

Clearcast Library

Delivery Specs

CLEARCAST LIBRARY INGEST SPEC

This document outlines the required audio, video and structural specifications of materials submitted to the Clearcast Library. It contains a breakdown of all the elements required for a material to pass QC and documents what's tested at each QC step.

QC STEPS

All materials submitted to the Clearcast Library are subjected to a two-stage technical and structural QC process.

Ingest Format QC

Once a material has been uploaded to The Clearcast Library it undergoes checks on the video and audio codec specification (See Codec Specification). If any attributes do not match the expected ingest specification for each codec then it will fail QC, at this stage and a new material must be uploaded.

Vidchecker QC

After the ingest format QC has been completed the material will then be passed on to an in-depth process where the audio and video will be decoded, and the following will be checked:

Video

Colour space - ITU-R BT.709

RGB Gamut - EBU R103

PSE Check - ITU-R BT1702

Audio

Integrated Loudness - EBU R128 -23dbLUFS

Peak Level - -1dbTP

Phase Coherence - Mean Phase must not be below -0.95

AVC INTRA CLASS 100

CONTAINER

- FORMAT: MXF
- FORMAT PROFILE: OP-1A

VIDEO

- FORMAT: AVC
- FORMAT PROFILE: HIGH 4:2:2 INTRA
- BIT RATE: 114 MBIT/S
- FRAME SIZE: 1920 X 1080
- ASPECT RATIO: 16:9
- FRAME RATE: 25 FPS
- COLOUR BIT DEPTH: 10 BIT
- SCAN TYPE: INTERLACED

AUDIO

- FORMAT: PCM
- SAMPLING RATE: 48KHZ
- BIT DEPTH: 16 BIT (MINIMUM)

Preset Settings "AVC intra class 100"



Export Settings

Preset Name: AVC intra class 100

Format: MXF OP1a

Based on Preset: AVC intra class 100

Comments:

Export Video Export Audio

Summary

Output: 1920x1080 (1.0), 25 fps, Upper, 100 (63% HLG, 51% PQ)
48000 Hz, 4 Channels, 24 bit

Effects Video Audio Captions Publish

Loudness Normalization

Loudness Standard: EBU R128

Target Loudness: -23 LUFS

Tolerance: 0.5 LU

Max True Peak Level: -1 dBTP

Configure True Peak Limiter

Look-Ahead Time: 12 ms

Release Time: 200 ms

Write Loudness Report

Specify Report Location

Browse...

Location: Next to Output File

Stream	Channel Configuration	Source Channels	Process
1	Stereo	1 - 2	<input checked="" type="checkbox"/>

- Use Maximum Render Quality Use Previews
- Use Proxies
- Set Start Timecode 00:00:00:00 Render Alpha Channel Only

Preset Settings "AVC intra class 100" — □ ×

Export Settings

Preset Name: AVC intra class 100

Format: MXF OP1a

Based on Preset: AVC intra class 100

Comments:

Export Video Export Audio

Summary

Output: 1920x1080 (1.0), 25 fps, Upper, 100 (63% HLG, 51% PQ)
48000 Hz, 4 Channels, 24 bit

Effects Video Audio Captions Publish

Video Codec

Video Codec: AVC-Intra Class100 1080

Basic Video Settings

Width: 1,920
Height: 1,080 } ∞

Frame Rate: 25

Field Order: Progressive Upper First

Aspect: Square Pixels (1.0)

HDR Graphics White (Nits): 100 (63% HLG, 51% PQ)

Render at Maximum Depth

Enable Smart Rendering codec

Transcode ANC / VBI packets

Export Settings

Preset Name: AVC intra class 100

Format: MXF OP1a

Based on Preset: Custom

Comments:

Export Video Export Audio

Summary

Output: 1920x1080 (1.0), 25 fps, Upper, 100 (63% HLG, 51% PQ)
48000 Hz, 4 Channels, 24 bit

Effects Video Audio Captions Publish

Audio Codec

Audio Codec: Uncompressed

Basic Audio Settings

Sample Rate: 48000 Hz

Channels: 4 Channel

Sample Size: 16 bit 24 bit

Separate mono tracks

DROPLET FILE BELOW FOR YOUR USE:



AVC intra class
100.epr

XDCAM50

CONTAINER

- FORMAT: MXF
- FORMAT PROFILE: OP-1A

VIDEO

- FORMAT: MPEG VIDEO
- FORMAT PROFILE: 4:2:2
- BIT RATE: 50 MBIT/S
- FRAME SIZE: 1920 X 1080
- ASPECT RATIO: 16:9
- FRAME RATE: 25 FPS
- COLOUR BIT DEPTH: 8 BIT
- SCAN TYPE: INTERLACED

AUDIO

- FORMAT: PCM
- SAMPLING RATE: 48KHZ
- BIT DEPTH: 24 BIT (MINIMUM)

Preset Settings "XDCAM 50"



Export Settings

Preset Name: XDCAM 50

Format: MXF OP1a

Based on Preset: XDCAM 50

Comments:

Export Video Export Audio

Summary

Output: 1920x1080 (1.0), 25 fps, Upper, 100 (63% HLG, 51% PQ)
48000 Hz, Stereo, 24 bit

Effects Video Audio Captions Publish

Compression before clipping: None

Loudness Normalization

Loudness Standard: EBU R128

Target Loudness: -23 LUFS

Tolerance: 0.5 LU

Max True Peak Level: -1 dBTP

Configure True Peak Limiter

Look-Ahead Time: 12 ms

Release Time: 200 ms

Write Loudness Report

Specify Report Location

Browse...

Location: Next to Output File

Stream Channel Configuration Source Channels Process

Use Maximum Render Quality Use Previews
 Use Proxies
 Set Start Timecode 00:00:00:00 Render Alpha Channel Only

Time Interpolation: Frame Sampling

OK

Cancel

Export Settings

Preset Name: XDCAM 50

Format: MXF OP1a

Based on Preset: XDCAM 50

Comments:

Export Video Export Audio

Summary

Output: 1920x1080 (1.0), 25 fps, Upper, 100 (63% HLG, 51% PQ)
48000 Hz, Stereo, 24 bit

Effects Video Audio Captions Publish

Video Codec

Video Codec: XDCAMHD 50 PAL (4:2:2)

Basic Video Settings

Width: 1,920

Height: 1,080

Frame Rate: 25

Field Order: Progressive Upper First

Aspect: Square Pixels (1.0)

HDR Graphics White (Nits): 100 (63% HLG, 51% PQ)

Render at Maximum Depth

Enable Smart Rendering codec

Transcode ANC / VBI packets

Export Settings

Preset Name: XDCAM 50

Format: MXF OP1a

Based on Preset: XDCAM 50

Comments:

Export Video Export Audio

Summary

Output: 1920x1080 (1.0), 25 fps, Upper, 100 (63% HLG, 51% PQ)
48000 Hz, Stereo, 24 bit

Effects Video Audio Captions Publish

Audio Codec

Audio Codec: Uncompressed

Basic Audio Settings

Sample Rate: 48000 Hz

Channels: 2 Channel

Sample Size: 16 bit 24 bit

Separate mono tracks

DROPLET FILE BELOW FOR YOUR USE:



XDCAM 50.epr

PRO-RES

CONTAINER

- FORMAT: MXF OR MOV
- FORMAT PROFILE: OP-1A OR QUICKTIME

VIDEO

- FORMAT: AVC
- FORMAT PROFILE: HIGH 4:2:2 INTRA OR 4:2:2 HD
- BIT RATE: 114 MBIT/S
- FRAME SIZE: 1920 X 1080
- ASPECT RATIO: 16:9FRAME RATE: 25 FPS
- COLOUR BIT DEPTH: 10 BIT
- SCAN TYPE: INTERLACED

AUDIO

- FORMAT: PCM
- SAMPLING RATE: 48KHZ
- BIT DEPTH: 16 BIT (MINIMUM)

Export Settings

Preset Name: Pro Res 422 HQ

Format: QuickTime

Based on Preset: Pro Res 422 HQ

Comments:

Export Video Export Audio

Summary

Output: 1920x1080 (1.0), 25 fps, Upper, 100 (63% HLG, 51% PQ), Quality 100, Apple ProRes 422 HQ
Uncompressed, 48000 Hz, Stereo, 16 bit

Effects Video Audio Captions Publish

Loudness Normalization

Loudness Standard: EBU R128

Target Loudness: -23 LUFS

Tolerance: 0.5 LU

Max True Peak Level: -1 dBTP

Configure True Peak Limiter

Look-Ahead Time: 12 ms

Release Time: 200 ms

Write Loudness Report

Specify Report Location

Browse...

Location: Next to Output File

Stream Channel Configuration Source Channels Process

1 Stereo 1 - 2

- Use Maximum Render Quality Use Previews
- Use Proxies
- Set Start Timecode 00:00:00:00 Render Alpha Channel Only

Time Interpolation: Frame Sampling

OK Cancel

Preset Settings "Pro Res 422 HQ" — □ ×

Export Settings

Preset Name: Pro Res 422 HQ

Format: QuickTime

Based on Preset: Custom

Comments:

Export Video Export Audio

Summary

Output: 1920x1080 (1.0), 25 fps, Upper, 100 (63% HLG, 51% PQ), Quality 100, Apple ProRes 422 HQ
Uncompressed, 48000 Hz, Stereo, 16 bit

Effects Video Audio Captions Publish

Video Codec

Video Codec: Apple ProRes 422 HQ

Basic Video Settings Match Source

Quality: 100

Width: 1,920

Height: 1,080 } S

Frame Rate: 25

Field Order: Upper First

Aspect: Square Pixels (1.0)

HDR Graphics White (Nits): 100 (63% HLG, 51% PQ)

Render at Maximum Depth

Depth: 8-bpc 16-bpc

Export Settings

Preset Name: Pro Res 422 HQ

Format: QuickTime

Based on Preset: Custom

Comments:

Export Video Export Audio

Summary

Output: 1920x1080 (1.0), 25 fps, Upper, 100 (63% HLG, 51% PQ), Quality 100, Apple ProRes 422 HQ
Uncompressed, 48000 Hz, Stereo, 16 bit

Effects Video Audio Captions Publish

Audio Codec

Audio Codec: Uncompressed

Basic Audio Settings

Sample Rate: 48000 Hz

Sample Size: 16 bit

Audio Channel Configuration

Stream	Output Channels	Source Channels
1	Stereo	1 - 2

+ -

Channel Layout: Mono Discrete

DROPLET FILE BELOW FOR YOUR USE:



Pro Res 422 HQ.epr

DN-X-HD

CONTAINER

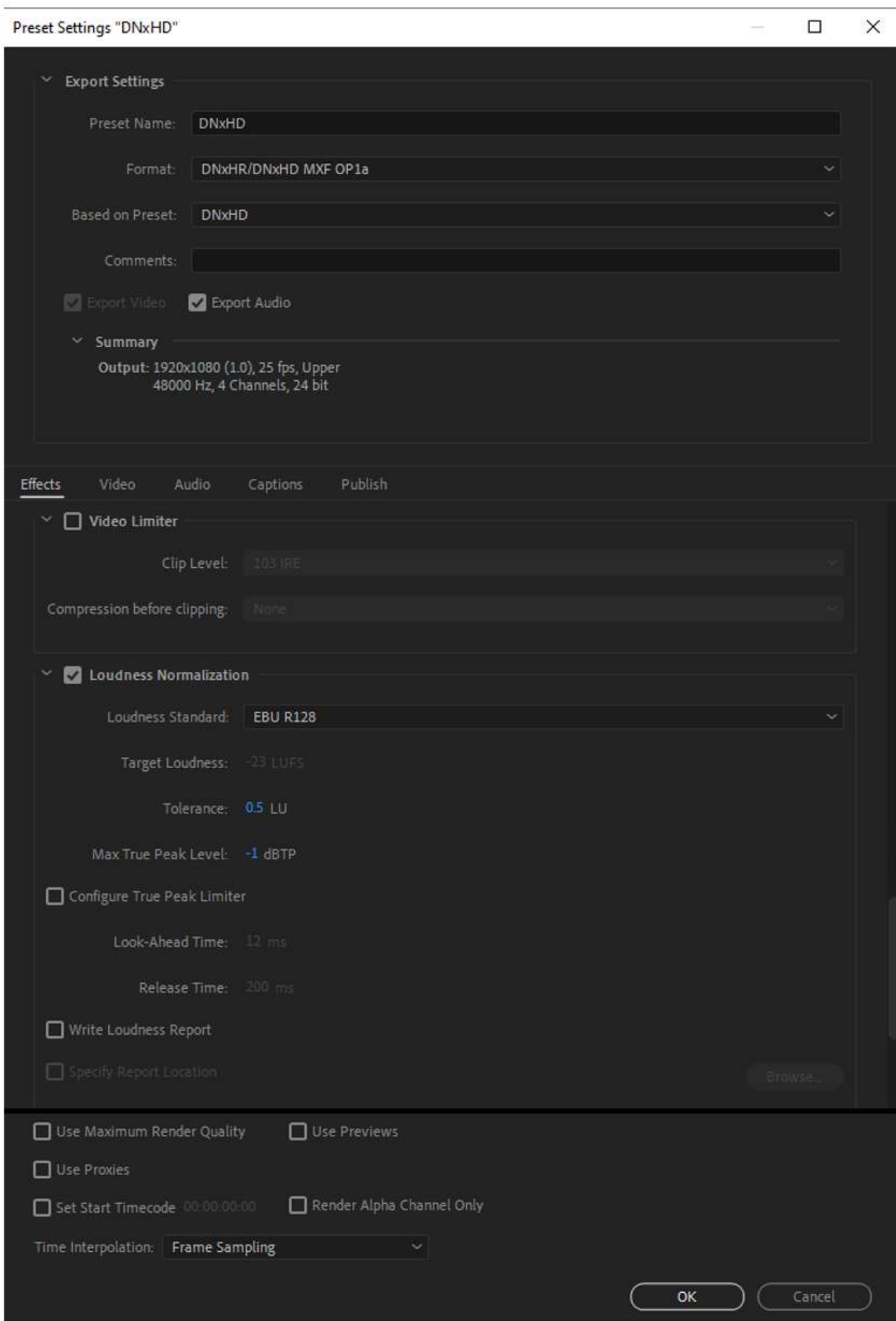
- FORMAT: MXF
- FORMAT PROFILE: OP-1A

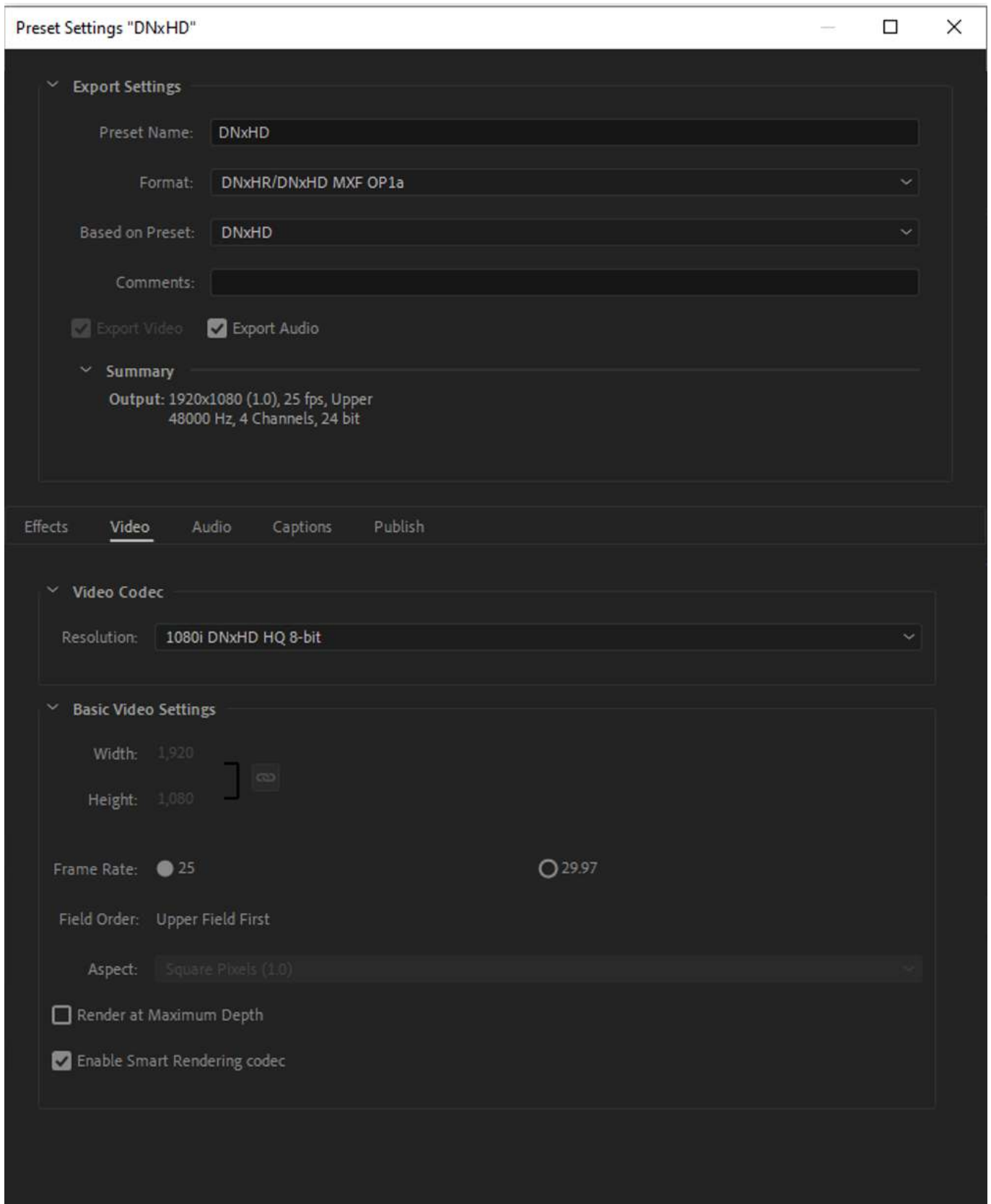
VIDEO

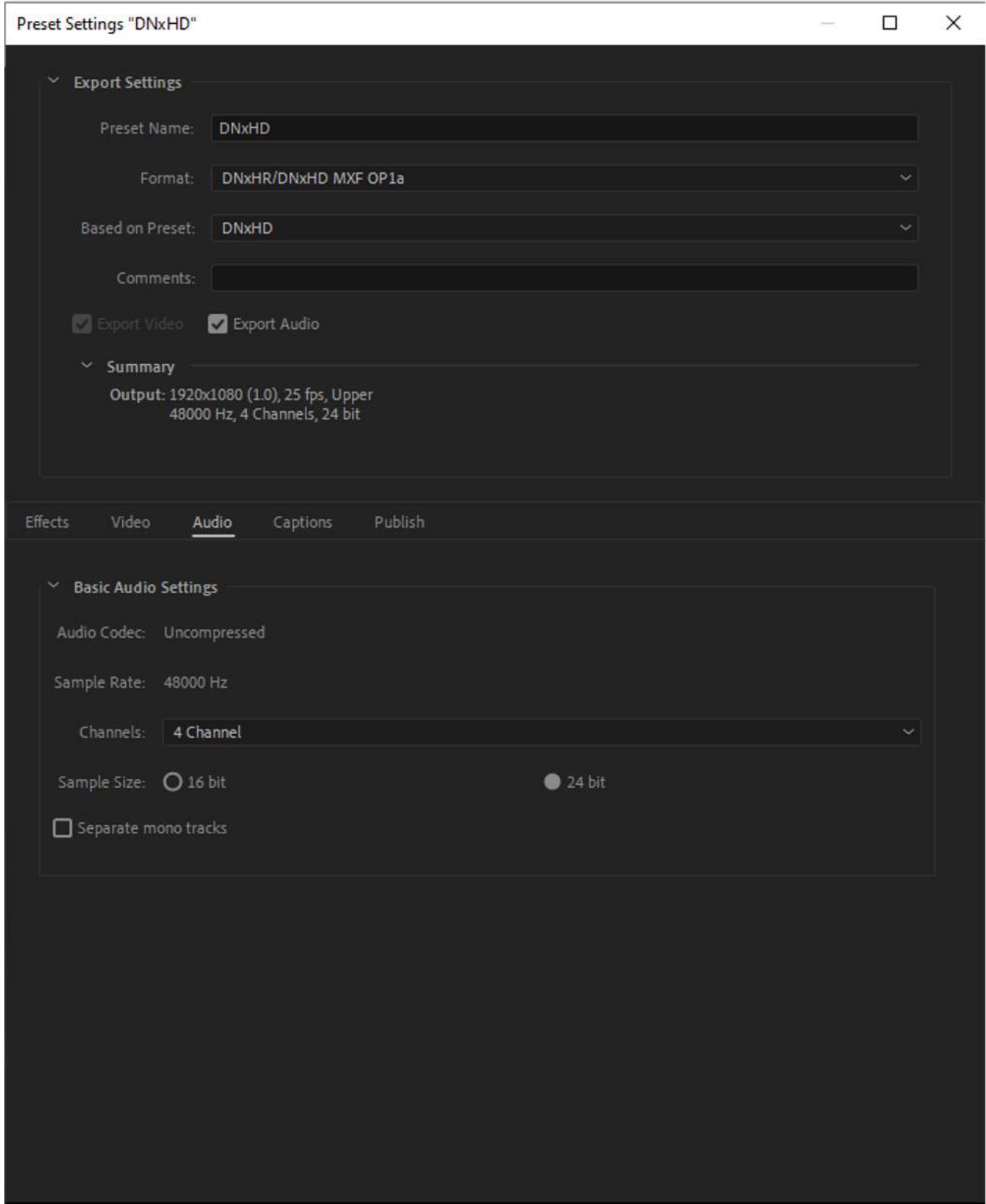
- FORMAT: VC-3
- FORMAT PROFILE: HD
- FRAME SIZE: 1920 X 1080
- ASPECT RATIO: 16:9
- FRAME RATE: 25 FPS
- COLOUR BIT DEPTH: 8 BIT
- SCAN TYPE: INTERLACED

AUDIO

- FORMAT: PCM
- SAMPLING RATE: 48KHZ
- BIT DEPTH: 16 BIT (MINIMUM)







DROPLET FILE BELOW FOR YOUR USE:



DNxHD.epr

TIMELINE OF A COMMERCIAL OR SPONSORSHIP

All Commercial or Sponsorship materials delivered on file must be laid out so that the start of message (SOM) is at timecode 10:00:00:00 as specified in the MXF Material Package timecode track. The SOM at 10:00:00:00 is defined as the first frame of vision that will go to air. Please note that it is usual for sound and vision to be automatically cut to air on transmission, so early vision or sound is not normally required. Vision may fade up from black starting at 10:00:00:00 if desired.

There should be 6 frames of audio silence at the start and end of the item and the duration should not exceed the stated length. At the end of the item there should be a 5 second hold on vision, completely still (No 'Living Freezes' or animations). A single commercial or Sponsorship asset will always be played out from the start of message (SOM) to the end point without interruption. The IN-point (SOM) and DURATION for the continuous playback section must be included with the delivery metadata. As per the diagram below, "DURATION OF ESSENCE does not include the five second hold.

