LINEAR TV
TECHNICAL SPECIFICATIONS

2022

INDEX

WARNER BROS.
DISCOVERY

INFO & DEADLINE

It is necessary to provide, with an advance of 4 full working days, the following information by email to : airtimesales@discovery.com

- Customer
- Brand
- Copy Reference
- Trasmission period
- Total number of copies version
- Effective lenghts
- Channels involved

DELIVERY SPECIFICATIONS

The materials must be delivered in 16: 9 FHA [Full Height Anamorphic - ITU - R BT.601-6] anamorphic format in HD. Before transmission Warner Bros. Discovery reviews the videos, in order to verify their consistency with internal guidelines and with the contractual conditions signed.

Any changes on materials already delivered must always be carried out by the Customer and / or Agency supplying the material.

Warner Bros. Discovery is committed to maintaining the absolute confidentiality of the information and materials acquired, treating and preserving them as its own assets and protecting its integrity.

If further information is needed , please contact : airtimesales@discovery.com

WARNER BROS. DISCOVERY

TERMS OF DELIVERY

To send the materials, use one of the following digital delivery providers and select the UNIQUE DESTINATION **"WARNER BROS. DISCOVERY "**.

adstream

Adstream Italia
Centro direzionale milano due
Palazzo Bernini via Fratelli Cervi
20090 Segrate (MI)

Tel : +39023045810
email: traffic.it@adstream.com

Peach

Peach IMD Cloud
Via Copernico, 38
20125 Milano

Tel: +39 02 94750316
email: support.it@peachvideo.com

WARNER BROS. DISCOVERY

SAFE AREA

The figures below show the area of the television image in which the most important parts of the image must fall, and the useful area for titles

Discovery channel's bugs are located in the Top-Left of the screen for the whole commercial breaks duration.
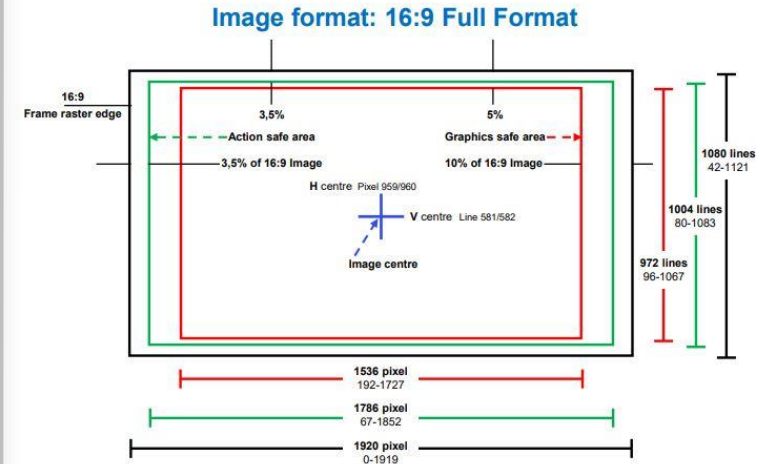The tag "pubblicità" is located in the Bottom/Top-Right corner..

Please ensure the that elements aren't overlapped with channels logos.

For your test you can find the .tga files on our website at the following link
https://www.discovery-italia.it/discovery-media/

WARNER BROS. DISCOVERY

Adstream File Delivery Specification For Italy

To maintain a consistently high quality product Adstream requires all material for distribution in this region to be supplied to the following HD specifications.

HD File Specification

★ Quicktime ProRes 422HQ 1080/50

Video:
Codec : **Apple Quicktime ProRes 422 (HQ)**
Container : **MOV**
Profile : **HQ**
Chroma Subsample : **4:2:2**
Interlacing : **Upper/Top Field First**
Frame Size : **1920x1080**
Frame Rate : **25 FPS**
Aspect Ratio : **16:9**

Audio:
Codec : **Integer (Little Endian) PCM**
Sample Rate : **48kHz**
Sample Size : **24bit**
Canali : **Stereo**

★ Quicktime Wrapped Avid DNxHD 120/185 1080/50

Video:
Codec : **8bit DNxHD**
Container : **MOV**
Bitrate : **120Mb/s o 185Mb/s**
Chroma Subsample : **4:2:2**
Interlacing : **Upper/Top Field First**
Frame Size : **1920x1080**
Frame Rate : **25 FPS**
Aspect Ratio : **16:9**

Audio:
Codec : **PCM**
Sample Rate : **48kHz**
Sample Size : **24bit**
Canali : **Stereo**

MPEG-2 Transport Stream 1080/50

Video:
Codec : **MPEG-2 Transport Stream**
Container : **MPEG-2 Transport Stream**
Profile: **4:2:2 Profile @MainLevel (422P@ML)**
Bitrate : **100Mb/s CBR**
Chroma Subsample : **4:2:2**
Interlacing : **Upper/Top Field First**
GOP Structure : **I Frame Only**
Frame Size : **1920x1080**
Frame Rate : **25 FPS**
Aspect Ratio : **16:9**

Audio:
Codec : **PCM**
Sample Rate : **48kHz**
Sample Size : **24bit**
Canali : **Stereo**

HD Video Level Requirements

TV Format : **HDTV**
Aspect Ratio : **16:9**
Title Safe : **16:9 – EBU R.95-1**

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

Out of gamut tolerance.

Whilst Adstream and the Broadcasters will reject illegal video levels they understand there may be instances where it is difficult to completely avoid, and 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

AGCOM 219/09/CSP

The loudness level of the program material must be in agreement with the AGCOM 219/09/CSP directive, including the following delivery specifications :

Reference Level : 1kHz@ -18dBFS
Integrated Loudness Program : -24 LUFS
Weighting Scale : As per ITU-R BS 1770-1
Target Level Tolerance : +/-0.5 LU
Maximum True Peak : -2dBTP
PML (QPPM) : -9dBFS
Maximum Short Term Momentary (3 Sec) : +5LU On The Relative Scale
Relative Gating : -8 LU
Absolute Silence Gate : -70 LUFS
All commercial soundtracks must be measured using ITU-R BS 1771-1 loudness meter to ensure compliance to the required recommendation.

The measurements will be defined using an integration time of 400ms with 75% overlap

Adstream File Delivery Specification For Italy

To maintain a consistently high quality product Adstream requires all material for distribution in this region to be supplied to the following SD specifications.

SD File Specification

⭐ Quicktime ProRes 422HQ 625/50

Video:
Codec : **Apple Quicktime ProRes 422 (HQ)**
Container : **MOV**
Profile : **HQ**
Interlacing : **Upper/Top Field First**
Frame Size : **720x576**
Frame Rate : **25 FPS**

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 First**
GOP structure : **I Frame Only**
Frame Size : **720x576 (608 if Inc VBI)**
Frame Rate : **25 FPS**

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

SD Video Level Requirements

TV Format **: SDTV**
Aspect Ratio **: 16:9**
Title Safe **: 16:9 - EBU R.95-1**

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

Out of gamut tolerance.

Whilst Adstream and the Broadcasters will reject illegal video levels they understand there may be instances where it is difficult to completely avoid, and 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%
    o (ie between -7mV and 721mV)
- RGB video levels -5% and 105%
    o (ie between -35mV and 735mV)

SD Audio Level Requirements

AGCOM 219/09/CSP

The loudness level of the program material must be in agreement with the AGCOM 219/09/CSP directive, including the following delivery specifications :

Reference Level : 1kHz@ -18dBFS
Integrated Loudness Program : -24 LUFS
Weighting Scale : As per ITU-R BS 1770-1
Target Level Tolerance : +/-0.5 LU
Maximum True Peak : -2dBTP
PML (QPPM) : -9dBFS
Maximum Short Term Momentary (3 Sec) : +5LU On The Relative Scale
Relative Gating : -8 LU
Absolute Silence Gate : -70 LUFS
All commercial soundtracks must be measured using ITU-R BS 1771-1 loudness meter to ensure compliance to the required recommendation.

The measurements will be defined using an integration time of 400ms with 75% overlap

adstream

Adstream File Delivery Specification For Italy

Clock/Slate and Pre & Post Roll Information – NOT MANDATORY

Structure	l.e. Duration	l.e. Timecode
TVC Only – Cut to Cut	30"	00:00:00:00 - 00:00:29:24

The full structure with Color bars and cover blacks could be request in case a deeper QC will be necessary. Our Client Service could support you.

For this region a valid clock/slate IS NOT mandatory **Clock/Slate Information** • Client • Product • Subject • Agency • Production House • Post/Prod House • Clock Number : **PPPMMYYBBPPPSSSNDDD** • Title • Duration HH:MM:SS:FF • Aspect	**HOW TO MAKE A CLOCKNUMBER FOR both SD and HD** **PPPMMYYBBPPPSSSNDDD** **P: who place the order** **B: Brand** **P: Product** **S: Subject** **N: Version (A, B, C, ...)** **D: Duration** **The clock number should be up to 30 alpha-numeric characters, - eg should not contain characters such as (! " $ % & / () ? ^ * § ° ç > < _ - ; : | &)** **HD and SD assets of the same subject should have the same CLOCKNUMBER.**

NOTES!

- **The channel logos are also broadcast during the advertising slots with the risk of impacting and covering the logos and / or super imposes of the TVC.**
  It is highly recommended to check the overall dimensions with the Sales Houses in order to avoid unwanted coverage, even partial.

- **Local clearance in Italy is managed by the legal department at the broadcasters. Check in time with the Sales Houses any relevant doubts.**

!!! To ensure compliance please contact our local office for any queries.

Italy | Technical Specification

All files uploaded to Peach are immediately run through an Auto QC process. To ensure files are not rejected please adhere to the guidelines below.

	HD (1080/50i)
Container	**MXF (OP1a)**
Video	
Codec	**XDCAM HD422**
Format Profile	**422P@HighLevel**
Frame size	**1920 x 1080**
Display Aspect Ratio	**16:9**
Frame rate	**25 fps**
Interlacing	**Upper Field First**
Bitrate	**50 Mbps**
Chroma Subsampling	**4:2:2**
GOP Length	**12 (M=3, N=12)**
Audio	
Format	**PCM (Little Endian)**
Channels	**2 (1 channel per stream)**
Sample Rate	**48 kHz**
Bit Depth	**16 bits / 24 bits**

File Layout

Files must be exact duration; TVC content only. No pre or post roll such as clock/slate, bars, black, hold, freeze or audio tone is required.

Video Levels

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

Luma = 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/first field dominant throughout and must be free of encoding artefacts, dropout, glitches, blocking, interlace issues or excessive aliasing and considered broadcast quality throughout.

Audio Levels

The Programme Loudness Level must be normalised to Infinite/Long Term Loudness of -24 LKFS (±0.5 LU) according to AGCOM 219/09/CSP - 05/01/2010.

Audio should be free of any distortion, glitches or excessive sibilance and must be in phase and in sync with the video throughout.

Safe Area

Please ensure all on screen text is free from spelling and grammatical errors, and within the relevant Safe Area in accordance with *EBU R95-2017* recommendations

HD Safe Area 1920x1080 Interlaced

Peach - Italy Technical Specification 2021
Customer Success: support.it@peachvideo.com +39 02 94750316
Country Sales Manager: elisabetta.pozzi@peachvideo.com +349 4241183
peachvideo.com