

# Recommended Video Source Formats and Specifications

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While Kaltura supports a wide range of video formats and codecs, there are some recommended specifications for creating source files. These will ensure that your source file is quickly transcoded to multiple flavors (renditions), while offering the optimal video and audio quality.

The lists and tables below are designed to supply you with the recommended settings you should use when compressing a video project in software as Final Cut Pro, Avid, Compressor, Adobe Premiere and others.

**Please note:** this is a best practices document. Other settings are likely to work as well.

## Recommended Video Settings

File	Recommended	Avoid
Compressed Source	H.264, ProRes	
Container	MOV, MP4	
Bitrate	x1.5-2 of the largest flavor	
Frame Size	As big as the largest desired flavor	Don't scale/zoom
Frame Size	Multiples of 16 (see below)	
Frame Rate	Keep the original	Don't re-sample

Some editing and transcoding software include various export profiles. We recommended exporting using the QuickTime MPEG-4 profile. In the options choose the following:

**MP4/MOV Streaming** - choose Fast-Start.

**MP4 Video Compression** - choose H.264 High profile.

**Bitrate** – based on video dimensions. See table below.

**Progressive scan mode** – avoid interlaced (Kaltura can handle interlaced as well, but it's not recommended).

**Multi pass** –multi-pass will provide better quality (although Kaltura can convert single-pass file as well).

**VBR vs. CBR** - VBR (variable bitrate) usually provides better quality than CBR (constant bitrate).

**Frame Rate** – choose Current.

#### Frame Sizes with Recommended Bitrates

An ideal source bitrate is 6,000-8,000 Kbps, however for smaller dimensions you may use lower bitrates as shown in the table below (default Kaltura flavors dimensions appear in bold).

16:9	4:3	Bitrate Range
<b>1920x1080 (1080p)</b>		6,000-8,000 Kbps
<b>1280x720 (720p)</b>		3,750-5,000 Kbps
<b>1024x720 (iPad)</b>		3,750-5,000 Kbps
960x540 (540p)		
720x405		
640x360	640x480	1,350-1,800 Kbps
560x315	560x420	
<b>480x270</b>	<b>480x360</b>	600-800 Kbps
400x225	400x300	
<b>320x180</b>	<b>320x240</b>	600-800 Kbps

#### Recommended Audio Settings

File	Recommended	Avoid
Compression	AAC, MP3	Nellymoser
Channels	Stereo, Mono	Surround, 7.1
Sample Size	44.1 kHz or lower	
Sound Levels	Normalized	Peaks, low sound