## EX-XDCAM HD-to-SD Workflow (Blu-ray & DVD Output)

- 1. Filmed with EX video frame rate set to 1920x1080/59.95i
- 2. Setup Final Cut Pro for HD sequence as follows:

	Easy Setup
Format:	Sony XDCAM HD Rate: (all rates)
Use:	XDCAM EX 1080i60 VBR
	Use this Easy Setup when working with 1920x1080i XDCAM EX MPEG-2 35 Mb/s VBR source material at 29.97 fps. Sequence Preset: XDCAM EX 1080i60 VBR Capture Preset: Generic Capture Template Device Control Preset: Non-Controllable Device Playback Output Video: None Playback Output Audio: Default Edit to Tape/PTV Output Video: None Edit to Tape/PTV Output Audio: Default
	Note: Settings for existing sequences will not change. New sequences will use the settings from the selected Easy Setup preset.
	Cancel Setup

3. Set the HD Sequence settings as follows:

Sequence Settings	
Name: HD Sequence 1	
General / Video Processing / Timeline Options / Render Control / Audio Outputs /	
Render & Playback	
✓ Filters	
✓ Frame Blending For Speed	
Render	
Frame Rate: 100% of Sequence Editing Timebase	
Resolution: 100% 🔷 of Sequence Frame Size	
Codec: Apple ProRes 422 [HDV, XDCAM HD/EX only]	
Master Templates and Motion Projects	
Quality: Best	
Always Use Best Quality When Rendering Movies	
Load Sequence Preset Cancel	ОК

- Import and edit EX-XDCAM clips in the HD sequence 4.
- 5. Create a new SD sequence and right-click on it's settings to configure it.

⊖ ⊖ ⊖ Browser							
St.Jerome ProRes Project 1 Effects							0
🚔 Name 🔻	Duration	In	Out	Media Start	Media End	Tracks	Good
EX3A0013_01	00:01:43:02	Not Set	Not Set	19:20:46:08	19:22:29:09	1V, 2A	
HD Sequence 1	00:01:43;04	Not Set	Not Set	01:00:00;00	01:01:43;03	1V, 4A	
SD Sequence 2	00:01:43;04	Not Set	Not Set	01:00:00;00	01:01:43;03	1V, 4A	
						)	4 1

- 6. Configure the SD sequence as follows:
  - NTSC DV/DVPROAnamorphic 16:9

  - -Compressor using Apple ProRes 422 (HQ)
  - -Click on the Advanced Compressor, set to Interlaced, Bottom Field

Sequence Settir	ngs
Name: SD Sequence 2	
General $\bigvee$ Video Processing $\bigvee$ Timeline Options $\bigvee$ Render Control $\bigvee$ Audio	Outputs
Width         Height         Aspect Ratio           Frame Size:         720 x         480         NTSC DV (3:2)	•
Pixel Aspect Ratio: NTSC - CCIR 601 / DV ( 🗣	☑ Anamorphic 16:9
Field Dominance: None	
Editing Timebase: 29.97	
QuickTime Video Settings	Audio Settings
Compressor: Apple ProRes 422 (HQ)	Rate: 48 kHz
Quality: < 1 100 %	Depth: 16-bit
Advanced	Config: Channel Grouped
Load Sequence Preset	Cancel OK

	Compression S	Settings	
Compression type:	Apple ProRes 422 (HQ)	\$	)
Motion			
Frames per second:	29.97		
Key frame every	frames		
Limit data rate to	KBytes/sec		
Compressor	m field first 文		
?			Cancel OK

7. Set up the SD Sequence, Video Processing for 8-bit YUV rendering as follows:

	Sequence Settings
Name: SD Sequence 2	
General Video Processing V Timeline Options V Re	ender Control 🗸 Audio Outputs 🔪
<ul> <li>Always Render in RGB</li> <li>Render in 8-bit YUV</li> </ul>	Codecs which do not support YCbCr (also known as YUV) can only use RGB rendering; RGB rendering may be chosen for YUV-capable codecs, but may cause intensity or color shifts in rendered material.
<ul> <li>Render 10-bit material in high-precision YUV</li> <li>Render all YUV material in high-precision YUV</li> </ul>	High-precision YUV rendering provides higher quality results when applying multiple effects, or when the original material had more than 8 bits of precision, but takes longer to render.
Process Maximum White as: White This selects how RGB colors are mapped into YCrCb i which produce "brighter than standard" white (also kr	mage processing. This option can be set to match cameras nown as super-white).
Motion Filtering Quality: Normal This selects the filtering quality used when rendering	motion tab motion effects.
Load Sequence Preset	Cancel OK

- 8. Now drag the HD Sequence from the top left browser down into the SD Sequence timeline.
- 9. Render the SD Sequence, it will take some time.
- 10. Export the SD Sequence as a Quicktime movie using the Current Settings and it is not necessary to make a Self-Contained Movie, as follows:

$\bigcirc \bigcirc \bigcirc$	Save
	Save As: SD Sequence 2
	## 🔳 🔟 St.Jerome SD Trial 🛟 Q search
DEVICES     Barry J.     Macint     MacPro     MacPro	Anwen osh HD o Video o RAID AUDIO_TS PAR PAR SD Sequennal 2.0.ac3 SD SequenAM SD.m2v SD Sequence 2.mov II
Setting:	Current Settings
Include:	Audio and Video
Markers:	None
	Recompress All Frames     Make Movie Self-Contained
🗹 Hide e	xtension New Folder Cancel Save

11.	In Compressor, se	etup the video f	format for A	Anomorphic	16:9 as follows:
-----	-------------------	------------------	--------------	------------	------------------

000	Inspector
Name:	EX_XDCAM SD
Description:	Fits up to 90 minutesFF audio on a DVD-5
	Encoder
File Format:	MPEG-2 ‡
Extension:	m2v Allow Job Segmenting
Stream	Usage: SD DVD ;
Video Form	nat Quality GOP Extras
Video	Format: NTSC * A
video	
Fra	me kate: 29.97 , 5
Aspe	ct Ratio: 16:9 ; 🕸
Field Dor	ninance: Bottom First
	Choose start timecode
	( <b>v</b> )
	Drop Frame
A change i	n video format can result in modifications to
GOP and q	uanty settings.
	(Revert Save

12: Turn on the Frame Controls with Deinterlace set to Best as follows:

O O O Inspector
Name: EX_XDCAM SD
Description: Fits up to 90 minutesFF audio on a DVD-5
Frame Controls
Frame Controls: On 🛟 🔅
Resizing Control
Resize Filter: Better (Linear filter)
Output Fields: Same as source ‡
Deinterlace: Best (Motion compensated) +
Adaptive Details
Anti-alias: 😑 🗆 0
Details Level: 🔴 👘 0
Retiming Control
Rate Conversion: Fast (Nearest frame) +
Set Duration to: 💿 100.000% 🔹 🔻 of source
<ul> <li>so source frames play at 29.97 fps</li> </ul>
(Revert Save

13. Set the video encoding quality and Motion Estimation to Best as follows:

000	Inspector
Name:	EX_XDCAM SD
Description:	Fits up to 90 minutesFF audio on a DVD-5
	Encoder
File Format:	MPEG-2 ‡
Extension:	m2v Allow Job Segmenting
Stream	Usage: SD DVD ‡
Video Form	nat Quality GOP Extras
	Mode: Two pass VBR Best ‡
Average	Bit Rate: 6.2 Mbps
	2.0
Maximum	Bit Rate: 7.7 Mbps
	5.0 9.0
Motion Est	imation: Best ‡
Allows up	to 80 minutes/layer of video on DVD-5
	Revert Save

- 14. Complete the Compressor session for the SD video and audio.
- 15. Import the SD video and audio assests into DVD Studio Pro and complete the project as usual.