

2023.5 Data Sheet - Supported File Formats






Flow

Exported on 09/07/2023









1 Considerations

- Implementation of Avid proxy formats produced by Edge impose a number of known Avid-specific conversions. Avid proxies are under consideration and will be included upon binding commitment.
- Implementation of ingest through transcoding to Avid-supported video codecs other than DNxHD, DNxHR and AVC-Intra are under consideration and will be included upon binding commitment.

2 Limecraft Flow and Edge - Ingest File Formats

#	File Container	Codecs and Variants	Edge ingest	Flow ingest	Status	Notes
1	MXF	<ul style="list-style-type: none"> MXF OP1a <ul style="list-style-type: none"> Sony XDCAM (DV25, MPEG IMX codecs), XDCAM HD and XDCAM HD 422 <ul style="list-style-type: none"> also for Canon C300/C500 and XF series Sony XAVC (incl. XAVC Intra and XAVC-L codecs) ARRI Alexa MXF (DNxHD codec) AS-11 MXF (MPEG IMX/D10, AVC-I codecs) 			Deployed	<ul style="list-style-type: none"> No P2 spanned clips supported at the moment. Referencing original OP1a media from Flow AAFs is possible using AMA media linking in Avid. AAF workflows for P2 are not implemented end-to-end yet.
		<ul style="list-style-type: none"> MXF OP-atom <ul style="list-style-type: none"> P2 (DV codec) and P2 HD (DVCPro HD, AVC-I 50 and AVC-I 100 codecs) 			Deployed. Only available in Edge .	
1.1	MXF	<ul style="list-style-type: none"> Sony RAW and X-OCN (XT, LT, ST) in up to 6K and 8K sensor resolutions. <ul style="list-style-type: none"> for Sony Venice and Venice 2, F65, PMW-F55, PMW-F5 and NEX-FS700 			Deployed. Only available in Edge .	<ul style="list-style-type: none"> Due to the heavy data rates involved in processing these files, a properly provisioned system is required, featuring fast storage (SSD or RAIDed spinning disks) and a recent GPU (with at least 4GB of memory).



#	File Container	Codecs and Variants	Edge ingest	Flow ingest	Status	Notes
2	R3D	<ul style="list-style-type: none"> R3D clips from all Red Digital Cinema cameras (incl. RED One and RED Epic) 	✓	✗	Deployed. Only available in Edge .	<ul style="list-style-type: none"> Full RED magazine and spanned clips ingest is supported through Edge, for older versions of R3D files. Ingest is no longer supported on Limecraft Flow. Full support for recent R3D clips and magazines with GPU acceleration is upcoming in Edge release 2023.2.
3	ARRI	<ul style="list-style-type: none"> ARRI Alexa RAW (incl. Open Gate sensor RAW imagery). 	✓	✗	Deployed. Only available in Edge .	<ul style="list-style-type: none"> Due to the heavy data rates involved in processing these files, a properly provisioned system is required, featuring fast storage (SSD or RAIDed spinning disks) and a recent GPU (with at least 4GB of memory). Currently, only the Alexa line of cameras (Alexa, Alexa SXT and Alexa Mini) is supported, not the Alexa 65.
		<ul style="list-style-type: none"> ARRI Alexa MXF/ARRIRAW (from ARRI Alexa Mini) ARRI Alexa MXF/ProRes (from ARRI Alexa Mini LF, not yet supported for ARRI Alexa 35) 	✓	✗		
4	Quicktime	<p>With video in following formats:</p> <ul style="list-style-type: none"> ProRes DNxHD DV Apple Video Apple M-JPEG Quicktime Animation Quicktime Graphics Sorensen video <p>and audio in following formats:</p> <ul style="list-style-type: none"> PCM AAC alaw/μlaw MP3 ALAC 	✓	✓	Deployed	<ul style="list-style-type: none"> This includes a.o. Quicktime clips generated by ARRI Alexa and Amira products, Blackmagic Design cameras, Video Devices PIX devices, Atomos recorders, Convergent Design Odyssey recorders.

#	File Container	Codecs and Variants	Edge ingest	Flow ingest	Status	Notes
5	Blackmagic RAW	<ul style="list-style-type: none"> Blackmagic RAW video with PCM audio. 			Deployed. Only available in Edge .	<ul style="list-style-type: none"> Due to the heavy data rates involved in processing these files, a properly provisioned system is required, featuring fast storage (SSD or RAIDed spinning disks) and a recent GPU (with at least 4GB of memory).
6	MP4	<p>All MP4 with H.264 and AAC or MP3/MP2 audio.</p> <p>This includes support for the following types of cameras:</p> <ul style="list-style-type: none"> GoPro HD and 4K XDCAM EX XAVC S 			Deployed	<ul style="list-style-type: none"> XDCAM EX support includes reading timecode metadata (only available in Edge).
7	MPEG TS/PS variants	<ul style="list-style-type: none"> AVCHD DVD VOB MPG (MPEG-1 video and audio) 			Deployed	
8	Legacy Formats	<ul style="list-style-type: none"> AVI (incl., MJPEG, XViD, DivX, Cinepak and uncompressed codecs) <ul style="list-style-type: none"> Support for Starlight low-light cameras WMV (with Windows Media Video 7, 8, 9 codecs for video and Windows Media Audio 1, 2, 9 Pro and Lossless codecs for audio) DV (SD DV-based bitstreams without container, but including uncompressed audio) 			Deployed	

#	File Container	Codecs and Variants	Edge ingest	Flow ingest	Status	Notes
9	Web Formats	<ul style="list-style-type: none"> • WebM (with VP8 and VP9 video and Vorbis and Opus audio) • Ogg (with Theora video and Vorbis audio) • Flash FLV (with Sorenson Spark, VP6, H.264 video and MP3, ADPCM, Nellymoser, Speex and AAC audio) • MKV (with a variety of codecs, incl., H.264, XViD video and uncompressed WAVE, MP3, FLAC, AAC and AC-3 audio) • ASF (with WMV video and WMA audio, cf. WMV format) 	✓	✓	Deployed	
10	Image Sequences and time lapses	Sequences of JPEGs, PNGs, GIFs.	✓	✗ *	Deployed	<ul style="list-style-type: none"> • No timecode is imported when interpreting time lapse sequences • In order to be imported as a sequence, a consistent supported file pattern needs to be present in all image file names. • Currently, image sequences are imported with a default frame rate of 25 FPS. <p>* Still image formats can be ingested by Flow directly, but as individual images and not as image sequences.</p>
11	Audio Formats	<ul style="list-style-type: none"> • WAVE and BWF (support for both poly and mono-wave BWF files) <ul style="list-style-type: none"> • Timecode and metadata are read from BWF audio files. • AIFF • MP2/MP3 streams • MP4 (with AAC, MP3, PCM and ALAC audio) • OGG (with Vorbis and Opus audio) • FLAC 	✓	✓ *	Deployed	<p>* Poly-wave BWF files are not interpreted as related when ingested directly into Flow using web-based uploads, Edge should be used to support this use case.</p>



3 Limecraft Edge - MXF Rewrapping File Formats

Limecraft Edge supports rewrapping (or "consolidation") of content in MXF files, from OP-1a and OP-atom flavors to Avid-compliant OP-atom flavors for use in Avid editing environments. The following table lists the MXF OP-1a formats supported for this rewrapping operation. Rewrapping is not available in Limecraft Flow at the moment.

#	File Container	Codecs and Variants	Edge ingest	Flow ingest	Status	Notes
1	MXF OP-1a and OP-	<ul style="list-style-type: none"> Sony XDCAM (DV25, MPEG IMX codecs), XDCAM HD and XDCAM HD 422 <ul style="list-style-type: none"> also for Canon C300/C500 and XF series Sony XAVC (incl. XAVC Intra and XAVC-L codecs) AS-11 MXF (MPEG IMX/D10, AVC-I codecs) DNxHD/VC-3 MXF (DNxHD codec in all variants, e.g., ARRI Alexa MXF) 			Deployed.	Only available in Edge.
2	MXF OP-atom	<ul style="list-style-type: none"> P2 (DV codec) and P2 HD (DVCPPro HD, AVC-I 50, AVC-I 100 and AVC-I 200 codecs) 				

4 Limecraft Edge - MXF Transcoding Formats

Limecraft Edge supports transcoding of all input formats to select OP-1a and Avid-compliant OP-atom MXF flavors. The following table lists the codecs supported for this transcoding operation. MXF Transcoding is only available in Limecraft Edge at the moment.

#	File Container	Codecs and Variants	Edg e ing est	Flo w ing est	Status	N o t e s
1	MXF OP-1a and OP-atom	<ul style="list-style-type: none"> • (X)AVC Intra 50/100 transcoding output from all input sources listed above (for supported frame rates: 23.98, 24, 25, 29.97, 50 and 59.94 FPS). • DNxHD/VC-3 and DNxHR transcoding output from all input sources listed above (for supported frame rates: 23.98, 24, 25, 29.97, 50 and 59.94 FPS). 			Deployed. Only available in Edge.	