CATALYST VIDEO CONTENT INFORMATION

Catalyst file formats
Catalyst is based on Quicktime playback - but it does not support every codec/format.
The best movie codec for catalyst use is 'ProRes' using Mac running OS 10.9.5 and above
(Apple Intermediate Codec can also be used on older MacPro 5,1 running OS 10.8.5 and above)

Content Information
Movie Format: Apple Quicktime Movie
Codec: ProRes 422 / 422 LT / 422 Proxy (see Apple Support)
Frame Rate: 25 or 30 fps (depending upon the screen/projectors in use 50Hz / 60Hz)
Data Rate: 50-100 Mbit/s (as low as possible)

It is not normally required to render video content in 4444 or 422 HQ formats
The only exception is if alpha transparency is required, then use ProRes 4444
Note that HQ and 4444 are very processor intensive, so less simultaneous layer playback will be possible

Resolution:
Current maximum file size is 14M Pixels which can accommodate 6x 1920x1080 or UHD & 4K
Catalyst can up-scale any video content - so 1:1 pixel is not always required.
A scale factor up to x3 is usually acceptable before any pixilation is noticeable.
File Size is not a fixed limit - Contact us if your requirements exceed this size

NOTE:
Frame rate should be an exact multiple of the output refresh rate (i.e. 60Hz=30fps or 50/75Hz=25fps)
Resolution must be a 'square pixel ratio'
Unless a custom resolution is required, the pixel width to be exactly divisible by 16 (some codecs require this)
In either case, the width and height should be an even number (not odd)
H264 / MPEG4 / AVCHD / HAP codecs are not supported.

Still Images:
PNG - Supports alpha transparency
TIFF - Supports alpha transparency
PSD
JPEG

Catalyst supports alpha transparency natively.
Transparency can also be achieved with the use of transparent black or white or mask colour effects.

Audio
Catalyst can playback stereo or multi-channel audio, depending on the hardware and sound-card available.
When audio is embedded in a movie, Catalyst will prioritise the audio and playback the movie at the rendered frame-rate, despite any other frame rate set in Catalyst. Video playback can be improved by setting the Catalyst frame rate to match the output refresh rate (i.e 50Hz)

SMPTE
Catalyst will chase SMPTE timecode and frame lock video playback.
When using SMPTE Timecode, it can be useful to embed the audio and SMPTE track in to the video file.

Add the audio track audio to Right channel and SMPTE timecode to Left channel
Ensure audio and timecode is the same timebase as the video = 25fps or 30fps (depending upon system refresh rate)
Avoid Dropped Frame timebases.

Avoid timecode start time at 00:00:00.00
It can take about 1 second for a computer to sync to SMPTE timecode. So a start time or 00:00:00.00 may be missed.
Adding 3 seconds of pre-roll should be considered in order to correctly trigger the movie playback.

Examples:
If the movie starts at 01:00:00.00
Preroll would start at 00:59:57.00

If the movie starts at 01:00:03.00
Preroll would start at 01:00:00.00

Performance

MacPro 6,1 2014
When using the internal SSD, you should not expect to obtain more than 16 simultaneous layers at
1920x1080 25/30fps Pro-Res LT/Proxy
ProRes HQ or 444 will be less simultaneous layers

MacPro 5,1 2013
When using an SSD, you should not expect to obtain more than 8 simultaneous layers at
1920x1080 25/30fps Pro-Res LT/Proxy or Apple Intermediate Codec
ProRes HQ or 444 will be less simultaneous layers

Performance depends upon the spec of your system
If using SD footage, you will be able to use more layers, depending upon the Mac specifications.

Any recorded or live camera footage should be de-interlaced before export to Pro-Res

Numbering
Catalyst uses folder and file numbering to determine content playback
each folder should have a 3 digit prefix (i.e. 001) plus a name (001-252)
each file should have a 3 digit prefix (i.e. 001) plus a name (001-255)
e.g:
Show Content
 001 Folder 1
        001 File one
        002 File two
etc...

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