

X F R S T N

ON VIEW
07/17–09/08/2013

STATION 2: VIDEO

Accepts Betacam SP, VHS, SVHS, DVCam, Mini-DV formats for digital transfer

Transfers are facilitated by Audio-Visual Conservator of “XFR STN” Walter Forsberg and Technicians Rebecca Fraimow, Leeroy Kun Young Kang, Kristin MacDonough, and Bleakley McDowell. The spirit of “XFR STN” is both conceptual and educational, and open dialogues around process as well as context are part of its motivation. Feel free to engage technicians and artists whether you are here to transfer or not.

1. TEKTRONIX 1730 SERIES WFM WAVEFORM MONITOR & 1720 SERIES VECTORSCOPE

Special kinds of oscilloscope are used in video applications to measure and calibrate voltages, which correspond to picture information. A vectorscope is used to measure a video signal's chrominance, or color information. Waveform monitors are used to measure a video signal's luminance, or brightness levels. Waveform monitors and vectorscopes are the reason why those mysterious “color bars” test patterns exist on videotapes. Feel free to ask one of the “XFR STN” technicians to show you how they work. The **Tektronix 1730 Series Waveform Monitor** and **1720 Series Vectorscope** are analog models capable of monitoring both analog NTSC and PAL video signals. The **Tektronix 601E Waveform Monitor/Vectorscope** is a digital hybrid model, with SDI input, enabling a more complex analysis of the video signal across both analog and digital domains.

2. VHS (1976)

Requiring no introduction, the JVC company's Video Home System (VHS) 1/2" videotape was one of the most successful consumer electronics technologies in any media format. Commercially manufactured until the late 2000s, VHS revolutionized public creation, distribution, and consumption of moving images. Hollywood studios released films on VHS for home viewing, “time-shifting” consumers recorded millions of hours of television, and camcorders enabled a new paradigm in home movies that featured instantaneous playback, sound, and editing capability. Although initially less technologically robust than Sony's contemporaneous 1/2" Betamax format, VHS gained market dominance thanks, in no small part, to its adoption by the pornography industry. JVC's 1987 introduction of the improved S-VHS specification featured increased picture information (resolution; luminance information) and hi-fi audio capacity. The two **Sony SVO-5800** units in use here were among the highest quality VHS/S-VHS editing and playback VTRs manufactured and date from the late 1980s.



3. BETACAM SP (1986)

Out of the ashes of the early 1980s VHS-Betamax format war, Sony's component Betacam SP ("superior performance") format arose to become the industry standard for professional video recording, particularly within broadcast television, where it became heir to the bulkier mid-1970s 1" open-reel videotape format. This dominance in broadcast circles continued until the early to mid-1990s and dispersed adoption of digital videotape formats like D1, D2, and Digital Betacam. The Dynamic Tracking model, the **Sony BVW-75**, was introduced as a flagship late-'80s Betacam SP deck, featuring a built-in **TBC** (Time Base Corrector), which eliminated jitter and allowed for proper adjustment of phase difference, Chroma Process improvement for better color enhancement, Digital 3-line comb filter for reducing cross-color interference, and four-channel audio recording system with Dolby Type-B noise reduction.

4. DVCAM (1996)

5. MINI-DV (1998)

Leading video manufacturers began developing a low-cost format capable of digitally encoding video signals on magnetic tape in the early 1990s. The resultant 1/4" Digital Video format, known to most simply as "DV," employed discrete cosine transform (DCT) image compression (also used in the still image JPEG format specification). Manufacturers eventually introduced their own proprietary branded versions of professional-grade DV: Panasonic's DVCPRO and Sony's DVCam in 1995 and 1996, respectively. The smaller Mini-DV cassette version of the format was designed for amateur use, but by the end of the 1990s, they became widespread in the explosion of nonlinear editing software and practices that accompanied DV's near-total replacement of analog videotape formats. The Sony **DSR-45** and **DSR-11** DV decks are two models expressly representative of that important nascent era of digital video production and editing.