Technical Delivery Specifications
August 2019

Commercial Delivery Information for SBS

Before a commercial (aka TVC, Dub) can be broadcast on SBS we require the below from the client

- Key Number of commercial (identifying name for traffic system and reporting)
- CAD approval number (8 Digit code assigned by Free TV for classification of a commercial). This indicates at what times/programs we can broadcast the commercial.
- The file (aka Material) sent by the appropriate deadlines. Please refer to the table below.

Material Deadlines

Material Deadlines			
Activity Starting:	**Any day in the following week commencing**	**Sunday & Monday**	**Tuesday to Saturday**
Material Instructions	Wednesday 1700	Wednesday 1700	Wednesday 1700
CAD Approval		Thursday 1700	COB two days prior
Material booked for delivery		Thursday 1700	COB two days prior

This does not include revisions or amendments which need to be on-hand & CAD approved two hours before TX.

Any extensions to the material delivery deadlines above must be approved by either the Sales Operations Manager or Sales Operations Team Leader.

Any material to TX in logs that are being printed will be removed from the schedule if the Dub is not on hand or booked for delivery by 3pm the day of printing. And under no circumstances will logs be printed with any key number that has not yet received a CAD rating. These TVCs will be removed regardless of delivery status.

Commercial Delivery Methods

Files can only be sent to SBS electronically via two satellite services:
  ➢ Adstream - https://www.adstream.com
  ➢ Peach/IMD - https://www.peachvideo.com/en-gb/

Each service provider will in turn pass on the files to our server for broadcast. We cannot accept delivery of files through file transfers or hard copies.

For each service provider please select the following destination when placing a delivery order:
  ➢ Adstream – SBS National
  ➢ IMD Cloud – SBS National HD

Commercial Technical Specifications - Adstream

Aspect Ratio

16:9

HD specifications for MXF files

Video Specifications
- ➢ 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

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

HD specifications for Quicktime files

Video Specifications
- ➢ 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

Audio Specifications
- ➢ Codec: Integer (Little Endian) 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 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)

HD Audio Level Requirements

- ITU-R 1770-3 (OP48/59)

- 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.

- A TVC must contain 12 frames of complete silence, ie no voiceover, active dialogue, music, effects or atmos, at the beginning and end of a commercial.

- Example of a 30 Second TVC:
    - Audio starts - 00:00:10:13
    - Audio ends - 00:00:39:13

Commercial Technical Specifications – Peach/IMD

HD specifications for MXF files

Video Specifications
- Codec: XDCAM 422
- Container: MXF (OP1a)
- Profile: 422P@HighLevel
- Bitrate: 50 Mbps
- Chroma Subsample: 4:2:2
- Interlacing: Upper Field First
- GOP Structure: 1080/50i: 12 (M=3, N=12)
- 1080/60i: 15 (M=3, N=15)
- Frame Size: 1920x1080
- Frame Rate: 1080/50i: 25 fps
- 1080/60i: 29.97 fps

Audio Specifications
- Codec: PCM (Little Endian)
- Sample Rate: 48kHz
- Sample Size: 16bit

HD specifications for Quicktime files

Video Specifications
- Codec: XDCAM HD422
- Container: MOV (QuickTime)
- Profile: 422P@HighLevel
- Chroma Subsample: 4:2:2
- Interlacing: Upper Field First
- Frame Size: 1920x1080
- Frame Rate: 1080/50i: 25 fps
- 1080/60i: 29.97 fps

Audio Specifications
- Codec: PCM (Little Endian)
- Sample Rate: 48kHz
- Sample Size: 16bit

HD Video Level Requirements

➢ Levels must be in accordance with ITU BT.709 for HD content, and EBU R103-2000 recommendations:

➢ Luminence = Level 16-235 (not RGB 0-255 level), equivalent to 0% - 100% or 0mV - 700mV.

➢ Chroma = Level 16-240, equivalent to maximum 100% RGB.

➢ All content should be upper and first field dominant throughout and must be free of encoding artefacts, dropout, glitches, blocking, interlace issues or excessive aliasing and considered broadcast quality throughout.

HD Audio Level Requirements

➢ The Audio True Peak level must not exceed -1dBTP for both Loudness (-24LKFS) and Peak (-10dBFS) mixes.
➢ Refer to Free TV OP59 for correct loudness measurement and management techniques.

➢ OP-59 (-24 LKFS ±1 LU) max. True Peak: -2dBTP

➢ A TVC must contain 12 frames of complete silence, ie no voiceover, active dialogue, music, effects or atmos, at the beginning and end of a commercial.

➢ Example of a 30 Second TVC:
  - Audio starts - 00:00:10:13
  - Audio ends - 00:00:39:13