



FILMS
EST. 1966

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May 20, 2015

Need for HD content more urgent than ever.

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- Theatrical Distribution now requires DCPs in HD resolution.
- Dramatic Changes to Production Technology in last 2 years.
- Proposed Alternative to Circumvention not workable.

Program Content Under Strict QC Rules

Kartemquin Documentary Films on Broadcast and in Theatrical Distribution

- PBS: All deliverables must be full HD 1080x1920.
- PBS only allows SD clips (DVD Resolution) if no HD version exists.
- CNN rejected many clips in "Life Itself" due to bad SD framing.
- NBC Universal rejected many archival shots in "The Trials of Muhammad Ali" that were SD or lower resolution.



CLOUD NINETEEN
DVD•MOTION•SOUND•EDIT

FAIL

QUALITY CONTROL REPORT

TITLE:	LIFE ITSELF <i>TEXTED VERSION FEATURE</i>	VIDEO ELEMENT:	PRO RES HQ
CLIENT:	Magnolia Pictures	TYPE OF QC:	SOURCE ASSET QC
DATE:	5/12/14	SOURCE:	HDSR MASTER
VERSION:	1.78 FULL FRAME	FILE SIZE:	151.48 GB
STANDARD:	1080psf	PO#	
TIMECODE:	23.98 NDFTC	OPERATOR:	Wendy Wiencek
FEATURE:	LifeItself_Feat_hdr_178_SS2315_2.mov	REC DATE:	5/12/14
TEXTLESS:	N/A	REC DATE:	
LINE COUNT	21-560	BARCODE #	SS2315-2
HORIZ WIDTH	11 µs	TXTLS MATERIAL:	N/A
		SUBTITLES:	NO

PARTS	COLOR SPACE	PROG START	PROG END	LENGTH
FEATURE	4:2:2 HQ	01:00:01:00	03:00:24:00	2:00:23:00

CHANNEL	AUDIO CONFIG	CHANNEL	AUDIO CONFIG	CHANNEL	AUDIO CONFIG
CHANNEL 01:	LEFT 5.1	CHANNEL 07:	LEFT TOTAL 2.0	CHANNEL 13:	N/A
CHANNEL 02:	RIGHT 5.1	CHANNEL 08:	RIGHT TOTAL 2.0	CHANNEL 14:	N/A
CHANNEL 03:	CENTER 5.1	CHANNEL 09:	M&E LT 2.0	CHANNEL 15:	N/A
CHANNEL 04:	LFE 5.1	CHANNEL 10:	M&E RT 2.0	CHANNEL 16:	N/A
CHANNEL 05:	LEFT SURR. 5.1	CHANNEL 11:	N/A		
CHANNEL 06:	RIGHT SURR. 5.1	CHANNEL 12:	N/A		

GENERAL COMMENTS
Texted version documentary - too much text to note every instance. Recommend a full textless version of feature for international delivery. Video: LOTS of thick lines & Framing errors. Some windowboxed old legacy 4X3 (VHS) material has been FYI'd as creative intent (CLIENT ADVISE). Only shots that may pose a problem for iTunes acceptance have been noted. Luminance levels within legal limits. Legacy footage is mostly old SD 4X3 material, many generations down, with lots of inherent age-related issues, examples noted. One recorded-in digital hit could be fixed (CLIENT ADVISE). Audio: Peaks to +16, no clipping detected. Overall quality and sync throughout are excellent. Audio is PASS.

FINAL RESULTS - PASS/FAIL:					
iTunes/VOD:	V FAIL A PASS	DVD/BluRay:	V FAIL A PASS	BROADCAST:	V FAIL A PASS

FINAL RESULTS REMARKS:
FAIL - MANY FRAMING ERRORS & THICK BLACK LINES, 1 LARGE RECORDED-IN DIGITAL VIDEO HIT (RECOMMEND FIXING); CLIENT ADVISE: WINDOWBOXED 4X3 FOOTAGE INTENTIONAL?



CNN "Life Itself" QC Report
(score of 3 is failure to pass)

01:00:00:00	01:00:01:00	VIDEO	File start - black	FYI
01:00:01:00	01:00:06:00	VIDEO	Program start - Logo: magnolia pictures (MOS)	FYI
01:00:07:00	01:00:18:00	TEXT	Over black: Main titles (fade in & out)	FYI
01:00:19:02	--	VIDEO	Picture fade in	FYI
01:01:56:20	01:02:07:21	TEXT	Feature title over action: Life ITSELF (cut to cut)	FYI
01:02:07:22	01:02:15:12	TEXT	Over action: Main titles continue (1 shot)	FYI
01:00:49:07	01:01:00:12	VIDEO	FRAMING: Thick line, top (first active line 24)	3
01:02:31:19	01:02:45:20	TEXT	Over action: DECEMBER 2012 (cut to cut)	FYI
01:02:45:21	--	VIDEO	T.C. Sync point - MS man in hospital bed, giving thumbs up	FYI
01:05:08:19	01:05:12:04	TEXT	Over action: From Roger's Memoir, <i>Life Itself</i> (fade in & out mid-scene)	FYI
01:09:07:13	01:09:14:09	VIDEO	FRAMING: Thick line, top	3
01:10:36:13	01:11:30:04	VIDEO	FRAMING: Thick line, top	3
01:12:01:18	SCENE	VIDEO	Example: Old legacy SD Source footage contains analog video dropouts, horizontal banding, creases, poor resolution, 4X3 side mattes, etc (RECURS THROUGHOUT)	FYI
			Old legacy 4X3 SD footage - intentionally window	



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PBS Rejects Up-Conversion of Ken Burns "Civil War" for 25th anniversary re-broadcast in Fall 2015.

- 1989 SD master up-converted to HD was rejected.
- Original 16mm footage had to be re-scanned in HD and program re-edited.

Theatrical Distribution of Programs

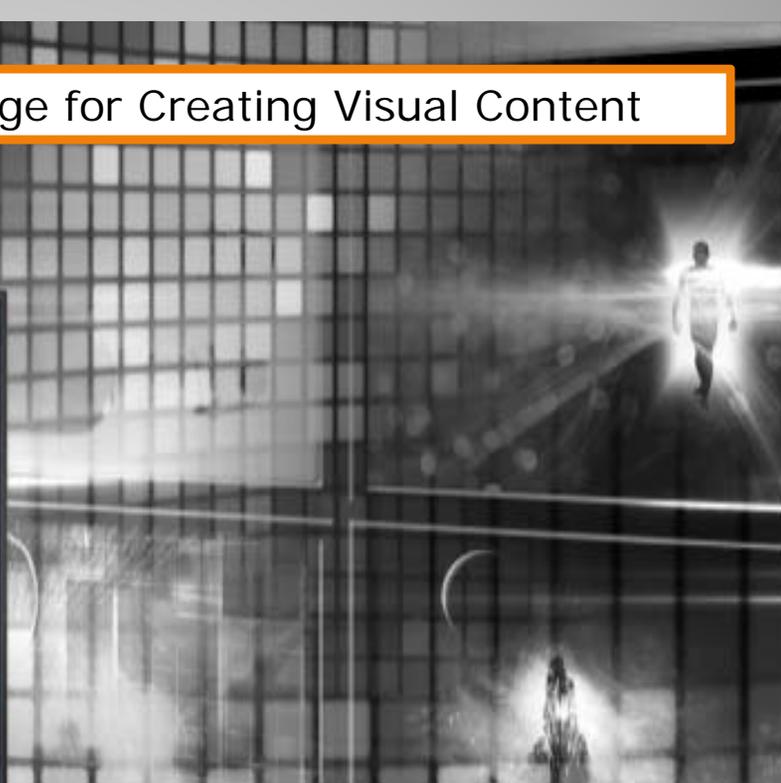
All film festivals and theatres now require content delivered only on DCP (digital cinema pac) to play on movie theatre digital projectors.

DCP Requires a minimum of HD resolution.

Program file must be converted to XYZ color space.

Program must have proper 24fps progressive frame rate.

Most Dramatic 2015 Technology Change for Creating Visual Content



720 x 480
(DVD)

1280 x 720

1920 x 1080
(Full HD)

3840 x 2160
(4x 1080p)

4096
x
2160
DCI
Standard

Resolution Comparison

- DVD 345,000 pixels or 1x DVD
- Blu-Ray 2,073,600 Pixels or 6x DVD
- UHD 8,294,400 Pixels or 24x DVD





- All New Cameras shown at NAB 2015 shoot 4K (3840x2160)



Arri Alexa XT: \$70,000



Go Pro Hero 4: \$500

4K Content Is Available Now



House of Cards, Marco Polo, etc.



Mozart in the Jungle, Orphan Black, etc.



Road to Machu Picchu, Biosphere Full, etc.



Chicago Fire, Suites & Covert Affairs, etc.



Direct TV Genie 4K set top box: Many Titles

Comcast Debuting 4K Cable Box This Year

By [Sean Captain](#) MAY 7, 2015 4:21 AM - Source: [Tom's Guide US](#) |  7 COMMENTS

TAGS: [TV](#) [+](#) [Streaming](#) [+](#)



4K Blu-ray players are finally coming, in late 2015

New Ultra Blu-ray players boast greatly improved picture quality—but we're waiting for the price

Published: January 07, 2015 01:15 PM

ULTRA HDTM
Blu-ray





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Samsung - 65" Class (64.5" Diag.) - LED - 2160p - Smart - 3D -...



Alternatives to Circumvention

Screen Capture Software Problems

- Stuttering Video due to Dropped Frames.
- Interlace artifacts create double image frames.
- Captured video is not correct HD 1080x1920 size.
- Mac Computers, used by most filmmakers, do not allow screen capture software to work with copy protected DVD, Blu-Ray, or iTunes content.

Opposition sample Clip #1



zulu te DVD_CCA_Class_6_Ex_1.mpg — Inspector
ktq.fcp

DVD_CCA_Class_6_Ex_1.mpg

Source: /Users/KTQ/Desktop/DVD_CCA_Class_6_Ex_1.mpg

Format: MPEG-2 Video, 776 x 344
MPEG Layer 2, 48000 Hz, Stereo (L R)

FPS: 29.97

Data Size: 67.7 MB

Data Rate: 7.19 Mbit/s

Current Size: 776 x 344 pixels (Actual) ←

Opposition Sample Clip #2



DVD_CCA_Class_6_Ex_2.mp4 - Inspector

DVD_CCA_Class_6_Ex_2.mp4

Source: /Users/KTQ/Desktop/
DVD_CCA_Class_6_Ex_2.mp4

Format: AAC, Stereo (L R), 44.100 kHz
AVC Coding, 1680 x 1050, Millions

FPS: 30

Playing FPS: (Available while playing.)

Data Size: 8.14 MB

Data Rate: 4741.14 kbits/s

Current Time: 0:00:00:00.00

Duration: 0:00:00:14.40

Normal Size: 1680 x 1050 pixels ←

Current Size: 840 x 525 pixels (Half)







Opposition Sample Clip #3



DVD_CCA_Class_6_Ex_3.mp4 - Inspector

DVD_CCA_Class_6_Ex_3.mp4

Source: /Users/KTQ/Desktop/
DVD_CCA_Class_6_Ex_3.mp4

Format: AAC, Stereo (L R), 44.100 kHz
AVC Coding, 1680 x 1050, Millions

FPS: 30

Playing FPS: (Available while playing.)

Data Size: 78.59 MB

Data Rate: 6367.98 kbits/s

Current Time: 0:00:00:00.00

Duration: 0:00:01:43.50

Normal Size: 1680 x 1050 pixels ←

Current Size: 1680 x 1050 pixels (Actual)

DVD_CCA_Class_6_Ex_3.mp4



748 F

DVD_CCA_Class_6_Ex_3.mp4



749 F



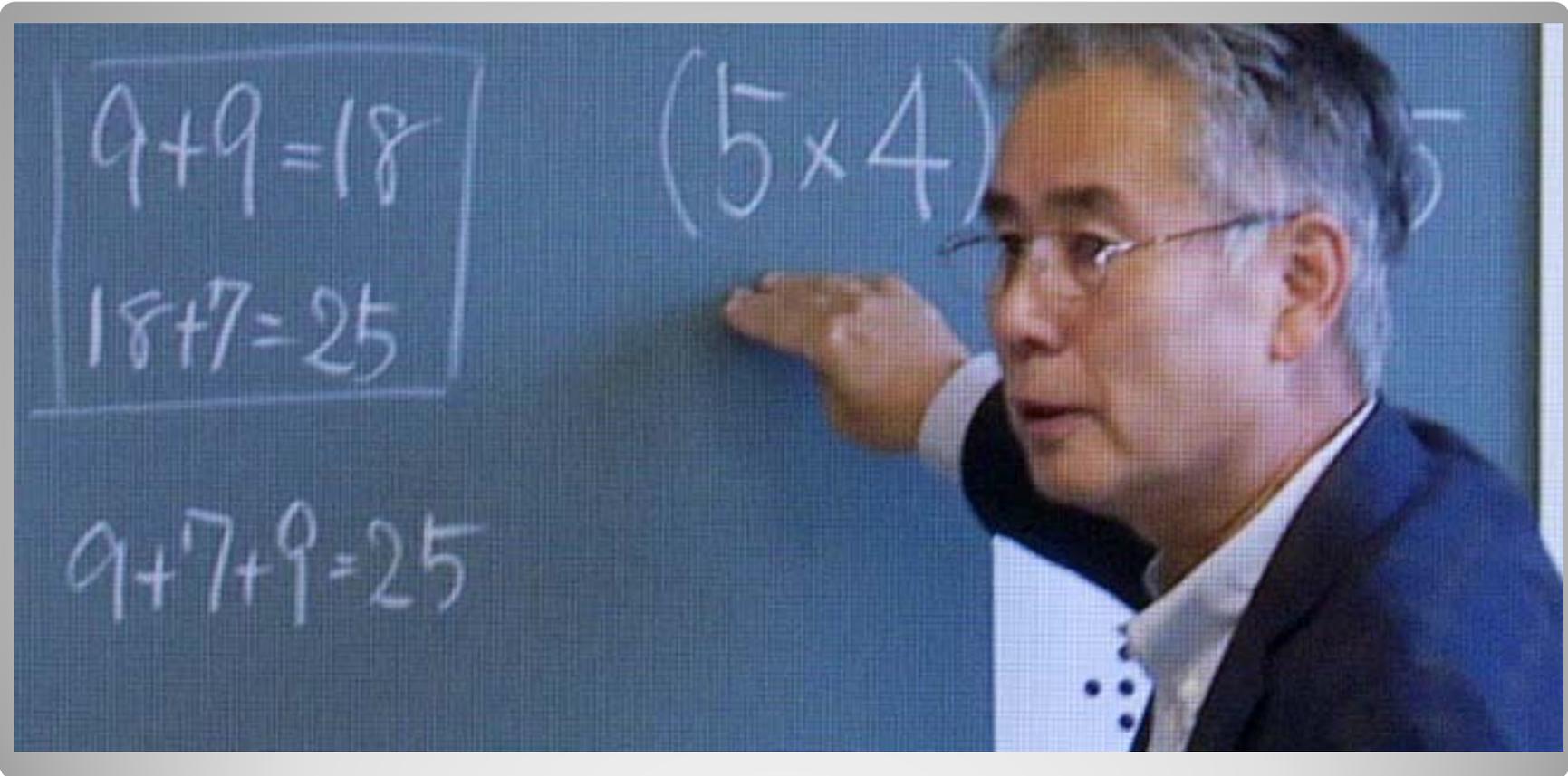


DVD_CCA_Class_6_Ex._3.mp4

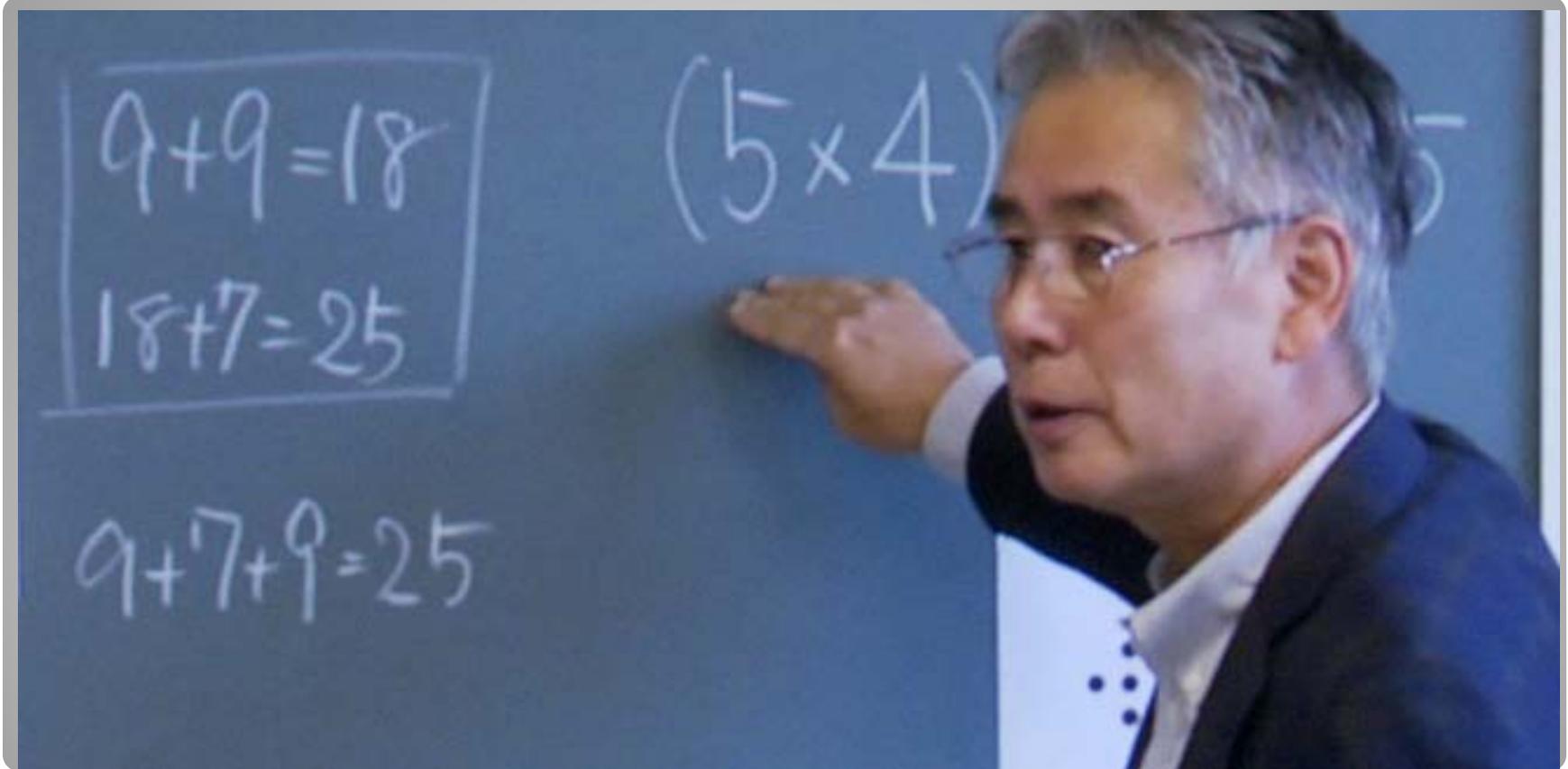


750 F





In Focus Camera shooting TV



Defocused Camera shooting TV

PBS Technical Requirements

2.1.3 The image must be free of compression artifacts (such as macroblocking and mosquito noise), aliasing (such as the artifacts associated with scan conversion), frame dropouts, and other artifacts association with conversion and encoding.

Summary

- Filmmakers need access to a minimum of HD (1080x1920) quality clips for both Theatrical and Broadcast distribution in order to pass Quality Control.
- Television industry has moved to UHD 4K resolution production that is 28 times the resolution of DVDs.
- Opposition Software Screen Capture clips as alternative to circumvention would fail Broadcast and Theatrical technical quality control.



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