

DSA35TM by Cinevation

Digital Sound Adapter

The next generation Cinevator Audio Interface

The DSA35TM is a new, flexible, file-based interface for recording Dolby Digital®, DTS and analog optical sound on the Cinevator Real-Time Digital Film Printer.

Overview

The DSA35 is a new, file-based audio preparation workstation for the Cinevator; designed to simplify the sound-recording process, reduce complexity in the audio infrastructure surrounding the Cinevator and provide new options when recording release print with sound. The DSA35 replaces existing Dolby CA-10 and DTS Timecode Generator hardware in the Cinevator workflow.

Central to the DSA35 concept is a separation of the sound-recording workflow into distinct preparation and recording steps:

Step 1 is to prepare the audio data, transcoding the source media into the Cinevator's own, internal exposure format. Audio can be previewed and verified before transferring via Ethernet to the Cinevator's internal storage.

Step 2 is to record the audio to film. Audio data is streamed directly from the Cinevator's internal storage, removing the need for external playback devices. No operator action is needed to load Dolby MO disks or to re-arm DTS equipment in preparation for recording.



The screenshot displays the DSA35 software interface, which is divided into several sections. At the top left, the 'DSA35' logo is accompanied by an orange waveform icon. Below this, the 'Projects' panel on the left features a 'List' and 'Tree' view. The 'List' view shows a table of projects with columns for 'Name' and 'Last updated'. Projects listed include 'Casablanca', 'Demo', 'Dolby Camera Tests', 'Dolby Camera Tests', 'Gone With the Wind', 'The Sound of Music', and 'Vertigo'. Below the list are buttons for 'New Project', 'New Folder', and 'Delete'. A 'Project name' field is set to 'Dolby Camera Test'. Other fields include 'Film title' (Dolby Camera Test), 'Customer' (Cinevation AS), 'Category' (Test), 'Language' (None), 'Created by' (fixuser), 'Created on' (2010-03-28 20:10:40), 'Updated by' (fixuser), 'Updated on' (2011-03-03 14:58:30), 'No. of reels' (3), and a 'Description' field. The main 'Reels' panel on the right has tabs for 'View/Edit', 'Dolby Digital Import', and 'Cinevator Transfer'. The 'View/Edit' tab is active, showing 'Reel 1' configuration. Fields include 'Reel name' (CA10 System Diagnostic), 'Reel number' (1), 'Updated on' (2010-03-28 20:13:26), 'Trailer' (checkbox), 'Language' (None), 'Version' (1), 'LFOA' (0), and a 'Description' field. Below these are sections for 'Analog Track', 'Dolby Digital Track', and 'DTS Track'. The 'Dolby Digital Track' section shows 'No. of frames' (1585), 'Filename' (Dolby Camera Test-digital-r1-[34F8B48C-8C23-04C0-A48F-FD65B2BFDAA1].fxl), 'Description' field, 'Source' (2C67B266), 'Last import' (2010-03-28 20:13:26), 'No. of fixels' (6338), and 'Density patch' (774). At the bottom, a table lists reels: 'Reel 1: SV sync tests' (DS10 Version 1.0, 3084 frames) and 'Reel 33: Tones' (8055 frames). Each reel has buttons for 'Analog', 'Digital', and 'DTS'. At the bottom right are 'Expand All' and 'Collapse All' buttons. A 'Create Reel' button is at the bottom left of the Reels panel.

Key features

Dolby Digital: The DSA35 has been developed in close conjunction with Dolby Laboratories and certified for use in the recording of the Dolby SRD format on film. As the format is recorded directly from the Cinevator's internal storage, no operator action is needed to load MO disks or reset CA-10 playback between reels, reducing potential for human error and cutting the expense of wasted stock.

DTS Timecode Generation: Recording of a DTS track has always relied on operator accuracy when entering serial numbers into Timecode Generator hardware and re-arming of this hardware between reels. By incorporating DTS timecode generation directly into the DSA35 user interface, production efficiency is increased and the potential for error in darkroom operation is significantly reduced.

Stereo-Analog Optical Recording: Cinevator users are given new flexibility when recording stereo-analog only jobs. Audio can be imported to the DSA35 as digital files (WAVE, Broadcast WAVE, AIFF) for recording directly from the Cinevator's internal storage.

Audio Library: The DSA35 allows for the storage of around 100 feature films internally, providing efficient access to data for future recording, and allows projects to be exported across a network for long-term storage or archiving.

Looped Recording: Installation of the DSA35 adds looped recording capabilities to the Cinevator, providing far greater speed and cost efficiency in the production of trailers and commercials.

Section Recording: When recording from DSA35 audio files, Cinevator users have access to section recording for testing or quality control purposes.*

System specifications

Audio Processing and Recording Formats

Dolby Digital (SRD) + Dolby SR
DTS Timecode
Stereo analog / SVA (non-Dolby source)

Supported Dolby Digital (SRD) audio source

Dolby MO Disk
Compact Flash (future use)

Stereo Analog audio source

WAVE / Broadcast WAVE, AIFF, FLAC (stereo or mono)

General Features

Audio transcoding and preparation
Audio library creation and management
Ethernet data transfer to Cinevator
Stereo monitoring from workstation (LtRt or 5.1 mixdown)
Multi-channel monitoring from workstation (5.1 + LtRt) **
Record-time monitoring of stereo analog track *
Loop recording and section recording on the Cinevator

Hardware platform

3RU rack-mount workstation
Linux host operating system
Internal Magneto-optical drive (5.2 GB / SCSI II)
Internal Compact Flash reader (Type I / II) *
500 GB internal workstation storage
Gigabit Ethernet (10/100/1000 Base-T)

Audio monitoring interface

2-channel AES/EBU digital output
2-channel balanced analog output
8-channel AES/EBU digital output **
8-channel balanced analog output **
Digital + analog break out cables (supplied)

Additional System Requirements (user supplied)

USB keyboard and mouse
Monitor (DVI / VGA / HDMI)
- 1280 x 1024 minimum resolution
- 1600 x 1200 recommended
Speakers / audio monitoring hardware

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** Future capability planned for Q2 2011 release ** Optional feature*