QC TOOLS

Digitized Materials Quality Control Workflow

Below is a working draft of the phases and individual steps we take upon receiving digitized material on hard drives from our digitization vendors. For ease and control, batches of information are based on the hard drive they arrived on. We track the progress of the hard drive as it moves through the steps in a shared tracking document, gathering additional information (or exceptions) as necessary.

QC-004	Integrity checking	Vendor harddrive	Generate CHECKSUM A on all files on harrdrive, stored in a CSV file.
QC-005	Basic QC	Vendor harddrive	Perform aural and visual QC review on selected files (25% of total assets). Identify and flag issues for review.
QC-006	Metadata QC	Vendor harddrive	Audit the technical metadata against requested specifications.

bavc
BAY AREA VIDEO COALITION

CARNEGIE HALL

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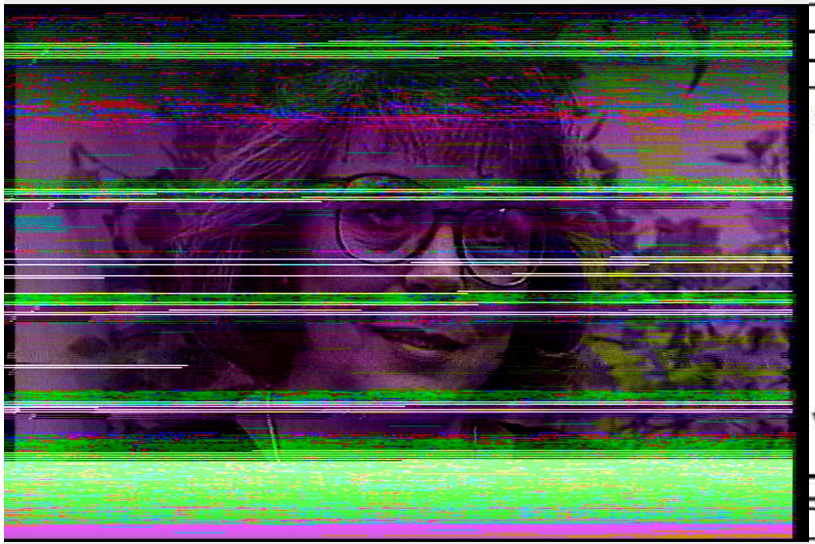
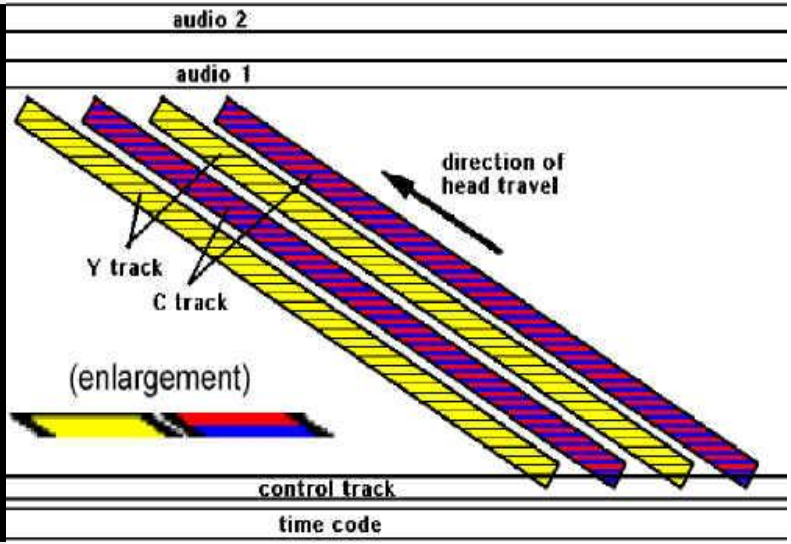
Betacam SP: Track Configuration and Damage





Dana Lee, http://www.danalee.ca/ttt/

https://www.bavc.org/preserve-media/preservation-tools

QCTools

QCTools (Quality Control Tools for Video Preservation) is free, open source software developed by BAVC in collaboration with Dave Rice and the Dance Heritage Coalition. It offers conservators and archivists new tools to enable the inspection of video signal characteristics for batches of digital media, in order to prioritize archival quality control, detect common errors in digitization, facilitate targeted response, and thus increase trust in video digitization efforts.

Version 0.7.3 now available for download!

Download version 0.7.3 for Mac

Download version 0.7.3 for Windows

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Index of /download/snapshots/binary/qctools

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MOVING IMAGE PRESERVATION OF PUGET SOUND

QCTools Manual

YUV Levels, Diffs, BRNG & Saturation

Sample Videos

User-generated:

- FFmpeg SMPTE Bars
- Fuzzed Bars

In the YUV Folder:

- EIAJ_ClippedSetUp.mkv
- EIAJ_CrushedSetUp.mkv
- EIAJ_CorrectLevels.mkv

In the Saturation Folder:

- Hi8_CrashRecord.mkv
- BetaSP_Damage.mkv

10 seconds of SMPTE Bars

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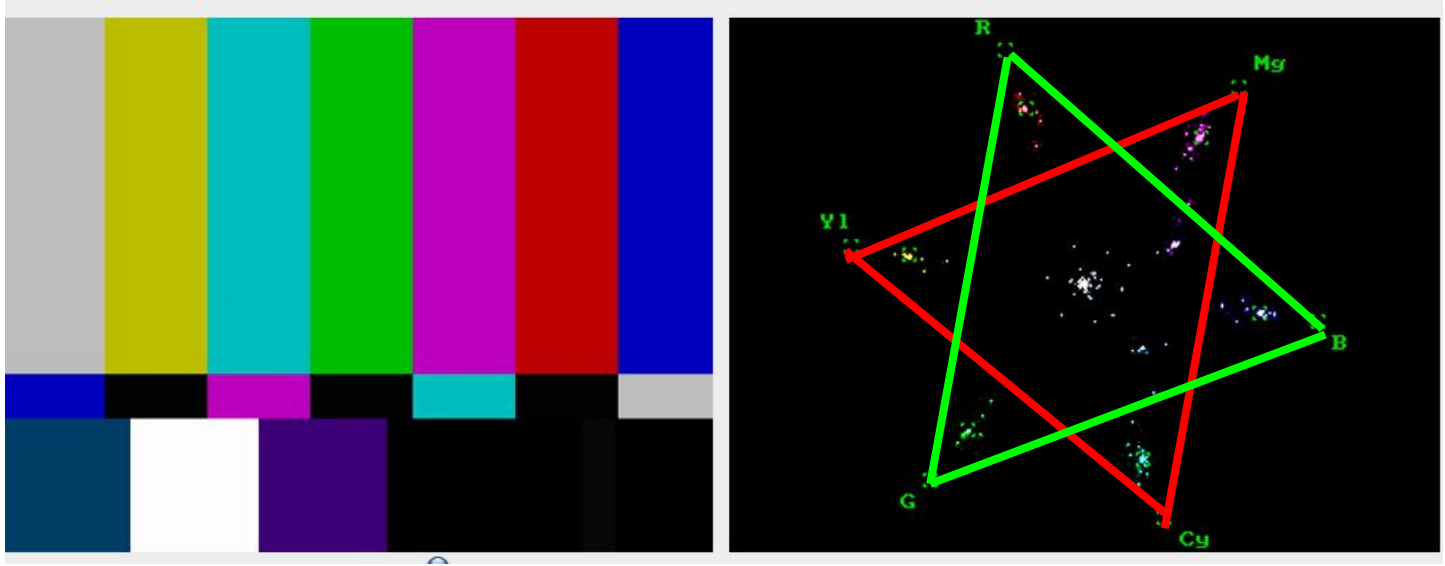


BAY AREA VIDEO COALITION

YUV Levels, Diffs, BRNG & Saturation

Fuzzed Bars

ffmpeg -i ~/Desktop/SMPTE.mov -bsf noise -map 0 -c copy ~/Desktop/Fuzzed.mov

2.12 noise

Damages the contents of packets without damaging the container. Can be used for fuzzing or testing error resilience/concealment.

Notation	SMPTE type	Method	Tape width[a]	Resolution, TVL/PH (approx.)
Type-B	B	Direct color, segmented scan	1 inch	430
Type-C	C	Direct color	1 inch	430
U-matic	E	Color-under	¾ inch	250
U-matic SP		Color-under	¾ inch	320
Betacam	L	Component analog (CTDM)	½ inch (Beta)	320
Betacam SP	L	Component analog (CTDM)	½ inch (Beta, MP)	360
M-II	M-2	Component analog (CTDM)	½ inch (VHS, MP)	400
Betamax		Color-under	½ inch (Beta)	240
VHS, VHS-C	H	Color-under	½ inch	240
S-VHS	H	Color-under	½ inch	400
Video-8 (8 mm)		Color-under	8 mm	280
Hi8		Color-under	8 mm MP/ME	400

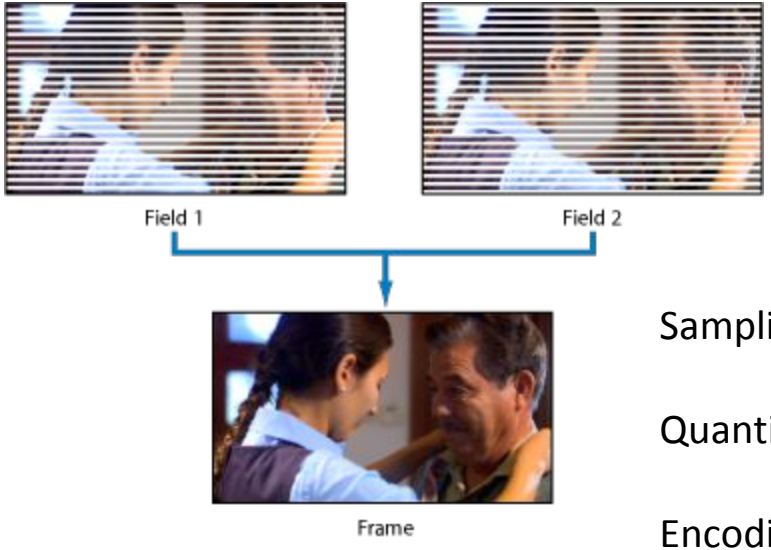
Table 35.1 **Analog videotape formats for SDTV** are summarized. At the top are studio formats; the shaded rows at the bottom are consumer formats.

BAY AREA VIDEO COALITION

Poynton

Digitization

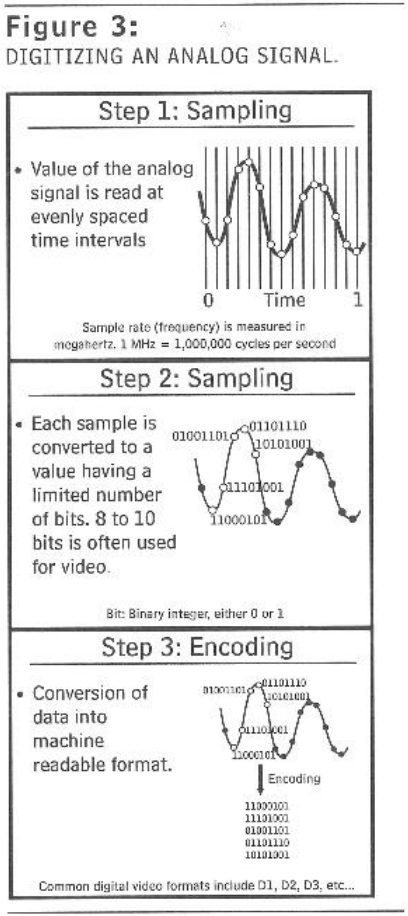
Lines, Fields, and Frames

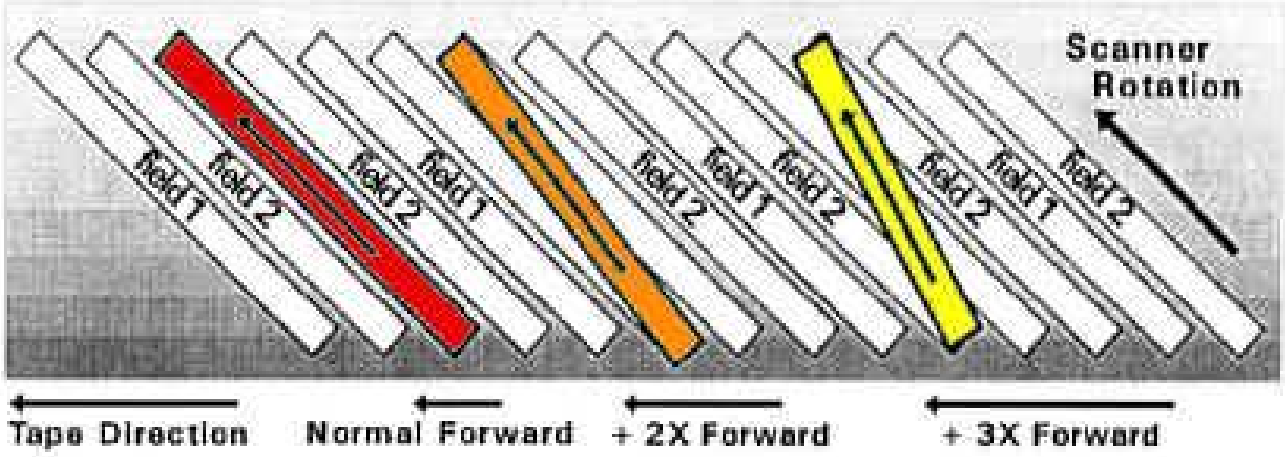


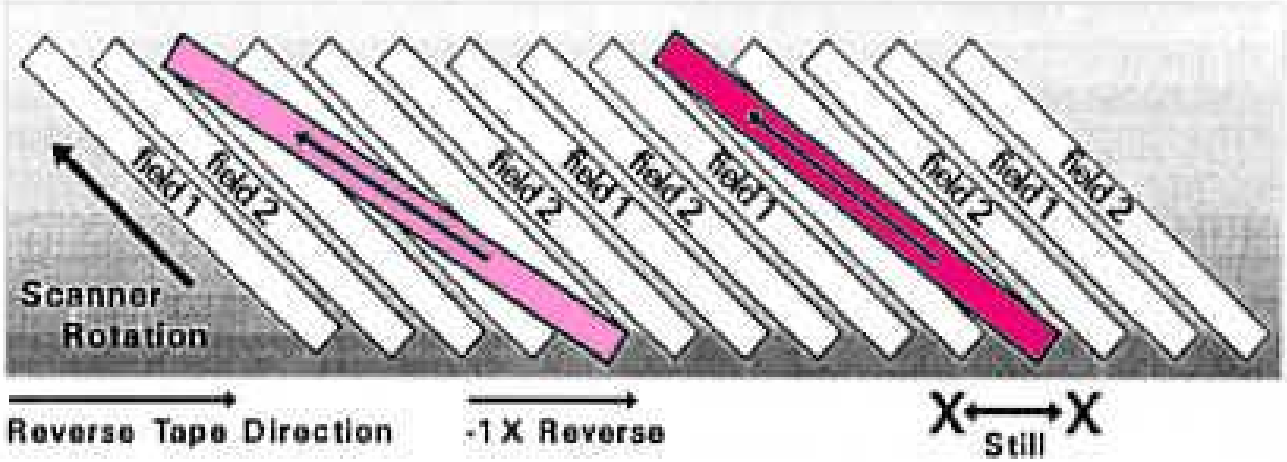
Sampling

Quantization

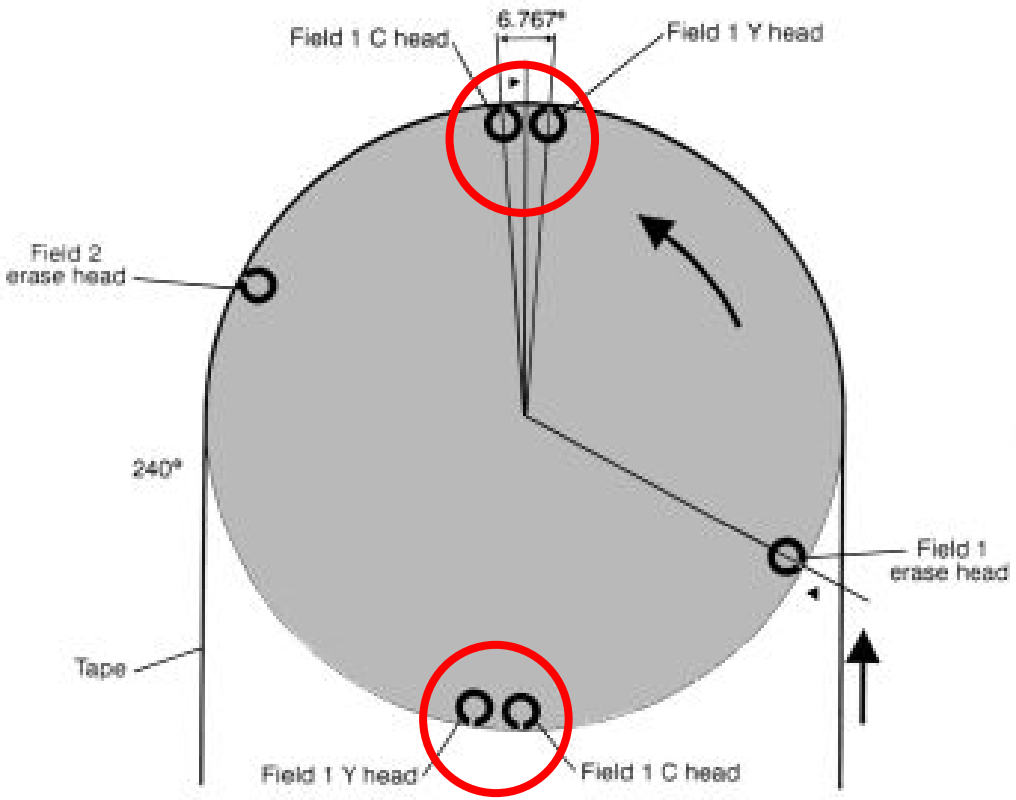
Encoding







BAY AREA VIDEO COALITION



http://betacam.palsite.com/format.html

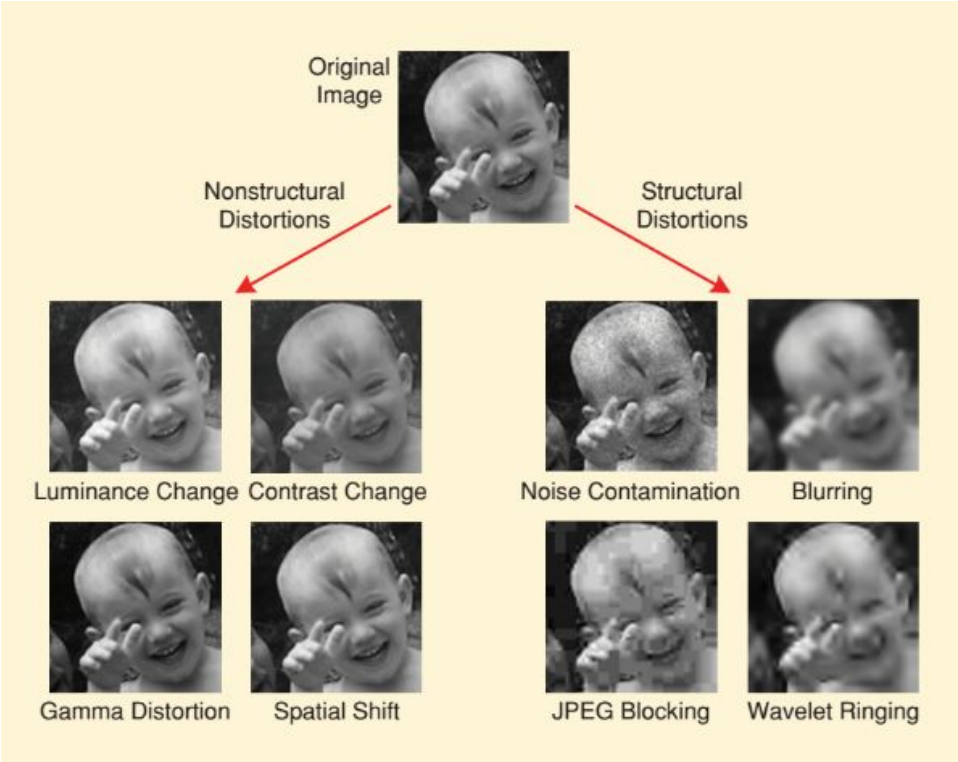
MSEf, PSNR, SSIM: Image Quality Metrics

Mohd Solahuddin YouTube

MSEf, PSNR, SSIM: Objective Image Quality Metrics

Wang and Bovik

MSEf, PSNR, SSIM: Objective Image Quality Metrics



Wang and Bovik

MSEf, PSNR, SSIM: Image Quality Metrics

Daniel Robert Franklin · University of Technology Sydney

Bear in mind that none of these objective measures are particularly good at predicting human visual response to image quality. Sometimes PSNRs vary wildly between two almost indistinguishable images; similarly you can have two images with the same PSNR where there is a very obvious difference in quality. The structural similarity index measurement (SSIM) and some of its variations are generally considered better from this perspective, but still not perfect models for human perception.

Aug 19, 2014