Nine Entertainment Co. File Delivery Specifications for **Nine Commissioned Original Australian Adult Drama:**

The programme shall be supplied in High Definition (HD), as the TEXTED version, with any Textless material at the tail of the programme, 1 minute after end credits. (See below for examples of Texted & Textless)

The programme shall be supplied via an agreed file delivery mechanism, or on a physical hard drive. Hard drive to be NTFS formatted, and USB 3.0 speed is preferable. A USB-powered drive is also preferred. The hard drive must contain external labelling of contents.

VIDEO

The HD file format shall be the **1080/50i ProRes422 (HQ)** 220 Mbit/sec codec, *with up to* 16 PCM audio tracks, supplied as a .mov file. The 16:9 Aspect Ratio image shall occupy full screen height, and use interlaced scan, Upper Field First, even if the production format is 25p.

The Product will be of the highest quality suitable for HDTV television broadcast without further processing of picture or sound as to which the Licensee will be the sole judge.

High Definition is a 1080 active line, 1920 pixel wide, 25 frames per second, 2:1 interlaced signal produced in agreement with the specifications of ITU-R BT.709.

Any originated 24 frame (23.98p) product shall be converted to 25 (50i) by means of a speed change, not a standards conversion using frame interpolation or motion compensation.

Any native 59.94i product shall be converted to 50i by a Ph.C or motion vector compensated standards conversion.

If the 59.94i material essentially contains an embedded 23.98 fps programme via 3:2 pull-down, then that 23.98 frame product must be first extracted from the 59.94i master via 3:2 cadence detection & removal. Then the resulting 23.98 fps programme can be speed changed to 25 (50i) in the normal required method.

There shall be two HD versions of the programme supplied:
1. Australian domestic/breaks version.
2. Seamless version, suitable for International or VOD purposes.

In addition to the HD versions of the programme, Nine may request UHDTV (4K) versions, if available. Format to be mutually agreed upon. See FreeTV OP73 for more details on UHD. http://www.freetv.com.au/

AUDIO

All audio tracks shall be present as individual mono audio essences, not as stereo pairs.

The audio configuration shall be a Stereo Full Mix on tracks 1 & 2 ($L_t R_t$ or $L_o R_o$), Stereo Music And Effects (M+E) on tracks 3 & 4 and a 5.1 Surround Sound Full Mix on tracks 5 to 10 inclusive. *If available*, 5.1 M+E on tracks 11 to 16 is desirable.

Any supplied 5.1 audio shall be mixed in such a way that it will create an acceptable downmix to 2.0 stereo L_t and R_t, if required, using industry standard downmix parameters.

- The audio track layout for this programme configuration shall be:

    1. Stereo Left Full Mix
    2. Stereo Right Full Mix

    3. M+E Stereo Left
    4. M+E Stereo Right

    5. 5.1 Front Left
    6. 5.1 Front Right
    7. 5.1 Centre
    8. 5.1 LFE*
    9. 5.1 Left Surround
    10. 5.1 Right Surround

    11. M+E 5.1 Front Left
    12. M+E 5.1 Front Right
    13. M+E 5.1 Centre
    14. M+E 5.1 LFE*
    15. M+E 5.1 Left Surround
    16. M+E 5.1 Right Surround

    Note on LFE use/misuse:
    The LFE Channel should be used as intended; as an occasional low frequency special effects channel only, and not simply for bass that is filtered off from the main channels.

- Audio Loudness on the Stereo soundtrack shall measure -24LKFS. True Peak (TP) not to exceed -2dB TP.
- Audio Loudness on the 5.1 soundtrack shall measure -24LKFS. True Peak (TP) not to exceed -2dB TP.

Compliance to -24LKFS using only the *dialog* component of the mix is acceptable and encouraged, using the 'Dialog Intelligence' feature of many loudness correction devices.

To this aim, a suitable BS.1770-4 compliant loudness meter will be used as the measuring instrument. See OP59 for more detail.

Correct audio sync is to be maintained at all times with the video.

An ID/Clapper Board should be present at the head of the file for identification purposes, with the title of the programme/episode number, *exactly as it appears on-screen*. In addition, the Clapper Board shall include:

- Duration of Programme.
- Audio Status and Track Layout

Required Layout/Timecode:
00:58:00:00 – Start of file: [Black Video / Mute Audio]
00:58:30:00 – Colour Bars (75%) & 1 kHz Audio Tone (All relevant tracks which contain audio, -20dB)
00:59:30:00 – ID/Clapper Board
00:59:50:00 – Countdown
00:59:58:00 – Black
01:00:00:00 – Start Of Programme

If programme is already compiled into segments (ie Domestic Version), then the head of each segment shall have a 10 second countdown. Each segment shall start on an even timecode number (ie Segment two might start at T/C 01:09:00:00). There should be a minimum 20 seconds of black between segments, not including countdown.

Compiled programmes are required to contain a 3-5 second texted playoff, which can consist of a still or moving graphic, listing the title of the programme, or title & episode of the programme if appropriate.

'C' classified programmes must also contain 5 sec. playons at the start of segments as well as playoffs.

16:9 programmes should preferably be 16:9 graphic/action safe, but 14:9 graphic/action safe, or 4:3 graphic/action safe is also acceptable. Below is the 16:9 HD graphic/action safe area chart.

16:9 Graphic / Action Safe Area Chart:
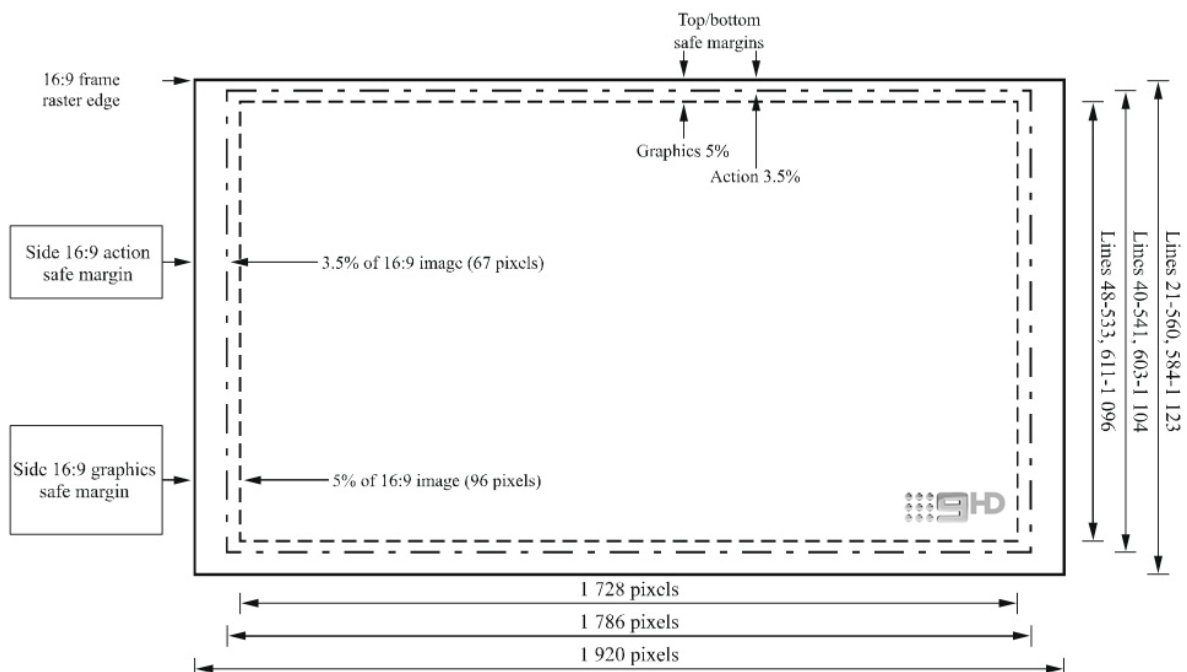
- Please note the position of the 9 HD Watermark in the lower right corner of image, and avoid placing text supers in that position.

- At Nine's discretion, an .mxf encoded version of the programme may be requested, to be supplied *in addition to* the ProRes422 version, to facilitate ease and expediency when content is delivered to the National Playout Centre (NPC). [See separate .mxf XD-CAM 422 HD 1080/50i delivery specifications.]
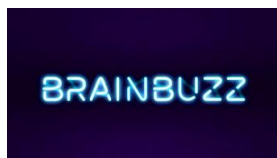
Texted/Textless example frames:
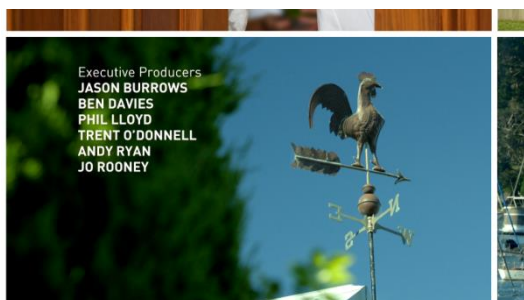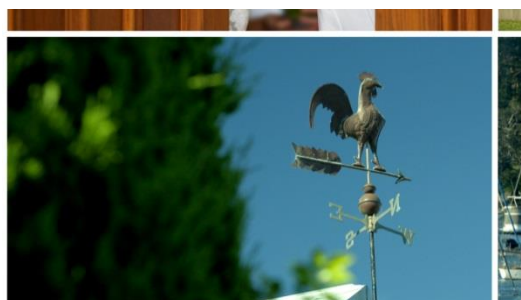
TEXTED   **TEXTLESS**

Texted Playoff examples:

Animated Texted Playoff example: