

Guide to Cinema Captioning

This *Guide to Cinema Captioning* should be read in conjunction with the *Screen Australia Cinema and DVD Captions Budgeting Guide* spreadsheet.

All feature films approved by the former FFC Board from 1 July 2007 and the Screen Australia Board from 1 July 2008 require captioning for cinema and DVD. This is to provide access for the hearing impaired, for both a cinema-going experience and at home on DVD. Internationally this is a widely accepted practice.

Please note, as of 1 January 2009, all feature film budgets submitted to Screen Australia must include the costs for captioning. It is now the production company's responsibility to organise and pay for captioning.

The process of captioning Australian films opens up the cinema experience to those who were once unable to experience it, thus encouraging growth in the audience of Australian films. Some argue that this is currently an untapped market with the potential of increasing revenue for the film.

Background

The mandatory captioning of films has been driven by the Human Rights and Equal Opportunity Commission (HREOC), to provide access for the hearing impaired.

The UK has pioneered this change in attitude, making films accessible to the hearing impaired through funding and marketing programs to assist cinemas in catering for this specific audience. The UK Film Council (UKFC) also requires that films be captioned and audio described. The UK utilises the more traditional method of creating a specially captioned 35mm print (also called a 'hard' captioned print) in which the captions are laser etched or overlaid onto the film (UKFC).

Captioning is important to Australia and the production community as almost 4 million Australians are hearing impaired, which is almost one fifth of the population.

Captions

Captioning is the practice of translating a program's audio (including sound effects and music) into text to aid the hearing impaired. The text is commonly displayed at the bottom of the screen.

There are several types of captioning – the most common are open captioning and closed captioning.

- **Open captioning** is characterised by the display of text on screen for all viewers (cinema).
- **Closed captioning** is a system where captions are activated by the individual viewer (DVD or via a set-top box).

Feature films that are a co-production or have a pay TV pre-sale to networks may already be required to deliver either subtitles on the delivery master or a separate subtitled file on disk. This can be used for closed captioning.

Access

In recent years methods have been created in order to enhance the enjoyment of the cinema experience for the hearing impaired. These systems are known as 'access'. The only current system available in Australia is the **DTS Access™** system, an open captioned model.

Dolby had created a system called ScreenTalk, however this is no longer produced for Australia. The existing units, in cinemas, will continue to operate and be supported by Dolby.

The **DTS Access™** system in Australia is a modified version where a 'soft' overlay of captions (CD ROM) are projected onto the screen with a secondary projector. This method offers flexibility as it allows the exhibitor to use a standard release print and project the captions for the 'open caption' sessions in addition to their regular programming.

DTS Digital Cinema technology licensing

DTS Digital Cinema offers a range of licensing and services for filmmakers and distributors including **DTS Digital Sound®** and **DTS Access™** (captions and audio description). These services are separate; therefore, the technology for Digital Sound or for Access may be licensed individually or together in a package. If the package option is chosen, Sound and Access will share the same serial number.

DTS Digital Sound®

The **DTS Digital Sound®** format for motion pictures is a digital format in which the digital soundtrack is delivered on a CD ROM rather than encoded onto the film print.

DTS Access™

DTS Digital Cinema Access™ captions and audio description use the DTS timecode track for synchronisation. Captions and audio description (or foreign language subtitles) are timed to the DTS timecode on the print and delivered to the cinema on CD ROM.

- To achieve this, a hard drive/processor is installed in the projection room of the cinema along with a data projector (CD ROM), called the DTS–CSS (Cinema Subtitling System), for beaming the captions onto the cinema screen. The information is held on a disk which is loaded onto the hard drive for DTS. As this system may not be available in all cinemas producers should check with their distributors/exhibitors on their locations.
- DTS also offers another system called the 'Rear Window Captioning System'. This enables a patron to view captions from a panel attached to their seat.

In order to ensure the ability to utilise DTS Digital Cinema technology – Sound or Access – a DTS timecode should be included on the prints.

Captioning Process for Cinema

1. DTS serial number

- The producer needs to request a serial number from DTS Digital Cinema (postproduction@dtsdcinema.com) for an Access License. DTS will assign a unique serial number to the film, which will then be used when shooting the DTS timecode track. If the package option is chosen, Sound and Access will share the same serial number.
- The request e-mail should include: the title, the name and contact details of the production company, the optical sound facility and their contact details, and either a request to purchase a DTS Access license. Please cc all parties on this request email.

Allow up to 2 working days to receive the serial number.

2. Optical sound facility

- DTS will advise the optical sound facility, producer and Screen Australia of the serial number for the film, so that it incorporates the DTS timecode into the process of shooting the optical track sound negative.

3. Captioning agency

- DTS require the captioning file be provided from the captioning agency with the timecode in and out points for each reel.
- Once the production is ready to be captioned, the necessary work materials (Log Sheet, **Guide Image** and final script) must be provided to the captioning agency.

Log Sheet

- The Log should record the first and last picture frame in and out of each reel/spool with timecode listed as:
Reel 1 01:00:02:00
Reel 2 02:00:02:00 etc
- Each licensed captioning agency will have a preference in regard to format or delivery of the Guide Image (ie Digital Betacam, DVD, FTP, MPEG, etc). Check with your preferred agency for this information.
- The captioning agency creates the caption file and/or audio description and delivers it directly to DTS.
- Screen Australia recommends that a key creative (ie producer or director) view the captions with the caption agency before the film is sent to DTS. This reduces the risk of mistakes being made, delays in the process, and ensures the correctness of both interpretation and style.

**Minimum average time to complete the captioning is between
5 to 7 working days for 100 minutes of screen time.**

The Guide Image – specifications to create captions

- The Guide Image must have the original leader and audio sync pop at the head.
- The Guide Image must be identical in length to the film so that one second of film equals one second of video. Therefore when converting to PAL this is achieved by making a telecine conversion from 24 frames per second of film to 25 frames per second of video (ie a 24fps telecine transfer).
- Transfer to any image medium must be at 24 frames per second so that the **content is frame accurate and correct length**. If done in reel length then the caption agency will recognise that the supplied material is correct.
- DTS require the exact first frame of image (DTS call it first frame of action or FFOA), as there is a requirement of 2 seconds of timecode to lock prior to the first frame of image in order to lock the two systems up. In other words, this is 2 seconds before the first frame of image and corresponds to the 2 pip on soundtracks. There is no need to supply the last frame of image as DTS assumes that the supplied file is the correct length.
- Before creating the Guide Image, please liaise and confirm that the post facility can transfer to the caption agency requirements (MPEG, DVD etc).
- As Australia-wide cinema captioning is a new process, it is advisable that the first productions work closely with the agency. As a result, you may need to supply a spool–spool transfer of the completed answer print. **Both picture and audio require transfer (to ensure accurate sync)**.
- The final answer print must be approved by the distributor/sales agent prior to the captions being locked off. Any changes hereafter will require a new caption file at the producer's cost.

Proofreading

- Producers can request the caption agency to provide a text file of the captions to check interpretation before the file is sent to DTS. Please be aware that this will extend the turnaround time for the return of DTS encoded captions.

4. Encoding

- DTS encodes the file supplied by the captioning agency.

Typical turnaround time is between 2 to 3 days.
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Optical sound facility

- DTS sends the encoded file to the optical sound facility for the creation of the master disc.

5. Quality check

- The lab (Atlab or Park Road) undertakes a quality control check (QC) where the sync is inspected against the audio. It is essential for the producer/content owner (post supervisor) to be in attendance to verify the accuracy of the captioning content.

6. Distribution

- Once DTS is advised of the master disc approval, DTS replicates and delivers discs to the Motion Picture Distributors Association of Australia (MPDAA) for direct delivery to the equipped cinemas for release.
- Although not mandatory, it is advisable that the DTS logo is included on the credits of the feature.

7. Screen Australia invoice process

(Applicable only to projects funded by Screen Australia prior to 1 January 2009)

- Screen Australia's project manager is cc'd on emails regarding the DTS serial number request.
- On receipt of the serial number, Screen Australia will send DTS a purchase order and will be invoiced directly for the cost.
- Captioning agency to invoice Screen Australia for creating files if it is not already mentioned as a deliverable. Please check with your distribution guarantee delivery requirements. This may need to be discussed with your Screen Australia project manager.
- Laboratory to invoice Screen Australia for quality control screening.

Captioning Process for DVD

1. Captioning agency

- Once the production is ready to be captioned, the necessary work materials (**Guide Image** and final script) must be provided to the captioning agency.
- Each licensed captioning agency will have a preference in regard to format or delivery of the Guide Image (ie Digital Betacam, DVD, FTP etc). Check with your preferred agency for this information.
- There are several types of authoring systems used in DVD production. The captioning agency needs to be notified of the system your preferred authoring house uses. This determines how the captions are created and what type of file is delivered.
- DVD distributors generally have a unique style guide for their captions. The respective style guide of your preferred distributor should be made known to the captioning agency.
- The captioning agency creates the caption file and/or audio description file. This file(s) will be forwarded to your DVD authoring house.

**Minimum average time to complete the captioning is between
5 to 7 working days for 100 minutes of screen time.**

The Guide Image

- The Guide Image for DVD must be identical to the length of the PAL video in 25 frames per second, therefore a 25 frames per second telecine transfer is required. Check with your preferred agency for this information.

2. DVD author house

- The DVD authoring house receives the captioned file and/or audio description to create the DVD version of the film, including captions.

3. Distribution

- The producer and distributor receive the final product to distribute.

Contacts

Datasat Digital (formerly DTS) USA

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Authorised DTS film laboratories/optical sound facilities

Australia

Deluxe (formally Atlab): www.bydeluxe.com

Ph: (02) 9429 6500

Tony Oldham tonyoldham@bydeluxe.com

New Zealand

Park Road Post: www.parkroadpost.co.nz

Ph: + 64 4 380 7800

Peter Amies parkroad@parkroad.co.nz

Authorised DTS captioning agencies

Australia

Captioning and Subtitling International: www.captioningandsubtitling.com

Ph: (02) 9219 9100

Michelle Kwan michelle.kwan@captioningandsubtitling.com.au

The Captioning Studio: www.captioningstudio.com.au

Ph: (02) 6255 6544 or (08) 8463 1639

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Captioning agency image delivery requirements

All deliverables to a captioning agency must be in accordance with the 'Captioning agency' sections in the *Captioning Process for Cinema* and *DVD* pages.

Captioning and Subtitling International (CSI)

- Preferred image format is a low resolution mpeg1 file (approx 384x288) with burnt-in-timecode (BITC) at the top of the frame matching the DTS timecode.

Acceptable alternative formats:

- .avi
- Digital Betacam
- DVD
- Quicktime (mov)
- Windows Media Video

All images should be encoded with constant bit rate – usually around 600Kbps and must have a video stream, an audio stream and ideally an encoded timecode (usually VITC or LTC).

*Preferred script format is a Word document via email.

The Captioning Studio

The Captioning Studio require delivery of:

- Windows Media Video file or an MPEG 1 file or a DVD with in-vision timecode matching the DTS timecode.

* Script in an electronic format.

DVDTech

DVDTech require delivery of:

- MPEG1 or Windows Media Video files at 24fps of each spool, with in-vision timecode matching the DTS timecode burnt in to the top right-hand corner as follows:
Reel 1 01:00:02:00
Reel 2 02:00:02:00
Reel 3 03:00:02:00
Reel 4 04:00:02:00
Reel 5 05:00:02:00
- If this is unavailable DVDTech can accept a Digital Betacam with a timecode that matches the DTS timecode.

* Electronic script if available.

Red Bee Media Australia

- Preferred image format is a low res MPEG 1 file but will accept:
 - Digital Betacam
 - MPEG 2
 - QuickTime
 - Betacam SP
 - DVD
 - DV

* Preferred script format is via email.

The Substation

- Digital Betacam transfer of consecutive film reels with burnt in timecode to match the reels:
 - For film delivery the Digital Betacam must run at 25fps with 24fps burnt in timecode.
 - For DVD/PAL the Digital Betacam must run at 25fps burnt in timecode.

* Electronic script if available.

POST-PRODUCTION SCRIPTS

Productions will need to provide the caption agency with the song title and artist information. This could be included in the post-production script within the 'shot description' column and should outline where the songs are used in the film. This information should be provided to the person generating the post-production script.

Captioning agencies would also prefer to receive the post-production script as an Excel or Word document rather than a PDF.