

NZ HD & SD Delivery Specifications

Broadcast Guidelines

HD File Specification

Quicktime Apple ProRes 422LT or 422HQ 1080i/50

Video:
 Codec: ProRes 422 (LT or HQ)
 Container: MOV
 Profile: LT or HQ
 Chroma Subsample: 4:2:2
 Interlacing: 1080i Upper/Top
 Field
 Frame Size: 1920x1080
 Frame Rate: 25 FPS
 Aspect Ratio: 16:9

Audio:
 Codec: Integer (Little Endian)
 PCM
 Sample Rate: 48kHz
 Sample Size: 16bit
 Channels: Stereo

MXF XDCAMHD 1080i/50

Video:
 Codec: XDCAM 422
 Container: MXF
 Profile: MPEG-2 422P@HL
 Bitrate: 50Mb/s CBR
 Chroma Subsample: 4:2:2
 Interlacing: 1080i Upper/Top
 Field
 GOP Structure: Long GOP
 Frame Size: 1920x1080
 Frame Rate: 25 FPS
 Aspect Ratio: 16:9

Audio:
 Codec: Integer (Big/Little
 Endian) PCM
 Sample Rate: 48kHz
 Sample Size: 16bit
 Channels: Stereo

Quicktime AVID DNxHD 1080i/50

Video:
 Codec: DNxHD120 8-BIT
 Container: MOV
 Interlacing: 1080i Upper/Top
 Field Frame Size: 1920x1080
 Frame Rate: 25 FPS
 Aspect Ratio: 16:9

Audio:
 Codec: Integer (Little Endian)
 PCM
 Sample Rate: 48kHz
 Sample Size: 16bit
 Channels: Stereo

Quicktime DVCPPro100 1080i/50

Video:
 Codec: DVCPPro100
 Container: MOV
 Bitrate: 115Mb/s CBR
 Chroma Subsample: 4:2:2
 Interlacing: 1080i Upper/Top
 Field
 Frame Size: 1440x1080
 Frame Rate: 25 FPS
 Aspect Ratio: 16x9

Audio:
 Codec: PCM
 Sample Rate: 48kHz
 Sample Size: 16bit
 Channels: Stereo

HD Video Level Requirements

TV Format: HDTV
 Aspect Ratio: 16:9
 Title Safe: 16:9

All Video Signals Should Comply With ITU-R BT.709-5
 And Video Signals Should Not Exceed The Specified Limits
 Video Levels Should Not Exceed 700mV, Or Fall Below 0mV
 Gamut Out Of Legal Safe

Following EBU recommendation Rec.103-2000 will allow a
 small tolerance, assuming no more than 1% of the active
 picture is in error.

- Luminance (Y) – 1% and 103% (ie between -7mV and 721mV)
- RGB video levels -5% and 105% (ie between -35mV and 735mV)

HD Audio Level Requirements

ITU-R 1770-3 (OP59)

All commercial soundtracks must be measured using ITU-R
 BS 1770-3 loudness meter to ensure compliance to the
 following delivery specification:

- Reference Level: 1kHz @ -20dBFS
- Integrated Loudness Program: -24 LKFS
- Target Level Tolerance: +/-1 LU
- Maximum True Peak: -2dB

Refer to Free TV OP59 for correct loudness measurement
 and management techniques.

On the digital scale, audio must not exceed -2dB
 as measured on a True Peak Meter.

**New Zealand Stations do not require 12 frames of silence
 head and tail. Does not need 'OP48 Compliant' showing on
 the clapper.**

Adstream Material Deadlines

Monday to Thursday 8pm AEST (10pm NZT)
Friday 5pm AEST (7pm NZT)
p: +64 9 973 4489
e: helpstv@adstream.com

SD File Specifications

Quicktime H.264 625/50

Video:
Codec: AVC
Container: MOV
Profile: Main@L3
Interlacing: Upper/Top Field
Frame Size: 720x576 or 1024x576 (PAL)
Frame Rate: 25 FPS
Aspect Ratio: 16:9

Audio:
Codec: Integer (Little Endian) PCM
Sample Rate: 48kHz
Sample Size: 16bit
Channels: Stereo

Quicktime ProRes 422LT or 422HQ 625/50

Video:
Codec: Apple ProRes 422
Container: MOV
Profile: LT or HQ
Interlacing: Upper/Top Field
Frame Size: 720x576 or 1024x576 (PAL)
Frame Rate: 25 FPS
Aspect Ratio: 16:9

Audio:
Codec: Integer (Little Endian) PCM
Sample Rate: 48kHz
Sample Size: 16bit
Channels: Stereo

MPEG-2 Program Stream 625/50

Video:
Codec: MPEG-2 Program Stream
Container: MPEG-2 Program Stream
Profile: 4:2:2 Profile @MainLevel (422P@ML)
Bitrate: 50Mb/s CBR
Chroma Subsample: 4:2:2
Interlacing: Upper/Top Field
GOP Structure: I Frame Only
Frame Size: 720x576 (608 Inc VBI) or 1024x576 (PAL)
Frame Rate: 25 FPS
Aspect Ratio: 16:9

Audio:
Codec: MPEG1 Layer-2
Sample Rate: 48kHz
Sample Size: 16 bit
Channels: Stereo

SD Video Level Requirements

TV Format: PAL
Aspect Ratio: 16:9 FHA
Title Safe: 16:9

All Video Signals Should Comply With ITU-R BT.601-5
And Video Signals Should Not Exceed The Specified Limits
Video Levels Should Not Exceed 700mV, Or Fall Below 0mV
Gamut Out Of Legal Safe
Following EBU recommendation Rec.103-2000 will allow a
small tolerance, assuming no more that 1% of the active
picture is in error.

- Luminance (Y) -1% and 103 ie between -7mV and 721mV
- RGB video levels -5% and 105% ie between -35mV and 735mV

SD Audio Level Requirements

ITU-R 1770 (OP59)
All commercial soundtracks must be measured using ITU-R
BS 1770-3 loudness meter to ensure compliance to the
following delivery specification:

- Reference Level: 1kHz @ -20dBFS
- Integrated Loudness Program: -24 LKFS
- Target Level Tolerance: +/-1 LU
- Maximum True Peak: -2dBTP

Refer to Free TV OP59 for correct loudness measurement
and management techniques.
On the digital scale, audio must not exceed -2dB
as measured on a True Peak Meter.
New Zealand Stations do not require 12 frames of silence
head and tail. Does not require 'OP48 Compliant' showing
on the clapper

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Clapper Board and Pre & Post Roll Information

	Duration	Example timecode
Clapper Board & Countdown Combined	8"	00:00:00:00 - 00:00:07:24
Black	1" 24 frames	00:00:08:00 - 00:00:09:24
Black w/ 1 st Frame Indicator*	1 frame	- 00:00:09:24
TVC	30"	00:00:10:00 - 00:00:39:24
Black	3"	00:00:40:00 - 00:00:42:24

Clapper Board Information:

A valid clapper board is MANDATORY

The following details below must be included on the clapper board:

- Key Number
- Client
- Product
- Title
- Agency
- Duration
- Aspect Ratio
- Date of Production

Additional Information:

Clapper Board: Must be 8 seconds of still image of ID Board and countdown combined. Must be completely silent with no audio pip followed by 2 frames of black.

The TVC must start at exactly 10 seconds plus 3secs of black at the end of commercial.

Key Number Protocol

A key number should include no more than 12 alphanumeric characters. Dashes, slashes and hyphens are treated as spaces and are ignored. All key numbers must follow the advertiser/duration/unique reference format

e.g. ABC 030 0001 and ABC 015 0002.

This ensures that the advertiser and duration are easily identifiable and that no two dubs from a single advertiser will ever have the same last four digits. The 'R' suffix (e.g. ABC 030 0001R) must only be used to denote a technical amendment. Any change to the actual contents of the commercial requires a new key number.

Local Clearance:

Material must be cleared through Commercial Approval Bureau (CAB) before broadcast. A CAB approval number must be obtained. For further information on Digital Delivery Formats For Commercials, please refer to Commercial Production Standards: http://www.commercialapprovals.co.nz/documents/Commercial_Production_Standards.pdf

**Black w/ 1st Frame Indicator:*

A small white square must be placed in the top right hand corner of the active picture in the black frame immediately before your first active frame of vision.