SONY

VENICE Workflow

HIGH PERFORMANCE WORKFLOWS FOR CREATIVE FREEDOM.

Uncompromising image quality with economical file sizes all the way to 6K

Exceptional tonal rendition and dynamic range thanks to 16-bit Scene Linear capture Fast, easy and powerful workflows supported by all major third-party post tools

16-bit Extended Tonal Range – Original Camera Negative and VENICE

VENICE provides internal recording in the XAVC®, MPEG2 and Apple® ProRes codecs (ProRes with firmware upgrade). Add the AXS-R7 external recorder and you get Sony's superlative 16-bit linear RAW and 16-bit eXtended Tonal Range — Original Camera Negative (X-OCN) recording. The X-OCN format is a game changer, achieving up to 6K resolution and High Dynamic Range while maintaining reasonable bitrates.

16-bit recording with an Ultra-Wide Color Gamut and HDR workflows

Far exceeding 10 and 12-bit formats, 16-bit X-OCN records 65,536 tonal gradations per color component, or over 280 trillion individual shades of color. This is the ultimate in grayscale expression, creating an enormous palette for extreme subtleties in grading and far greater flexibility for colorists and editors alike. In this way, X-OCN is ideal for the most advanced workflows, including ACES, Rec. 2020, SMPTE ST 2084, the extended color space of Sony's S-Gamut3 color and High Dynamic Range tone mapping.



Supports VENICE at up to 6K in Full-Frame

X-OCN captures the full dynamic range of VENICE at resolutions up to 6K (when in Full-Frame mode) with a unique 16 bits of depth per color component. The stunning full 6K resolution of the camera can be recorded directly in X-OCN file format by the AXS-R7 recorder.



If required, post-production tools such as Sony's RAW Viewer can process X-OCN material from 16-bit Linear to Sony's S-Log3 for 10-bit deliverables. Sony's unique log curve, S-Log3 is vital where constraints in data storage and viewing conditions call for the use of 10-bit representation. S-Log3 captures the extended dynamic range of the VENICE imaging sensor and optimally maps its grayscale gradations within 10 bits for image monitoring or for viewing dailies such as when recording to the XAVC, MPEG or Apple ProRes codecs.

VENICE Recording Formats

Format	Profile	23.98	24.0	25.0	29.97	50	59.94
RAW*		1	\checkmark	1	\checkmark	1	\checkmark
X-OCN*	X-OCN ST	1	1	<i>✓</i>	1	1	1
	X-OCN LT	1	1	1	1	1	1
XAVC 4K	Class480	1	1	1	\checkmark		
	Class300	1	1	<i>✓</i>	1	1	1
XAVC QFHD	Class480	1		1	\checkmark		
	Class300	\checkmark		1	1	\checkmark	1
MPEG HD	422	1		1	1	1	1
HD ProRes**	ProRes 422 HQ	1	1	1	\checkmark	1	\checkmark
	ProRes 422	1	1	1	1	1	1
	ProRes 422 Proxy	1	1	1	1	1	1

* Sony RAW and X-OCN recording require AXS-R7 recorder, sold separately. ** Apple ProRes recording requires firmware Version 2.0, expected July 2018.

X-OCN recording: Established post workflows

X-OCN is as easy to work with as Sony RAW, with files that play back in real time on most laptop computers. You get a choice of tools for debayering, editing, grading and file management. Instead of "baking in" your settings for Exposure Index, color space, LUTs, gamma and log, X-OCN captures these parameters as monitoring settings. This process is completely non-destructive, delivering the full potential of the image sensor into post but with the added advantage of efficient file sizes. For additional simplicity, X-OCN uses the same industry-standard OP1a MXF wrapper as Sony RAW, XAVC, SR File and MPEG2 formats. Both picture and sound are contained within one file wrapper for easy file management.

X-OCN files are smaller, transfer faster

X-OCN combines the quality and versatility of RAW with the easy playback and smaller files of traditional codecs. You get longer record times, faster file transfers and more cost-effective postproduction.

In X-OCN – Standard (ST) mode, X-OCN preserves the tremendous subtlety, image information and processing robustness of 16-bit Scene Linear. Choose X-OCN – Light (LT) mode when you need even smaller file sizes, yet you still require the phenomenal picture quality and image processing flexibility provided by 16-bit Scene Linear.



Workflow tools compatible with the X-OCN codec

X-OCN is supported by leading non-linear editing software tools such as Adobe Premiere CC, Apple Final Cut Pro X via Calibrated{Q} Sony RAW Decode plug-in, Avid Media Composer via nablet Sony RAW AMA plug-in, Blackmagic DaVinci Resolve, Colorfront OSD and FilmLight Baselight, to name a few.



FilmLight colorfront



VENICE on-board recording

In addition to X-OCN and 16-bit Sony RAW recording with the AXS-R7 recorder, VENICE also supports internal recording in the XAVC, MPEG HD and Apple ProRes* codecs. The camera provides two SxS memory card slots.

* Firmware update required



Simultaneous Recording for faster workflow

A key benefit of VENICE is simultaneous recording. For example, a production could use RAW/X-OCN data recorded by AXS-R7 for the color grade and use XAVC, Apple ProRes* or MPEG HD for offline editing without waiting for any file conversion. As VENICE can also record XAVC 4K and RAW / X-OCN* simultaneously, another option would be to use XAVC 4K for quick turnaround mainstream production while simultaneously recording RAW / X-OCN as a future-proof archive suitable for the highest guality HDR applications. Even without using AXS-R7, VENICE itself can record XAVC 4K and Apple ProRes 422 Proxy* or MPEG HD simultaneously. VENICE is designed to support both the highest quality imagery and high speed workflows.

SxS	AXS		
MPEG HD**			
HD ProRes*			
XAVC 4K*	πAW		
XAVC QFHD*			
MPEG HD**			
HD ProRes*	X-OCN		
XAVC 4K*			
XAVC QFHD*			

*Firmware update required **Fixed FPS only

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ΔΧ5Μ

256 GB | S24



AXS-AR1 Thunderbolt[™] 2 Card Reader

Sony's most advanced card reader supports AXS-A Series and SxS memory cards and connects to macOS® computers via Thunderbolt 2 interface at up to 9.6 Gbps (1200 MB/s).

A Series S48 cards

AXSM

A Series S24 cards

AXS-R7 recorder

AXS-AR1 High Speed Thunderbolt 2 Card Reader

VENICE recording times with 512GB A series, AXS-A512S48 and A512S24 cards**

lmager mode	Project FPS	RAW	X-OCN ST	X-OCN LT
3.8K 16:9	23/24	62 min.	90 min.	152 min.
	59	25 min.	36 min.	61 min.
4K 17:9	23/24	62 min.	90 min.	152 min.
	59	25 min.	36 min.	61 min.
4K 4:3	23/24	-	65 min.	110 min.
	25*	-	63 min.	107 min.
	29*	-	50 min.	86 min.
4K 6:5	23/24	-	57 min.	97 min.
	23	-	52 min.	89 min.
5.7K 16:9*	25	-	50 min.	86 min.
	29	-	42 min.	71 min.
	23/24	-	42 min.	71 min.
6K 17:9*	25	-	40 min.	68 min.
	29	-	33 min.	57 min.
	23/24	-	41 min.	69 min.
6K 1.85:1*	25	-	39 min.	66 min.
	29	-	33 min.	55 min.
6K 2.39:1*	23/24	-	37 min.	62 min.
	25	-	35 min.	60 min.
	29	-	29 min.	50 min.
CK 2-2	23/24	-	33 min.	56 min.
6K 3:2	25*	-	31 min.	53 min.

*Firmware update required. **All AXS A Series cards support all imager modes and all project frame rates, including Variable FPS.

VENICE required storage for one hour of recording (The AXS-R7 recorder can hold two 1 TB cards.)

Imager mode	Project FPS	RAW	X-OCN ST	X-OCN LT
3.8K 16:9	23/24	0.5 TB	0.36 TB	0.21 TB
	59	1.25 TB	0.91 TB	0.54 TB
4K 17:9	23/24	0.5 TB	0.36 TB	0.21 TB
	59	1.25 TB	0.91 TB	0.54 TB
4K 4:3	23/24	-	0.5 TB	0.3 TB
4K 6:5*	23/24	-	0.57 TB	0.35 TB
5.7K 16:9*	23/24	-	0.63 TB	0.37 TB
	25	-	0.63 TB	0.37 TB
	29	-	0.77 TB	0.46 TB
	23/24	-	0.77 TB	0.46 TB
6K 17:9*	25	-	0.81 TB	0.48 TB
	29	-	1 TB	0.58 TB
	23/24	-	0.79 TB	0.48 TB
6K 1.85:1*	25	-	0.83 TB	0.5 TB
	29	-	1 TB	0.6 TB
6K 2.39:1*	23/24	-	0.77 TB	0.53 TB
	25	-	0.94 TB	0.55 TB
	29	-	1.11 TB	0.65 TB
6K 3:2	24	-	1 TB	0.58 TB

*Firmware update required

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