

TV | VIDEO

# Master File Specifications

Extreme Reach provides multiple solutions for uploading video creative 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 video files are seen exactly as you intend them to be, please review the detailed specifications below.

## Verifying Digitized Files

Before you review the information in this document, please check and verify the playout of your final digitized files prior to uploading to Extreme Reach. Common issues to look for include:

### **INCORRECT 5.1 AUDIO CONFIGURATION**

A common issue is lack of voiceover on Channel 3.

### **VIDEO GLITCHES**

These sometimes occur when video files are rendered from the editing system or during capture of source material.

### **EXTRA FRAMES**

At the beginning or end of a spot (proper timing).

### **INACCURATE SLATE INFORMATION**

Such as incorrect Ad-ID or ISCI, advertiser, title, etc.

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All files should be sent according to the specifications in this document. Extreme Reach handles the delivery for you based on each destination's specifications. Please use the details in this document when sending files to Extreme Reach to avoid potential rejection.

## File Naming

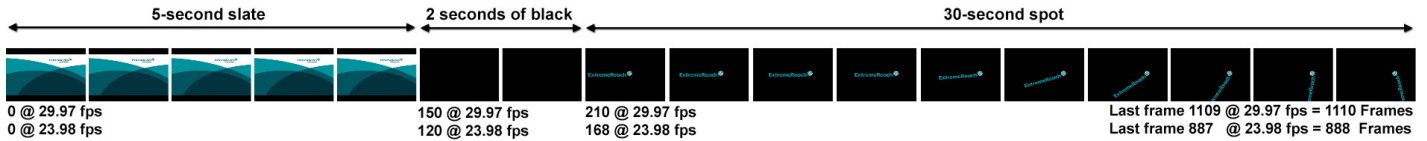
The file name should be the Ad-ID or ISCI with no spaces, dashes or other special characters, with the file extension at the end, (e.g., ZYWX9876000H.mpg or ZYWX9876000H.mov).

HD spots must end in an "H" and the SD file name must match the HD file name with the exception of the "H," (e.g., ZYWX9876000).

In Canada, the "H" is not a requirement for HD spots.

# Content Layout

All files are required to be laid out in the following configuration before they can be correctly ingested into the Extreme Reach platform:



## 5 SECONDS OF SLATE

AD-ID or ISCI must be present on the slate. if you use "/H" then the same slate can be used for HD and SD.

## NO AUDIO ON SLATE

There must 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 29.97fps or frame 168 for 23.98fps. The creative content must run to the last frame of the spot with no black at the tail for a total of 1110 frames for 29.97fps or 888 frames for 23.98fps (unless the black is part of the content). There should be no extra frames after the creative.

**THESE SPECIFICATIONS MUST BE MET EXACTLY TO ENSURE COMPLIANCE WITH THE VIDEO DESTINATION'S REQUIREMENTS.**

For example, a correctly-formatted 30-second spot will have a total duration of 37 seconds (including slate and black) and a total of 1110 frames at 29.97fps or 888 frames at 23.98fps. This means the start of the spot will be at the 7-second mark and there is no black after the spot.

# Video Levels

## WHEN MEASURED ON A DIGITAL SCALE

(SDI Hardware/Internal NLE meters)

- Black level = 0% / 0mv
- White level = 100% / 700mv

# Audio Levels

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

## TARGET LOUDNESS LEVEL SHOULD BE -24 LKFS

The target loudness level should be -24 LKFS. Minor measurement variations of up to approximately  $\pm 2$  dB about this value are anticipated due to measurement uncertainty, and are acceptable.

**Note:** The target loudness level should not be -22 LKFS or -26 LKFS.

## TRUE-PEAK LEVEL SHOULD BE BELOW -2 dB TP

The true-peak level should be below -2 dB TP in order to provide headroom to avoid potential clipping due to downstream processing.

# Suggested Standards

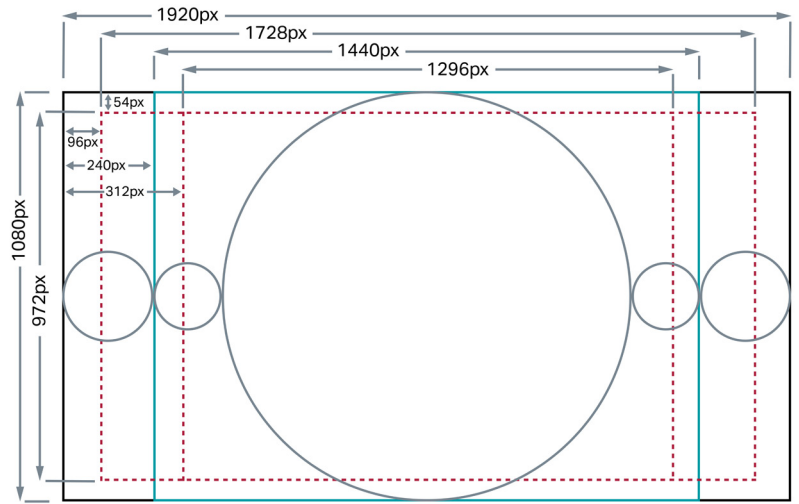
## SAFE TITLE AREA

The safe title area is 90% of the width and 90% of the height of the production aperture.

These specifications are in accordance with SMPTE ST 2046-1 and SMPTE RP 2046-2.

## 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 if you want to prevent key content from being cut-off when downconverted to SD.



# Audio Specifications

## AUDIO TYPE

	MPEG	PCM
Encoding	MPEG-1 Layer 2	SMPTE 302M
Channels	2 – Stereo	2 channels or 8 channels

## CHANNEL CONFIGURATION

	Stereo Only (MPEG or LPCM)	5.1 Surround Sound 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 File Specifications

	MPEG (*.mpg)	ProRes (*.mov)	Avid (*.mov)	MXF HD (*.mxf)
Stream Type	MPEG-2 Transport Stream (422@HL, HP@HL)	Apple ProRes 422 (HQ) 1920x1080 23.98p 48 kHz  Apple ProRes 422 (HQ) 1920x1080 60i 48 kHz  Apple ProRes 422 (HQ) 1280x720 60p 48 kHz  ProRes 422 (LT) can be used if bandwidth is limited	AVID DNxHD 145 AVID DNxHD 220 AVID DNxHD 115 AVID DNxHD 175	XDCAM HD 422
Video Bit Rate	45 Mbps-Constant	Default	Default	50 Mbps
GOP	Long GOP (IBBP)	Default	Default	Long GOP
Frame Rate		29.97 (1080i) 23.98 (1080p) 59.94 (720p)		
Aspect Ratio		16:9		
Pixel Aspect Ratio		Square		
Width/Height		1920x1080(1080i) 1920x1080(1080p) 1280x720(720p)		
Chroma		4:2:2		
Interlacing		1080i (Upper/top field first) 1080p (Progressive) 720p (Progressive)		
Audio Type	MPEG Layer 2	PCM	PCM	PCM
Audio Sample Rate		48kHz		
Audio Bit Rate		16 bit or 24 bit		

# Standard Definition File Specifications

	MPEG (*.mpg)	ProRes (*.mov)	Avid (*.mov)	MXF OP1a (*.mxf)
Stream Type	MPEG-2 Program Stream or Transport Stream (422@ML, MP@ML)	Apple ProRes 422 (HQ) ProRes 422 (LT) can be used if bandwidth is limited	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 or 23.98 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 or Lower Field First or Progressive (23.98 files must be progressive)			Upper/Top field first
Audio Type	MPEG Layer 2	PCM	PCM	PCM
Audio Sample Rate	48kHz			
Audio Bit Rate	384kbps	Uncompressed	Uncompressed	Uncompressed

## Closed Captioning

- When sending spots with closed captions, masters must be sent with a frame rate of either 29.97fps or 59.94fps (23.98fps currently is not supported).
- For MPEG files, EIA-608 and EIA-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 EIA-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 field first.
- QuickTime SD 720x486 with Line 21 captions must be lower 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.

Contact us at [support@extremereach.com](mailto:support@extremereach.com) for a more personal discussion regarding your workflow and needs.