

1. SCOPE

This Operational Practice provides a recommendation for encoding commercial material onto DVDs for distribution to Australian broadcasters for evaluation and assessment; not for broadcast. It provides specifications for coding, video, audio and subtitles display and distribution details. It specifies the DVD-Video application layer.

2. REFERENCES

AS/NZS 13818.1:2002 *Information technology – Generic coding of moving pictures and associated audio information. Part 1: Systems*

AS/NZS 13818.2:2002 *Information technology – Generic coding of moving pictures and associated audio information. Part 2: Video*

AS/NZS 13818.3:2002 *Information technology – Generic coding of moving pictures and associated audio information. Part 3: Audio*

DVD Specifications for Read-Only Disc, Part 2: File System Specifications Ver 1.05

DVD Specifications for Read-Only Disc, Part 3: Video Specifications Ver 1.13

DVD Specifications for Read-Only Disc, Part 4: Audio Specifications Ver 1.21

Recommendation ITU-R BT.601 *Studio encoding parameters of digital television for standard 4:3 and wide-screen 16:9 aspect ratios*

AES3-2003 *AES standard for digital audio — Digital input-output interfacing — Serial transmission format for two-channel linearly represented digital audio data*

3. DEFINITIONS

3.1 Source

The organisation responsible for delivering the files to the destination.

3.2 Destination

The broadcaster or organisation receiving the files.

4. DISTRIBUTION MEDIUM

4.1 Distribution Method

DVDs shall be transported in a suitable purpose built case for physical protection with discs and cases clearly labelled by suitable means. The distribution method used for the delivery of DVDs shall be agreed by all parties (Source and Destination).

4.2 Number of Commercials Delivered on DVD

The maximum number of commercials delivered on a single unit should be agreed by all parties (Source and Destination).

4.3 Indexing

If multiple commercials are contained on a single DVD then a menu system shall be used to allow simple user navigation to each commercial. The menu shall indicate each commercial contained on the DVD by use of a suitable clear button per commercial which shall also indicate the Key No of the commercial.

5. CONTENTS OF EACH ITEM

Prior to the commercial that is to be assessed, there shall be a minimum of 2 seconds of visual identification. Legibility of the visual identification is most important to end users. The selected font size shall be consistent with elements of 30 TV lines height in a 576 active line raster to produce a full screen display of the visual identification. Full screen is such that the image is within the safe graphic area of the format in question. Should the identification be colourised there shall be a desirable level of separation between background and text information.

In a typical case, the identification should contain information on:-

- (a) Client
- (b) Product
- (c) Title
- (d) Key Number
- (e) Duration
- (f) Classification
- (g) Audio format
- (h) Aspect ratio / Protected state of product
- (i) Closed captions
- (j) Agency
- (k) Production Company
- (l) Date

Accurate identification of first frame of active video on commercials should be provided. This shall be by the inclusion of a white marker on colour black in the 2 second interval following the visual identification signal, top right of picture, outside picture safe on the frame immediately before first frame of active video. The white marker should be a minimum picture height of 12 lines and minimum width of 18 pixels.

6. VIDEO

The following specifications are required for delivery of video material to broadcasters for evaluation and assessment:

Resolution	720 x 576
Aspect ratio	16:9
Frame rate	50 field/s, 25 frame/s

For legacy material an image aspect ratio of 4:3 "pillar boxed" may be accepted.

All these specifications should be identified in the file header. If legacy 4:3 material is used that shall be identified in the file header.

7. AUDIO

The following specifications are recommended for delivery of program and commercial soundtracks to broadcasters for evaluation and assessment:

Format	PCM audio (not including Dolby E or AC-3)
Sampling rate	48kHz
Stereo	Lt Rt
Where Dolby Digital (DD) derived	mixed down Rt Lt

For Stereo recordings

Track 1 shall carry the left channel
Track 2 shall carry the right channel

8. CODING

The DVD shall be a DVD-5; a single sided, single layer 12 cm DVD-R with MPEG-2 video and audio coded in DVD-Video mode.

The combined video and audio bitrate shall be in the range 3.3 Mbps to 9.8 Mbps, which covers the common modes in software encoders and DVD recorders which are known by names such as *Long Play*, *Standard Play* or *High Quality*. However, the preferred mode is *Standard Play* which will use a bitrate of approximately 4 ~ 5 Mbps.

9. CLOSED CAPTIONING

Closed captioning (where required) Teletext "burnt into video" using the intended broadcast position.

Variation to closed captioning display shall be by agreement with all parties.

10. RECOMMENDED TEXT SIZE

Considering that both commercial product and programs are being originated in the widescreen 16:9 format.

Considering that it is desirable that text be readable under normal display and viewing conditions and that additionally in certain circumstances there may be a legal requirement for the text to be readable.

Considering that in certain transmission modes and also in certain reception modes the effective height of the image is reduced.

- (a) For the transmission of a 16:9 original in the 4:3 analogue service, the broadcaster may letterbox the product, thus reducing the effective height of the image.
- (b) In the reception of the digital 16:9 service the viewers Set Top Box [receiver] may letterbox the product for a 4:3 display, thus reducing the effective height of the image.

The following is recommended:

For standard definition images, the minimum height of the text lower case elements be 15 pixels [15 lines] in a 576 line raster.

N.B. If the recommendation above is met, however the text is unreadable on screen, Commercials Advice may seek another version of the commercial product with higher resolution through increased bit rate.