoding

Video and Audio Preparation

Before we receive source footage, all editing should be completed, or we can assist you utilizing our analog or Media 100 non-linear editing suites. Audio can be encoded from a separate audio source, or from the video source, however, included time code should match if coming from separate sources.

Source Formats

We support all of the following video formats: Digital Beta, Beta SP, DVC-Pro, DVCAM, Mini DV, S-VHS, Stereo Hi-Fi VHS, 8MM, Hi8, MII, 3/4" SP, 3/4", and 1" Type C. We also produce MPEG1 and MPEG2 files using software transcoding on Avid, Media 100, Quicktime, and AVI multi-media digital files. Audio formats supported are: R-DAT, CD-R, 1/4" Open Reel, cassettes, SD2, AIFF and WAV.

Video Encoding

Video is encoded to MPEG2 compression typically, using Spruce's real time hardware encoding. Up to (at least) 133 minutes of High Quality Digital Video is possible.

Audio Encoding

Audio can be processed as Digital Dolby (AC3), PCM, or MPEG. DVD allows up to 8 selectable soundtracks, and for each we support a variety of channel modes, from Mono and Stereo, up to Stereo 5.1.

Software Transcoding

We achieve real-time encoding quality levels in software transcoding, while avoiding quality loss involved in taking digital files to analog format for real-time encoding. The encoding process takes about 8 - 15 times the initial real-time encoding duration, but all options such as filters and formats for real-time encoding are available.

Data Rates and Quality Control

We can provide the highest quality MPEG2 compression while minimizing the size of the files, using Variable Bit Rate encoding. Once video is encoded, the MPEG stream is checked for artifacts and if necessary those sections re-encoded at higher data rates.

2. Authoring

Menus, Backgrounds & Interactive Features

Backgrounds for menus can be videos, or full color stills created from Photoshop and Windows Bitmap files. They are then overlaid with dynamic accents of limited colors, and hot spot linking regions are defined. Menu artwork can either be supplied, or we can create them to your specifications.

Subtitle Files

If applicable, subtitle files are typically text, but can be graphics or QuickTime, and can either be supplied or we can generate them for you to your specifications.

DVD-Video VOB Files

Video and audio streams are the result of the encoding process, and during the authoring stage are woven together with menus, subtitles, and connecting logic to produce Video Object Files (VOB). DVD-ROM applications can also link to these files for enhanced projects.

DVD-Video Previewing and Emulation

Interactive features are tested in an emulation program from a hard drive, and also in DVD Player preview mode before test discs are produced. Revisions are made if necessary, and once correct a DVD disc image is created which is then used to cut a DVD-R or DLT master tape.

3. Mastering

DLT Master Cartridge

With all revisions and testing complete, the project moves into the mastering stage, before moving on to replication. In this stage the DVD disc image is written to a DLT tape which will make the "Glass Master" of your title.

Short run testing

Although often unnecessary, short test runs of up to 10 discs may be replicated at this point for further testing and review. If changes are required, a new DVD disc image, DLT and "Glass Master" are then created.

Disc Art and Packaging

A large variety of disc labeling and packaging options are available, either produced by us using your supplied art, or outsourced to affordable high quality printers.

4. Replication

Once mastered, your DVD title is ready for replication in any number desired, and in packaging of your choice. We can also distribute your DVD title through our Fulfillment Services Department. Please call for details.



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