

## Recommended Settings for Digital Video with Audio

Calvin College Audio-Visual & Calvin College Information Technology

Category	HD Editing Quality	SD Editing Quality	High Quality Viewing	PowerPoint	Creating Subtitles
Typical Use	Exporting to edit in High Definition on another system	Exporting to edit in Standard Definition on another system	portable media players (iPods), web downloads, YouTube & Vimeo	Insert into PPT presentations	Playback in <i>Subtitle Workshop</i>
File Format & Codec	.mov & ProRes422 codec	.dv & DV-NTSC codec	.mp4 & H.264 codec	.wmv & WMV codec <b>(Mac users: see footnote)</b>	.avi & Mpeg4 codec (Visual Hub export: <i>Best Windows Compatibility</i> ) <b>(Mac users: see footnote)</b>
Constant Bitrate (lower setting makes smaller file)	140Mbps	25Mbps	1Mbps <i>(2 Mbps if re-encoding to DVD)</i>	320 kbps	320kbps
Video Resolution	1920x1080 or 1280x720	720x480	640 x 360 (widescreen) 640 x 480 (square screen)	320 x 180 (widescreen) 320 x 240 (square screen)	any
Video Frame Rate	29.97fps	29.97fps	30fps	15fps	15fps
Audio Codec	PCM	PCM	AAC	WMA	uncompressed
Audio Bit Depth	24	16	16	16	16
Audio Bitrate	2.75Mbps	1.5Mbps	128 kbps <i>(256 kbps if re-encoding to DVD)</i>	64 kbps	NA
Audio Sample Rate	48khz	48khz	48 khz	24 khz	22.05 khz
File Size / Minute	1.3GB/min	233MB/min	8.4MB/min	2.8MB/min	2.8MB/min

**PPT for Mac users:** The WMV format works well for Powerpoint in Windows. To use it on a Macintosh, a free plug-in called *Flip4Mac* must be installed. It is already installed on Macintosh computers provided by Calvin College. If you want to play WMV video in Powerpoint on someone else's Macintosh, you must install *Flip4Mac* onto it. The free download is available at: [www.flip4mac.com/download.htm](http://www.flip4mac.com/download.htm)

**AVI for Mac users:** If your Macintosh has trouble playing .avi files, download and install the free Perian codec from [www.perian.org/](http://www.perian.org/)