

DFT SONDOR VERSA & RESONANCES





DFT Sondor Versa & Resonances

modular archival digitizing of sound



DFT Sondor Versa & Resonances is a modular and scalable framework for archival digitization of moving film sound. At its core is a precision film transport system, dedicated to the task of delivering high quality stable sound ingest - the essential core to any high level film audio digitization process. DFT Sondor Versa is a scalable audio scanner for moving film sound transfers. All sound head modules can easily be added at anytime. This scanner adapts to your needs and grows with you! DFT Sondor Versa can be configured to ingest audio from a range of

film types including 35mm, 17.5mm and 16mm, provided they have the following audio on film:

- separate-magnetic
- com-magnetic
- com-optical

In addition, DFT Sondor Versa can be optioned with a digital Resonances camera based audio ingest option. Resonances offers advanced optical soundtrack scanning - a superior scanning system for all optical soundtracks, including soundtrack negatives. Resonances also includes a range of real-time restoration features.

DFT Sondor Versa & Resonances

Key Features

- simultaneous transfer of separate magnetic or optical sound tracks
- optional RESONANCES optical soundtrack scanning
- noise reduction by image processing
- image spread correction
- safe & precise handling of fragile archive stock

Conventional audio playback options

Magnetic:

Exchangeable head-blocks cover all formats of Sepmag and Commag. Standard and archival type heads are available.

Optical:

Versa uses red LED head-blocks for mono and stereo optical soundtracks. Proper film-to-head contact enforced by spring-loaded film guides and pressure roller for archival type head-blocks. Plug & Play conversion between 16mm and 35mm

head-blocks with automatic recall of the audio set-up of each head-block.

Head-blocks available for any known track standard. Standard analogue output or optional AES/EBU digital output signal.

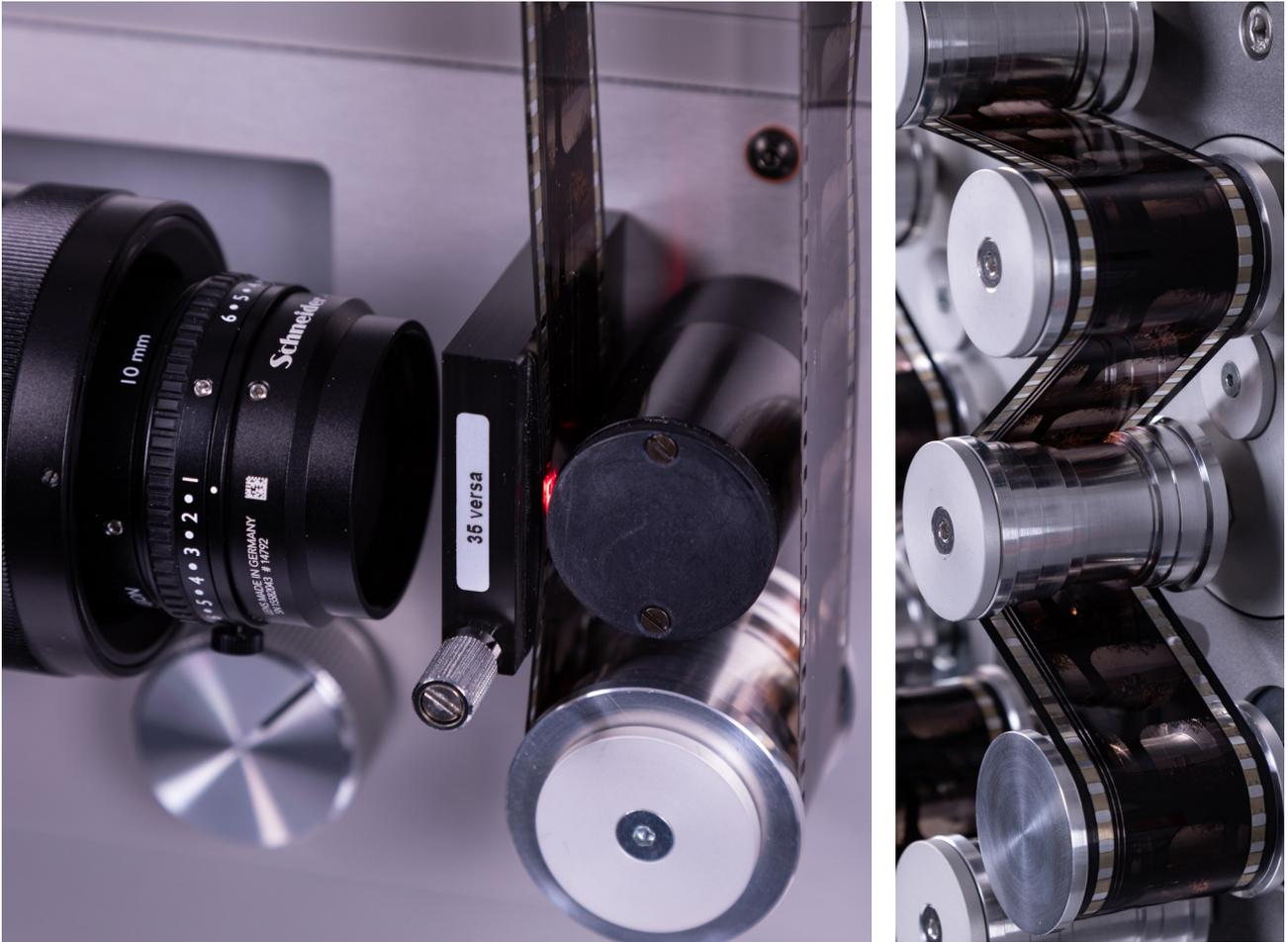
RESONANCES optical soundtrack scanning system

The Resonances optical soundtrack scanner system reads all types of 16mm and 35mm optical tracks eliminates image-spread distortion from soundtrack negatives. Resonances offers best possible transfer for variable

area and variable density optical tracks from print and negatives. Resonances is based on a CCD line-scan camera combined with digital image processing enabling the operator to remove optical defects of the soundtrack at the time of transfer before it is converted into audio.

These defects include:

- lateral and azimuth off-sets
- under- / overexposure
- dust
- scratches
- image-spread distortion (negatives)



Resonances

the solution for scanning negative optical sound tracks

Key Features

- for variable area and variable density soundtracks
- for silver halide, high-magenta and cyan dye tracks
- for prints and negatives
- output as WAV file, digital or analogue audio

Resonances for oma e and oma s includes

- adjustable diffuse LED light-source, safe to use with nitrate stock
- camera assembly holding linescan camera and macro lens system, with calibrated 16mm and 35mm positions
- PC system including required boards, keyboard/mouse and processing software
- Audio Interface providing balanced/unbalanced analogue, AES/EBU, S/PDIF coax/optical and ADAT format for main-output and monitoring; from 16bit/48kHz up to 32bit/96kHz resolution
- 1 year hardware warranty and software support/updates

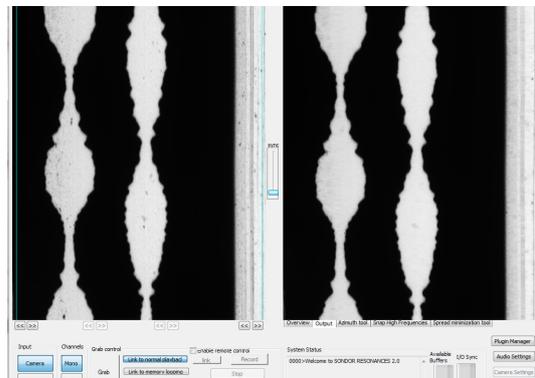
- software tools
- real-time display of the tracks, before and after processing
- adjusting track size, position and contrast
- LUTs for negative/positive conversion
- mono/stereo rendering
- noise reduction by image processing
- plug-in interface allows to add further tools
- remote control of film transport
- control of camera and audio interface

What is image spread distortion ?

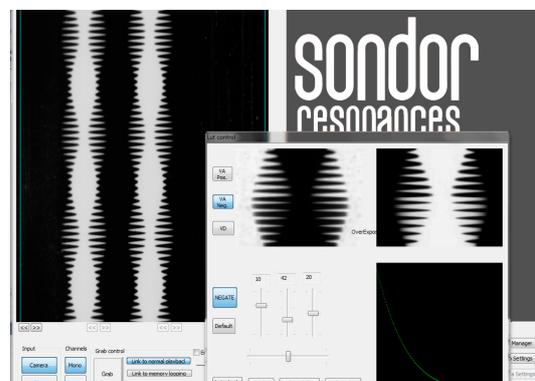
Image spread induces distortion (linear and nonlinear) of the analog-recorded signals and blur on the digital-recorded patches.

This drawback is overcome in the sound transfer house by cancellation of the effect of image spread in the printed film by adjusting the exposure (thus the density) of the negative.

For soundtrack restoration directly based on optical negatives, this intentional overexposure has to be corrected either by drawing a print cancelling out the distortion (demand time, money, chemicals and waste water) or by applying software based correction with an adequate tool.



Dust busting - before and after

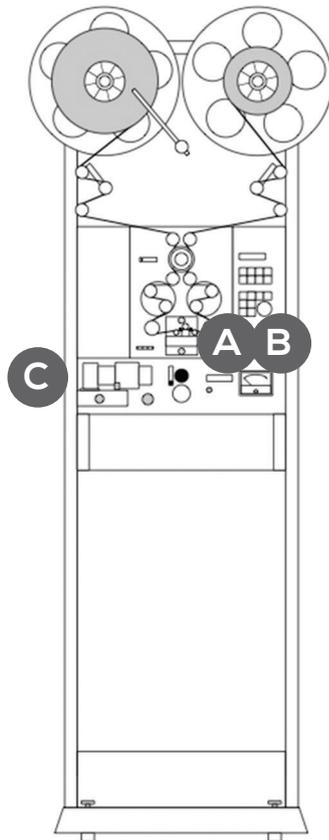


Converting negative tracks to positive - eliminating image spread distortion

Specifications

Film Format	16 mm, 35 mm 4-perf/3-perf/2-perf (35mm)
Capacity	2100ft / 640m on cores
Speed	24/25 fps transfer speed for image 0-250 fps forward/reverse shuttle speed (400 fps in 16mm)
Locking time	< 3 sec.
Sync. modes	Wordclock internal/external Biphase out (1, 2, 10 pulse per frame)
Machine Control	Serial 9-pin (Sony) RS-422
Dimensions	HWD: 1776mmx744mmx763mm
Weight	180 kg
Mains	110V-240VAC, 50/60Hz 70VA idle, 300VA max

Typical Configurations



- A. Conventional optical heads
- B. Magnetic sound heads
- C. RESONANCES optical soundtrack scanning



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DFT's policy is one of continuous improvements and we reserve the right to change the specification at any time without prior notice.