

Master Video File Specifications

Extreme Reach provides multiple solutions for uploading creative assets to your account. Whether you choose to upload spots via the Media Uploader Application or through the web-based platform, all files must meet the specifications in this document before they can be accepted.

To help ensure that your files are seen and heard exactly as you intend them to be, please review and follow the detailed specifications below. **Verifying the playout of your final digitized files locally prior to uploading to Extreme Reach is imperative.**

File Naming

The file name should be the Ad-ID with the file extension at the end (e.g., ZYWX9876000H.mpg or ZYWX9876000H.mov). If you're not using Ad-ID, file names should follow these guidelines:

- File names can only contain letters and/or numbers (special characters are not allowed).
- HD file names must end with an "H" and the SD file name must match the HD file name with the exception of the "H" (e.g., ZYWX9876000).
Note: In Canada, the "H" is not a requirement for HD spots.
- To avoid any potential rejections from TV destinations, keep file names to 12 characters or fewer for HD, and 11 for SD. See sidebar for specific restrictions.

RESTRICTIONS

- **CBS** allows up to 12 characters for SD or HD
- **ABC** allows up to 12 characters for SD and up to 13 characters for HD
- **NBC** allows up to 15 characters for SD and HD
- **FOX** allows up to 15 characters for SD and HD
- **ESPN** allows up to 18 characters for SD and HD
- **AT&T AdWorks** allows up to 20 characters for SD and HD
- **Discovery** allows up to 25 characters for SD and HD

Content Layout

All files must adhere to this configuration before uploading to the Extreme Reach platform.

5 SECONDS OF SLATE

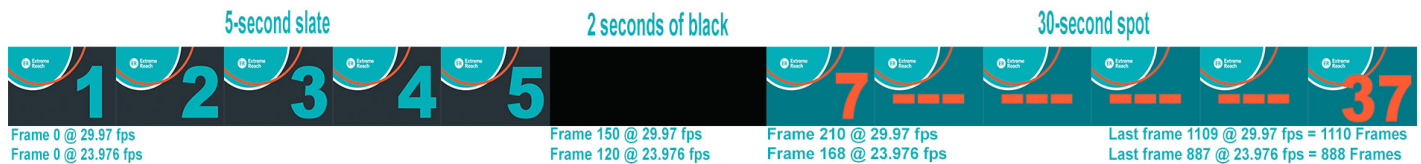
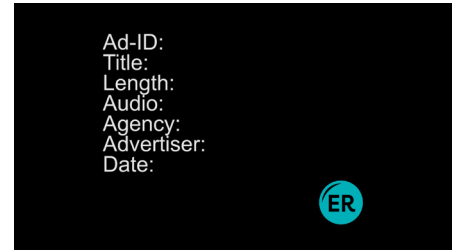
Ad-ID must be present on the slate. If you use “/H” then the same slate can be used for HD and SD. See sidebar for sample slate layout.

NO AUDIO ON SLATE

There should be no audio in the slate, however, a 2-pop at the end of the slate is acceptable as long as it does not exceed -20 dBFS.

START FRAME

The spot must start on frame 210 for 29.97 fps or frame 168 for 23.976 fps (first frame is frame 0 - see sample layout below). The creative content must run to the last frame of the spot with no black at the tail (unless the black is part of the content). There should be no extra frames after the creative.



Recommended Standards and Practices

Audio Levels

TARGET LOUDNESS LEVEL SHOULD BE -24 LKFS

Minor measurement variations up to approximately ± 2 dB from this value are anticipated due to measurement uncertainty, and are acceptable.

TRUE-PEAK LEVEL SHOULD BE BELOW -2 dB TP

This provides headroom to avoid potential clipping due to downstream processing.

These specifications are in accordance with ATSC RP A/85 and measured as per ITU-R BS. 1770-3.

THE TARGET LOUDNESS LEVEL SHOULD NOT BE -22 LKFS OR -26 LKFS

In order to provide consistent audio levels, any content that does not conform to the -24 LKFS loudness level may be normalized by Extreme Reach to meet the loudness requirement. This internal process will shift the average loudness to -24 LKFS with no impact to dynamic range.

To avoid any potential rejections from TV and digital destinations, we recommend keeping true-peak levels below -6 dB TP.

Video Levels

When measured on a digital scale (SDI Hardware/Internal NLE meters):

Black level = 0% / 0mV

White level = 100% / 700mV

RGB = 0% - 100% / 0mV - 700mV

With 8-bit coding:

0% = Digital value of 16

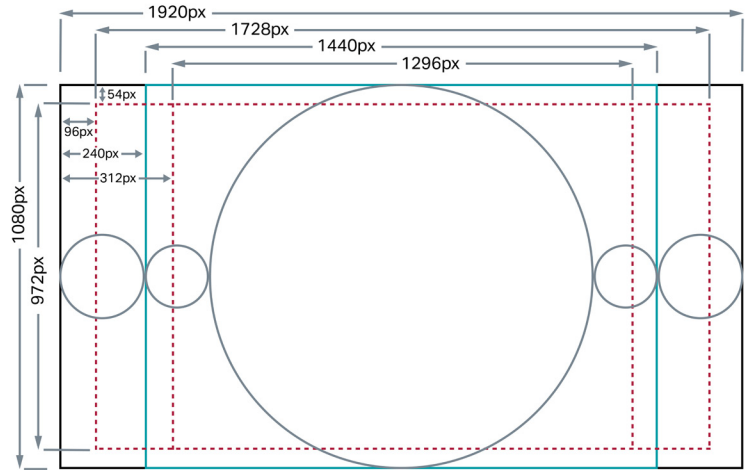
100% = Digital value of 235

These specifications are in accordance with ITU-R BT.601 and ITU-R BT.709.

Safe Title Area

The safe title area is 90% of the width and 90% of the height of the production aperture. All graphics, text and frame composition elements should be placed within the safe title area to prevent key content from being cut-off. These specifications are in accordance with SMPTE ST 2046-1.

All TV assets with graphics, text and frame composition elements outside of 93% (Safe Action Area) will be rejected.



Center Cut Protection

The center cut protected area is 90% of the width and 90% of the height of the 4:3 aperture. All graphics, text and frame composition elements should be placed within the center cut protected area to prevent key content from being cut-off when downconverted to SD. These specifications are in accordance with SMPTE RP 2046-2.



Audio Specifications

AUDIO TYPE

	MPEG	PCM
Type	MPEG-1 Layer 2	SMPTE 302M
Channels	2 channels	2 channels or 8 channels

CHANNEL CONFIGURATION

	Stereo (MPEG or LPCM)	5.1 Surround plus Stereo (LPCM)
Channel 1	Stereo Left	Left Front
Channel 2	Stereo Right	Right Front
Channel 3		Center
Channel 4		Low Frequency Effects
Channel 5		Left Surround
Channel 6		Right Surround
Channel 7		Stereo Left
Channel 8		Stereo Right

High Definition Specifications

	MPEG (*.mpg)	ProRes (*.mov)	Avid (*.mov)	MXF (*.mxf)
Stream Type	MPEG-2 Transport Stream (422@HL, HP@HL)	Apple ProRes 422 (HQ) Apple ProRes 422 (LT)	AVID DNxHD HQ AVID DNxHD SQ	XDCAM HD 422
Video Bit Rate	45 Mbps (constant)	Default	Default	50 Mbps
GOP	Long GOP	Default	Default	Long GOP
Frame Rate	23.976 fps (1080p) or 29.97 fps (1080i) or 59.94 fps (720p)			
Aspect Ratio	16:9			
Pixel Aspect Ratio	Square			
Width/Height	1920x1080 (1080p) or 1920x1080 (1080i) or 1280x720 (720p)			
Chroma	4:2:2			
Interlacing	1080p (progressive) or 1080i (upper/top field first) or 720p (progressive)			
Audio Type	MPEG-1 Layer 2	PCM	PCM	PCM
Audio Sample Rate	48kHz			
Audio Bit Depth	N/A	16 bits or 24 bits		
Audio Bit Rate	384 Kbps	Uncompressed	Uncompressed	Uncompressed

Standard Definition Specifications

	MPEG (*.mpg)	ProRes (*.mov)	Avid (*.mov)	MXF (*.mxf)
Stream Type	MPEG-2 Program Stream or Transport Stream (422@ML, HP@ML or HP@HL)	Apple ProRes 422 (HQ) Apple ProRes 422 (LT)	Avid Meridien Compressed	XDCAM IMX 50 XDCAM IMX 35 XDCAM IMX 25
Video Bit Rate	20 Mbps (constant)	Default	35 Mbps (2:1)	50, 35 or 25 Mbps
GOP	Long GOP	Default	Default	Default
Frame Rate	29.97 fps or 23.976 fps			29.97 fps
Aspect Ratio	4:3			
Pixel Aspect Ratio	9:10 (D1 Pixels)			
Width/Height	720x512* or 720x480	720x486* or 720x480	720x486* or 720x480	720x512* or 720x480
Chroma	4:2:2			
Interlacing	SD content can be upper/top or lower/bottom field first or progressive (23.976 fps files must be progressive)			Upper/Top field first
Audio Type	MPEG-1 Layer 2	PCM	PCM	PCM
Audio Sample Rate	48kHz			
Audio Bit Depth	N/A	16 bits or 24 bits		
Audio Bit Rate	384 Kbps	Uncompressed	Uncompressed	Uncompressed

* Active picture 720x480

Closed Captioning

- When sending spots with closed captions, masters must be sent with a frame rate of either 29.97 fps or 59.94 fps (23.976 fps is not currently supported).
- For MPEG files, CEA-608 and CEA-708 data must be compliant and present if a spot is closed captioned (SMPTE 436M for MXF file types and QuickTime closed captioning track for MOV file types).
- SD formats with embedded CEA-608 closed captioning data and QuickTime closed captioning track for MOV files are accepted. Line 21 captions are only accepted on 720x486 and 720x512 formats.
- MPEG SD 720x512 with Line 21 captions must be upper/top field first.
- QuickTime SD 720x486 with Line 21 captions must be lower/bottom field first.
- The first caption should be “paint-on” and occur on or after the fifth frame of content or there must be a one-second delay if the first caption is “pop-on.”
- All spots intended for broadcast in Canada must contain closed captioning.
- If a spot is closed captioned, it must be indicated in the metadata and should be included on the slate.
- Closed captioning insertion and file format conversion services are available upon request.

Contact us at support@extimereach.com or 800.324.5672 for a more personal discussion regarding your workflow and needs.