

UNDERSTANDING VIDEO FORMATS

CONTAINERS

A video container contains the various components of a video. The container “holds” a variety of media formats.

- **Most common containers:** MOV – Apple Quicktime, MP4 – MPEG, WMV – Windows Media Videp, FLV – Flash Video

CODECS

A codec is specifically meant for encoding and decoding data. A codec takes digital media data and it will either compress them or decompress them. The media needs to be encoded and during the encoding process, the compressed video is placed inside of a container to make a video file.

- **Most common codec:** H.624

RESOLUTION

Resolution is the number of pixels in each dimension that can be displayed. This is referring to the height and the width but the units are in pixels. 1920x1080, means the width is 1920 and height is 1080. This is high definition, known as 1080. Another common is 1280x720.

BITRATE

A bitrate is the number of bits that are processed per unit of time. Meaning, the amount of data written for every second of the video. The higher the bitrate, the larger the video size.

- **Constant** – set a hard limit on the amount of data per second. The encoder never goes over the limit.
- **Variable** – two limits – Target bitrate and Maximum bitrate. Target will be the average bitrate of the total file but the maximum allows the encoder to use more data (or less) when necessary.

FRAMERATE

Framerate is the number of video frames per second. The standard human eye can process about 10-12 frames per second. 15 frames per second, the human eye begins to perceive motion. 24 frames per second is standard for 35MM and 30 frames per second has been the standard for television.

KEYFRAME

Is a frame in which a complete image is stored in the data stream of your video. If you're editing your video, you can only cut the video on a keyframe. The keyframe needs to correlate with the frames per second setting. If the frames per second is set to 30, your keyframe should also be set to 30 frames.