



# MAM4PRO

MAM4PRO is an enterprise solution for managing and executing all media operations in a professional media production ecosystem, such as broadcasters and production houses.

By virtualizing media operations such as recording, ingesting, transcoding, playback, streaming, encoding, and decoding, MAM4PRO simplifies equipment redundancy and network complexity, making collaborative production effortless and simpler.

## Highlights

- **Virtualized media operations:** real-time stream, record, ingest, playback, transcode and file transfer
- **Centralized media ecosystem:** same platform for production, contribution, and distribution video formats
- **Multiple deploy options:** on-premises or on the cloud (Private, Public, and Hybrid)
- **Collaborative remote workflows:** ideal for remote digital media production and management
- **Management and control:** central administration of all media operations, anywhere
- **Resources allocation & optimization:** shared equipment, facilities, and teams across locations

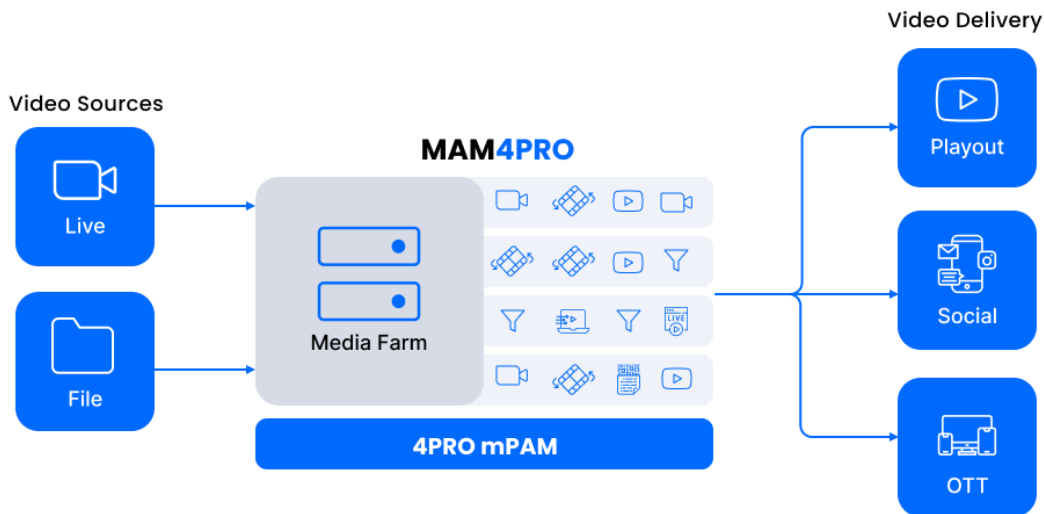
## Specially Designed For

- Educational/Government
- Live Entertainment/Worship
- Corporate
- Sports
- Film/TV Studio/Scripted
- Digital News
- Mobile Studios/OB Vans
- Digitalization
- Archiving
- Post-Production
- Television/Broadcasting
- OTT & Streaming
- System Integrators/Rentals

## Virtualization of Media Operations

Media production is increasingly distancing itself from dedicated hardware, and moving towards flexible cloud-based software, where all the applications share the same media farm, and can be accessed from any location, in real-time.

MAM4PRO gives producers the power to perform a multitude of tasks, centrally, while drastically reducing equipment usage.



### Main Benefits

- Each media operation will start when needed and stop as soon its job is complete
- It optimizes the resources required to perform all media operations
- Cloud environments can virtually run all types of media operations
- No virtual machines are required to dock the media operations
- Simplifies support and maintenance with automatic resource replacement in case of failure

## Media Operations

Benefit from a powerful set of media operations designed to solve your most pressing workflow challenges.

With MAM4PRO, it is possible to run different media operations simultaneously, thus guaranteeing a universe of distinct arrangements to meet the challenging day-to-day activities of media production companies.

Media operations include baseband ingest and record, file ingest and transcode, file preview and playout, live video stream, video encode and decode, live channel switching, and intercom.

Working this way with building blocks infrastructure where you use only the services you need and when you need them, MAM4PRO offers a genuinely future-proof ecosystem with elasticity and speed in mind.



### 4PRO mediaREC

Powerful and flexible multi-format SDI/IP recording system. 4PRO mediaREC is a video recorder micro-service software with full support for recording 4K UHD and HDR live video channels in different file formats for an enterprise farm.



### 4PRO mediaPLAY

Benefit from outstanding IP/SDI monitoring and playout. 4PRO mediaPLAY is a software micro-service that provides you an agnostic real-time playback system to ensure a straightforward quality control process and allows the user to playback and review a wide range of file-based content with broadcast quality in 4K, UHD, FHD, and NDI for an enterprise farm.



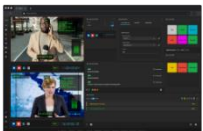
### 4PRO mediaMOVE

Professional multi-format, real-time transcoder service. 4PRO mediaMOVE is a software micro-service that can automatically ingest and transcode a wide range of 8K, 4K, UHD, FHD and NDI formats and codecs for an enterprise farm.



### 4PRO mediaLIVE

Manage all your live video streams in an integrated media production ecosystem. 4PRO mediaLIVE is a powerful and flexible encode and decode software micro-service to manage multiple 4K, UHD, FHD, and NDI channels for an enterprise farm.



### 4PRO mTALK

A stand-alone software micro-service that allows communication between all users who are associated in the same instance without the need for integration with third-party tools.



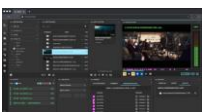
### 4PRO mSWITCH

A software micro-service that virtualizes the switcher and multi-camera control, giving your live and studio production the professional touch you need while being simple to use. With support for a wide range of camera inputs, the same platform covers all the stages of your production and distribution ecosystem without requiring dedicated hardware.

## Production Tools

MAM4PRO's workflow orchestration and management platform unifies the content chain across multiple and diverse production and distribution systems.

### 4PRO mMAM



As companies grow, so does their repository for media, often in disconnected systems and across geographic boundaries. With an online searchable library, collaborative production tools and mixed environment support (hybrid cloud or on-premises), mMAM provides a secure and cost-effective media management solution.

4PRO mMAM easily integrates with existing or new workflows, thanks to its scalable architecture, and ease of use.

Advanced packages allow users to create and share projects from the web interface and from extension panels inside Adobe Creative Cloud tools (Premiere, Photoshop, After Effects, InDesign, and Illustrator).



### 4PRO mPAM

Benefit from a state-of-the-art content and production asset manager tool with 4PRO mPAM. Streamline daily operations and empower your creative teams with the right tools to find, manage, track, enhance and deliver media files throughout the entire production ecosystem from a single interface.



### 4PRO mPLAN

Setup scheduled events not only from the standard scheduler but through a unique roll out view interface. 4PRO mPLAN is a tool that maintains a single rollout view of all scheduled events, allowing the management of the ingests process very efficiently. It manages multiple scheduled events across a variety of recording platforms in a multichannel environment using router control cross-points.

## Deploy Options

When designing workflows, there are multiple architecture options to choose from, each with its own advantages but also technical trade-offs. Measuring resources and choosing from one or another can prove daunting at first, but the good news is that there's a solution for everybody.

With MAM4PRO, decisions like this are not definite. You can choose to have your infrastructure on your premises, migrate completely to the cloud, or get the best of both worlds with a hybrid model.

MAM4PRO's extensible architecture can be designed to meet your operational, technical, and security needs. Explore below the multiple cloud and on-prem deployments available to your media workflows.



### Private Cloud

With MOG MAM4PRO you can have your own local data center. A private cloud is a private IT infrastructure for the dedicated use of a single organization, managed via internal resources. A private cloud is dedicated to the needs and goals of a single organization.



### Hybrid Cloud

Different sets of enterprise data require tailor-made solutions. A hybrid cloud offers the best of both worlds connecting public and private cloud. MAM4PRO Hybrid Cloud can assure you that some media operations can be run in the private cloud and others in a public cloud, guaranteeing maximum flexibility and collaboration, without compromising quality and security.



### Public Cloud

Migrate mission-critical workloads to a public cloud, with zero downtime, and make the transition into the next phase of digital innovation with less hassle. MAM4PRO allows for a fully virtualized ecosystem, compliant with the cloud providers such as Amazon, Microsoft, Google and Tencent, to ensure maximum flexibility in every step of the way.



### Media Farm

MAM4PRO gathers a set of media operations in a high-performance computer system that we call mFARM. You can choose from a set of powerful but compact media servers, that'll fit your workflow needs. MOG's mFARM is a turnkey solution that will give you the capability and maximum flexibility to perform multiple tasks in a single interface.



### Mobile Studio

Implement a complete mobile studio that can be managed by a single operator. Taking advantage of the unified user interface, the operator can easily handle all activities. With compact storage and high-performance servers, all necessary equipment can be mounted in the same rack.



### Unified Headend

Implement, improve, or refresh your broadcast or OTT infrastructure to match today's industry demands. MAM4PRO's unified headend supports every step of the media service generation for any industry that needs to ingest, playout, and deliver media, no matter its format.

The goal is to ensure high-quality and efficient service delivery across all screens, on any transport network, including IPTV, cable, satellite, DTT, and the internet.

## Plugins

Complement any media production and distribution workflow with turnkey plugins and extensions.



### Social-m

Quickly fetch and publish your live or VoD contents to social media.

This social media plugin for Chrome will let users ingest media without having to access the MAM4PRO GUI, allowing the content to be ready for editing or any other task, in no time. Simply open the plugin, insert the URL and run the workflow to fetch your video, with option to preserve metadata.



### Screen-m

Quickly capture and deliver your screen contents to your production environment.

Easily record your screen in its entirety or choose one of the open windows. You can even enable the capture of a microphone and the mouse cursor to make it easier to explain any presentation.

## Artificial Intelligence

Artificial intelligence engine to boost and facilitate media tasks even more.

Default (already included)	
Black frames detection	Voice activity detection
Video freeze detection	Silence detection
Black margins detection	Loudness detection
Audio clipping detection	Loudness balance
Audio mute detection	Vehicle detection
Audio phase detection	License plate detection
Audio mono detection	Concept tagger
Timecode gap detection	Bouncing boxes
Scene change detection	Update existing interplay entry with new metadata
Transformation	
Frame rate conversion	Crop black margins
Remove audio clicks	AI upscale
Remove audio clipping	Blur license plates

Additional AI Operations	
Face Recognition and Age Prediction	Optical Character Recognition
Object Detection	Speech Recognition

## Features

Features
<b>Timecode support</b>
LTC (SMPTE 12M)
VITC (SMPTE RP188)
Time of Day
<b>Serial Control Protocols</b>
VTR (BVW) - Serial
VTR (VDCP) - Serial
<b>Multiple LIVE and simultaneous records</b>
Crash Record operations
Gang Capture operations
Independent workflow selection in Gang Captures
Unique workflow for gang captures while using clipnaming with counters
Conceal/Hide option for unused Capture Instances
Synchronize (different) Gang Captures
Flexible Gang Capture channel configurations / Choose which channels are present in the gang
Frame Chase editing
Unlimited capture duration support
Loop record support
Extend a playlist's maximum duration in a Loop Record workflow
Perform Loop record captures through automatic jobs
Growing files support
Growing file support for Grass valley Edius Workgroup v.9 and X
Growing XDCAM MXF OP1a file support on Avid Media Composer <b>*required Nablet AMA Plugin</b>
Automatic Stream Control - Detect input streams and start recording automatically
Continuous recording support
Continuous live stream capture
Recording timer for captures
Abort or force stop a capture or a stream
Frame rate conversion option on Capture workflows
High Dynamic Range (HDR) support - HLG (arib std-b67) / PQ (SMPTE 2084)
High Frame Rate (HFR) up to 120fps (ST2081-10, ST2081-11, ST2082-10, ST2082-11 and ST2082-30)
Generate MP4 files as Fragmented MP4 via DCP Packager
Add XML sidecars with WAV file as output while recording
Perform "Run after completion" scripts
Remove source assets after Job completion for all plain sources
Live Probing option
Stream with Closed Captions
Edit a Workflow directly from the Player

## Features

- Input selection made directly from a dropdown list on the player
- Option to start timecode recording from 00:00:00:00
- Export in "MOG playlist" format (.XML Sidecar containing information about the chunks of the recorded media)
- Batch record support
- Deck control through Serial Ports
- Pre-roll and post-roll options
- LiveU NewsML batch capture
- LiveU NewsML metadata import
- LiveU NewsML - support XML from devices (Live U, Android and iPhone)
- LiveU include subfolder browse
- Contribution Web Video Player - Aspect marker, Safe Area Marker, and Center marker
- Player Overlay - Center Dot and Cross
- Support for Active Format Description (AFD)
- Medialoopster Integration in Capture operations
- Medialoopster Integration in Batch Capture operations

### Video Router Protocols

- Quartz
- Probel SW-P-08
- Jupiter ASCII
- Blackmagic Videohub Ethernet Protocol

### Operation modes

- Automatic
- Manual
- Scheduled

### Clipnaming

- Flexible file renaming engine
- Create diversified clipnaming templates
- Clipnaming based on Metadata Profiles
- Use of common labels (Id, label, Counter, Date, Original Source Name, Weekday, User)
- Field numeric representation of the day of the week
- Folder Structure creation
- Drag and Drop support
- Restore auto numbering on capture abort in naming templates
- "CreationDate" field can refer to a desired Time Zone
- Add the label "\_p" to proxy clips' names

### Multi-Configuration metadata management and enrichment

- An efficient internal asset management
- Quickly search for assets metadata
- Directly manage your assets metadata
- Generate metadata directly through capture operations
- Prevent the overwrite of metadata fields
- Protect metadata fields
- Delete custom metadata
- Edit group clips metadata
- Edit a file's source metadata based on a configured metadata profile
- "Description" field editable in metadata widget
- Set "Description" field as a column in the Asset Explorer list view
- Forward metadata to Gang Captures
- Favorite metadata fields
- Create custom metadata fields
- Add a "Rating" metadata field
- Update the source metadata directly through the metadata widget
- Add asset tags insertion in preset list
- Re-use lists of possible values
- Update Metadata in Media Central/Interplay using AMT-3 library
- Rename media in Interplay after a capture has begun
- Take field (counter)
- Support for "Reel" metadata field using Apple ProRes Wrapper
- Read metadata from pre-configured cloud storages (Amazon S3 / Google Cloud Storage / Tencent / IBM Cloud Object Storage)
- Preserve specific Arri fields
- Preserve RED digital cinema color information

## Features

### Find immediately and learn everything about any asset

- Show or hide proxies on Asset Browser
- Sort, order and search for files on Asset Browser
- Asset Explorer - Resizable thumbnails
- Asset Explorer - Support asset availability
- Search for all assets on Asset Explorer
- Extract thumbnails and posters while indexing on Asset Explorer
- Asset Explorer - Playable thumbnails
- Preview media with interactive Pop-up Players
- Asset Explorer - View the exact duration of files with more than 24 hours
- Asset Selection -View the total duration of the selected assets
- Configure the asset's preview duration
- Asset Selection - Add Numeric Input

### Asset management Check-in

- AVID AAF
- AVID interplay
- XML support
- XSLT transformation - XML sidecar
- Edit share flow
- Vizzi OTT check in
- Support for update on Vizzi OTT check-in

### Audio support

- PCM input and output support
- Dolby E-AC-3, Dolby TrueHD, and DTS input support
- Dolby-E Input and output support
- DTS Coherent Acoustics (DCA)
- Integration with Dante Audio Capture \*Negotiated separately
- PCM 96KHz support
- Independent audio encoder for hires and proxy
- Individually map your audio by output target
- Record audio only streams
- Payout audio only streams
- Loudness normalization (EBU R128)
- Audio downmixing & upmixing
- External audio files support (.WAV)
- MPEG-4 Audio (M4A) audio format as output
- Capture external AES audio through Bluefish capture cards
- Ability to mute proxy on the output

### Close captions

- CEA/EIA - 608
- Scenarist (SCC)
- Add sidecar - SubRip (SRT)
- Add sidecar - Fragmented WebVTT
- Add sidecar - ISMT/CMFT subtitles
- DCP subtitle burn-in (.SCC)
- Digital Cinema Package (DCP) open captioning
- Support DVB-S captions in streams
- Support captioning for OTT (CMFT, SubRip, and WebVTT)
- Stream with Closed Captions

### Locators

- Create locators with shortcut keys
- Edit and delete locators
- Edit the locators' description
- Insertion and viewing
- Create and freely customize action fields
- Insert comments in a marker's widget tab
- Locators source in markers widget
- Select multiple subcategories for a single locator
- Order asset locators by timecode
- Establish Absolute or Relative timecode for source locators
- Enter Timecode without the need of entering colons
- Eject locators using the player eject button

## Features

Merge locators

Support for locators with AMT captures

Send locators directly to Gang Captures

Send locators instantly to Playout

Preserve Metadata Enhancement locators created by an Automatic Job

### Scheduler (Calendar View)

Schedule a Record operation

Schedule a Playout operation

Schedule Automatic Jobs

Schedule Gang Captures

Schedule Playouts

Schedule Maintenance Tasks (Reboot, Export Logs, Export Full Backup)

Edit individual events

Export activity events

Allow editing of settings for each occurrence/repetition

Set the number of an event's repetitions

Check for collisions between events and repetitions

Ability to Ignore files before a start date

Placeholder when editing an occurrence name

Enable field event name as AVID Interplay clipname by default

Use pre-set naming templates

Send the assets to independent targets and multiple outputs

Establish a maximum capture duration

Configurable number of iterations when using maximum capture duration

Use AVID Interplay clip name as event name on crash record events

Pre-roll and post-roll options for scheduled events

Define events to be triggered on any day, on working days only or only on weekends

Set the Calendar Notion option to automatically adjust to daylight time

Edit the Start Time field after the first recording

Visualize scheduled events in a List View

Perform captures from a MOG S1000

Perform captures from an Airspeed 5000

Perform captures from a Softron Movie Recorder

### Scheduler (Record Grid) - Unifies in a single rollout view all ingest activities \*Optional

Schedule a Record operation

Schedule Gang Captures

Create new scheduled events directly from the timeline

Perform crash record captures directly from the grid view

Metadata Insertion availability

Use of pre-set naming templates

Edit scheduler individual events

Edit an event after it has started

Edit settings for each occurrence/repetition

Trigger Capture events (Any day, On Working Days or only on Weekends)

Adjust events by dragging them on the timeline

Check collision between events with repetitions

On channel settings assign an Input a workflow a router source and a duration and start recording on the fly

Change router source cross point from record scheduler during a live event

Change router source on rollout

Copy an event's name after it is complete

Perform captures from a MOG S1000

Selectable MOG S1000 capture profiles

Perform captures from an Airspeed 5000

Perform captures from a Softron Movie Recorder

Pre-roll and post-roll options for scheduled events

Configure the number of events repetitions

Define events to be triggered on any day, working days or weekends only

Set the Calendar Notion option to automatically adjust to daylight time

Expandable and collapsible views

Jump to date to seek events by day or in a 7 days period

Choose between AVID or MOG color schemes

Confirm a "Stop" action



## Features

### Scheduler (Playout Grid View) - Unifies in a single rollout view all Playout activities \*Optional

- Grid View for Playout
- Crash Playout directly from the Grid View
- Loop a playlist
- Schedule Clip Lists to be Played out
- Adjust to a desired Time Zone
- Ability to set a pre-determined number of repetitions
- Trigger Playout events (Any day, On Working Days or only on Weekends)

### Router Control

- Support for Black Magic Video Router
- Support for Grass Valley Sirius Video Router
- Support for Evertz Quartz Video Router
- Support for Jupiter ASCII
- Change router points directly on the player
- Capacity to setup the number of sources and destinations
- Option to choose to make use or not of a source
- Assign a mnemonic to each source
- Ability to provide an alternative name to a router mnemonic
- Assign in the crosspoint tab a source to each router destination
- Lock sources to each router destination
- Configurable connection through IP or host name to the destination router

### Signal error detection and related recovery actions

- Detect possible signal errors
- Detect possible drop frames
- Support for timecode breaks
- Configurable capture resume methodology
- Automatic streaming (headless) - Restart capture after stopping/crashing or rebooting

### Checksum media

- MD5 hash file
- MDL - Media hash list

### Live to Live

- Vizzi OTT Live Output
- Multiple resolutions check-in
- Support Time of Day in input streams (RTMP, MPEG-TS, RTP, SRT, RTSP, HLS, LLDASH, MSS, MPEG-DASH, CMAF)
- Support Live Stream from sCapture as rPlayout input
- Variable Frame Rate Input
- Support IGMPv3 multicast
- Add possibility to change the transport stream segments duration

### MPEG-TS Support

- Capture of MPEG-Transport Streams
- Support of MPEG-TS program IDs

### NDI

- Native NDI output
- NDI audio and video synchronized mechanism
- NDI discovery mechanism
- Capture multiple NDI sources
- Time of day and embedded timecode options in NDI input

### HLS

- Configurable HLS segment duration
- Configurable HLS Playlist segment count

### RTMP

- RTMP recording with absolute timecode
- RTMP Push Mode in input and output
- RTMP Pull Mode in input and output
- Native RTMP listener capability
- Multiple audio channels in RTMP Output
- HEVC, VP9 and AV1 codec in enhanced RTMP/FLV

### SRT

- Input modes: Caller, Listener, and Rendezvous
- SRT listener mode as stream output
- Output modes: Caller and Rendezvous
- Stream ID support



## Features

- Configurable latency settings
- Configurable overhead bandwidth
- Configurable passphrase
- Monitoring input metrics

### WebRTC

- h.264 Support
- VP8 Support
- VP9 Support

### Live switcher - Capture switcher producer

- Commute between channels while recording
- Record audio and video from one channel, or just audio or video
- Playout from SDI Inputs
- Playout from Streams Inputs
- Playout from File Inputs
- Overlay graphics support
- Chroma Key as Input

### File ingest

- Execute multiple simultaneous transcodes
- Batch ingest
- Card ingest
- Clip merge
- Clip renaming
- Disable Clip File Naming generation
- Ingest while growing
- Growing file support for Grass valley Edius Workgroup v.9 and X
- Partially restore clips
- Rough cut
- Establish priority levels
- Pause File Based ingest operations
- Insert Subclips SOM and EOM without colons
- Automatic drag and drop ingest
- Drag and drop media from several social networks
- Generate XML sidecar with WAV file as output while ingest
- Generate a .xml file for each output AVID clip or AVID sequence
- Merge as Sequence from MP4 proxy files
- Merge as sequence by sequence XML for MP4
- Automatically select workflows available in job control attending the source files
- Cut growing files and send them to (a playlist for) playout
- Directly select the storage on the dashboard instead of accessing workflow profiles
- Copy assets
- Group resulting assets into a single one
- Copy - Transfer sidecars if available
- Encode the contents according to the destination format
- Decode the contents according to the destination format
- Move assets
- Edit while transcoding/ingesting
- Place locators on growing files
- Multiple resolutions check-in
- Frame rate conversion
- Variable Frame Rate Input
- High Dynamic Range (HDR) support - HLG (arib std-b67) / PQ (SMPTE 2084)
- High Frame Rate (HFR) up to 120fps (ST2081-10, ST2081-11, ST2082-10, ST2082-11 and ST2082-30)
- Ability to perform "Run after completion" scripts
- Audio only OPAtom as output
- Opt to not overwrite files
- Support for .MOV files containing "Run-length encoding" video essence
- Enable "growing" support on EDL ingest workflow
- Timecode SUM of selected cuts
- Merge assets as EDL, regardless of the input's format
- Merge Trimmed files
- Merge files with different framerates
- Merge P2 with different audio channels

## Features

- Merge operations for Devices sources
- Allow the merge of more than 200 assets
- Support for spanned Panasonic P2 structure
- Preserve original time code breaks in Panasonic P2 Format
- Mute proxy option in output (requires proxy option)
- Create Edit Decision Lists with cut points
- View the total duration of the sub-clips in an EDL widget
- Ingest from cloud locations
- Digital Cinema Package (DCP) support
- Choose to force fragment MP4 clips while uploading to a S3 bucket
- Generation of MP4 files as fragmented MP4 with DCP packager
- Digital Picture Exchange (DPX) support
- Select IMF (Netflix Compliant) as the output metadata
- FTP for generic network devices as input
- Ability to delete OPAtom source files after ingest
- Support for GOPRO spanned files
- Support video with vertical rotation
- MOG file package support
- Support MOG Package from Cloud Storages
- Outgest growing media directly from Interplay
- Dual check in to interplay in a merge as sequence operation with the same MOBID for the sequences
- HDR (PQ, HLG) conversion to SDR as output
- Ingest image files
- Support 48fps drop frame media (DJI Camera Drones)
- Support for spanned clips
- XDCAM support for spanned & merge clips in network locations/network devices
- Add black bars to match the aspect ratio
- Delete an Output via Job Abort
- Schedule an Ingest operation through the Calendar via Automatic Jobs
- Ingest and/or transcode the contents according to the destination format
- Vubiquity assets support
- Support for Vizzi collections as input files
- Browse Avid Interplay folder structure from within the "Workflow selection window"
- Avid Sub Clip export referencing Growing Master Clip
- Generate Avid OPAtom assets to an FTP server
- Independent targets and multiple outputs
- Manage via web interface or REST APIs for integration with automation system
- Update Metadata in Media Central/Interplay using AMT-3 library
- Create Live Ingest Operations
- Live Sources made available in the Asset Browser/Explorer widgets
- Override start timecode
- Index clips with same name but with different metadata
- Exclude file extensions from File inputs

### Burn-In Video options

- Graphic burn-in while recording
- Graphic burn-in while ingesting
- Text (Position, Text color, Box Color, Font Size)
- Timecode (Position, Text color, Box Color, Font Size)
- Overlays support (images and videos positioning)
- LUT (Look-Up Table) - Save particular color grades as a template

### Quality control - Report

#### Video Report

- Black frames detection
- Video freeze detection
- Scene change detection

#### Audio Report

- Audio clipping detection
- Loudness detection
- Silence detection

#### Others

- Timecode gap detection

## Features

### Automated ingest

- Create Automatic Jobs
- Dynamic workflows using metadata fields
- Dynamic workflows with support for metadata without sidecars
- Delete Assets in Dynamic Jobs
- Support different input types on dynamic configurations
- Ignore files before a start date
- Re-process assets with the same name
- Support metadata enhancement workflows
- Vizzi Collections support

### File playback

- Simultaneous playback
- Composition play
- Instant play
- Gang Play
- Replay a group or an individual asset
- Loop playback
- Group Loop Playback
- Gridline (3x5) Overlay
- Remote preview
- Support for 10bit
- Synchronous SDI playback of multiple files
- Closed captions
- Cue mode
- Monitor - support HDR
- Option to add locators
- Play assets from cloud storages
- Preview Editing Decision Lists
- Preview Clip Lists
- Playback - 8K UHD
- Embedded VITC output support
- Step multiple frames forward and backwards on SDI/gang playback
- Timecode and metadata overlaying on SDI out
- Support for growing assets in player
- Support for spanned assets in player
- Timecode only monitoring
- Use of a contour shuttle to control an asset during playback
- Playback duration showing the remaining time of the clip
- Remove clips
- Reorder clips
- Export playlist
- Create new playlists with the current assets selection
- High Dynamic Range (HDR) support - HLG (arib std-b67) / PQ (SMPTE 2084)
- High Frame Rate (HFR) up to 120fps (ST2081-10, ST2081-11, ST2082-10, ST2082-11 and ST2082-30)
- Preview - Possibility to change the playback speed by multiplier factors
- Simple Time Delay: Scheduling a Playback of a Single File in Growing Recording Mode
- Read Metadata Timecode Package (Auto / Material Package / Source Package)

### Playout

#### Playout Preparation

- Build playlists in a Playlist Builder widget
- Create multiple Playlists
- Allow configuring playout clip action while preparing the playlist
- Support visual separators for rPlayout playlists
- Drag and Drop clips to the player for media preparation
- Support insertion of Timecodes without separators ":" in the playlist builder
- Use both types of TC (Relative and Absolute) for Mark-ins and mark-out at playlist builder
- Trim clips to be included in the Playlist
- Editable timecodes of the in and out points
- Re-arrange clips order
- Duplicate Edit Decision Lists
- Export Edit Decision Lists

## Features

### Playout Control

- Edit playlist on the fly and while playing
- Playlist countdown and clip countdown
- File and clip list progress bars
- Playout Capture streams through SDI and native window
- Print to tape
- Queue clip on the playlist
- Queue on first frame and last frame
- Queue on first frame the first clip of the playlist
- Bypass action for playout clips
- Pause Playlist
- Playout to stream
- Thumbnail preview of the current clip on the playlist and its remaining time until Playout of the next clip
- On Air - current loaded playlist name
- Loop a playlist
- Loop one or more assets in the playlist
- Drag and Drop Clip List entries in Playout Control
- Multi-channel playout capability
- Schedule Playout
- Choose between Playout Services available - rPlayerSDI or CasparCG
- Mini control bar for use with Playout Control
- Keyboard shortcuts for playout control and associated WEB player
- Autoplay option
- As Run Log's containing Date, Time, Clip name, Time Code In, and Time Code Out
- Prepare the Playout clip actions while preparing the playlist

### Input/output social media \*Optional

- Google Chrome Social-m Plugin
- Social-m - Add support for live stream capture
- Metadata in Chrome Social-m Plugin
- Capture to Facebook Live
- Stream to Facebook Live
- Stream to Twitch Live
- Capture to YouTube Live
- File based YouTube Upload
- Capture X (Twitter) Live
- Stream to X (Twitter) Live
- Upload to Vimeo
- Metadata social annotation and enhancement

### PAM - Production Asset Management \*Optional

- Advanced text search
- Asset browser permissions
- Asset collections
- Asset essences
- Asset essences for generic sources
- Asset comments
- Enable on-the-fly tagging
- Flexible metadata management
- Dynamic Automatic Jobs - Age value for CreationDate (Available for Copy, Move, Archive Workflows)
- Display of Essences File Paths
- Check-in via detector
- Check-in via metadata update
- Check-in via workflow
- Interactive approval workflows
- MOG player proxy
- Optional Proxy creation
- Manual Proxy creation
- Move option in asset collections
- Collections as input in automatic jobs
- Private and shared asset collections
- Show the creator of the collection
- Statistics for collections
- Save searches and filters

## Features

- Rich logging workflows
- User abstraction for in/out assets
- Instant play, anytime and anywhere of any asset (with or without proxy)
- Disk-to-Disk Storage Manager (Archive and Restore)

### Metadata Enhancement and preservation

#### Artificial Intelligence

##### Audio

- Audio clipping detection
- Loudness detection
- Silence detection
- Voice activity detection
- Audio mute detection
- Audio phase detection
- Mono audio detection

##### Video

- Black frames detection
- Video freeze detection
- Scene change detection
- Black Margins detection
- Flashing video detection

##### Object

- Concept tagger 2.0
- Vehicle detection
- License plate detection

##### Others

- Timecode gap detection
- Update existing interplay entry with new metadata
- Possibility to add bounding boxes to player

##### Transform

- Automatically Blur License Plates
- Black margins automatic crop
- Remove audio clicks
- Remove audio clipping
- AI Upscale
- Reduce video flashing

### Additional AI Operations \*Optional

- Face recognition 2.0
- Face recognition - Support dataset with multiple images for each person
- Age prediction detection
- Object detection 2.0
- Optical Character Recognition (OCR)
- Speech recognition 2.0 (with ability to detect non speech tokens)

### mTALK \*Optional

- Communicate via audio between two or more users
- QR code implementation
- WebApp (requires Android smartphone)
- Toggle Mode

### Analytics

- Integrate with Google Analytics and Tag Manager
- Enable or disable Analytics
- Keep track of menu events
- Receive video metrics
- Keep track of Job Control widget's events
- Keep track of Asset Explorer widget's events

### Improved security

- Support for Windows UAC
- Support for HTTP/HTTPS Ingress
- HTTPS (Hypertext Transfer Protocol Secure) for REST API
- Secure login
- User Impersonation
- Token based authentication
- Two-factor authentication

## Features

Remote services, system restart, and settings recovery features

DASH/HLS packager with DRM

Database replication

Opt to "Keep me signed in"

Send a User Verification through email

Configurable password visibility in logs

### Orchestration

Orchestration View for output workflows

Services Menu that eases Group and Cluster Configuration while displaying running services per node

### Transfer acceleration protocols

Aspera FASP transport technology - Transfer acceleration protocol

FileCatalyst direct - Transfer acceleration protocol

### Hardware acceleration \*If Hardware is installed or available

Intel QSV

Sony XAVC

Panasonic AVC-Ultra

Nvidia Nvenc

### General Purpose IN/OUT

GPI triggers supported

GPO triggers supported

### Additional Highlights

REST API - allows interaction with RESTful web services

Change Aspect Ratio (4:3 / 16:9 / 1.9:1 / 2:1 or use same as source)

Active Format Description (Option to Preserve, Discard or Override)

Protection against overwriting files

Notify user upon connection lost with the Server

Manage via web interface or REST APIs for integration with automation system

Configurable quality and target latency of the preview stream

Logging - Human readable information on Services logs

Logging - Add user information on flow actions

Logging - Structured Logging

Receive SMTP notifications via e-mail

Support an external Database

Microsoft Edge / Firefox / Safari and Chrome Support

### Unified Interface User Experience

Unified GUI for all services and group of servers in the farm

Configurable web interface access port

Embeddable Dashboards/Widgets

Environment Dashboard which enables an overview of group servers in workgroups

Web-Based Interface with video preview

Dashboards based experience where users can create their own personalized view

Dashboards presets for ease-of-use deployment

Create your own custom dashboard templates

Import and Export Users' Dashboards

Associate a single dashboard to multiple users

LDAP user authentication

User profile management

Users permissions control

Widget based modular interface

Lock/Unlock widgets permission

Choose between multiple interface themes (Midnight, Carbon, Dark or High contrast theme)

Touch screen mode

Monitoring - Advanced metrics

Multi Language Support

User tour

Show/Hide player overlays

Notifications of required actions needed to resume a workflow

Monitor Grouped Servers' activity in a Group Activity Widget

Remove the "quick edit" button from the Job Control Widget

(Set Permissions to) Activate or Deactivate Settings of a Gang Capture widget

**Features**

**Multiviewer**

- Define the quality and target latency of the preview stream
- Ability to control to up to 8 players in a single dashboard

**Maintenance**

**Scheduler**

- Reboot host or group
- Export database (backup) as a scheduled task
- Export logs as a scheduled task

**Activity**

- Export last activity
- Export all activity
- Export activity from a date range
- Clear all activity

**Logs**

- Export logs

**Backup**

- Export full backup - A full backup will create an archive of all the files and configurations
- Import full backup

**Dashboards**

- Export dashboards from one user or all users
- Import dashboards

**Data**

- Clean data usage
- Clean assets, flows and notifications
- Perform a Factory Data Reset
- Erase all data and reset the system
- Force clear cache

**Technical Specifications**

**Supported File Inputs**

**Inputs**

- ARRI ALEXA Cameras
- BlackMagic Cameras
- RED Digital Cinema
- Avid Files
- Avid Media Files (standalone or Nexis/ISIS)
- Avid Sequences (master clips and rendered sequences)
- Built in card reader for:**
- P2
- AU
- SxS
- XQD
- SD
- CANON DSLR 5D, 7D, C300, C100
- Generic File Shares
- GoPro Cards
- OnPrem**
- IKEGAMI GFPAK
- JVC (AVC HD models)
- NextoDI NSB-25
- Panasonic AU-EVA1 and GH5 Cameras
- Panasonic P2**
- AJ-PCD 2 / AJ-PCD 20/30/35 / AJ-MPD1
- AU-XP1E / AU-XP3EJ
- XDCAM EX:**
- Sony SxS (SBAC-UT100, SBAC-US10/20/30)
- XDCAM HD**
- Sony XDCAM HD: Disc (PDW-U1, PDW-U2, PDW-U4)
- XAVC Structures
- DJI (Camera Drones)
- HLS Structures
- MPEG-TS Structures
- MOG Package



**Inputs**

<b>OnPrem</b>	<b>Network</b>
	XDCAM Network
	P2 Network
	ARRI RAW Network
	Ikegami Network
	<b>VTR Decks</b>
	<b>Panasonic P2</b>
	AG HPG 20
	<b>XDCAM HD</b>
	Sony XDCAM HD: Disc (PDW 1500, PDW HD1500, PDW F70)
	<b>XDCAM Station</b>
	Sony XDS 1000
	<b>Storage</b>
	Avid ISIS / Nexis
	Avid Unity™ MediaNetwork
	DDP – Dynamic Drive Pool
	Facilis TerraBlock
Harmonic MediaGrid	
Editshare EFS	
NAS / SAS (SMB 2.0 and 3.0)	
Quantum StorNext	
ScaleLogic NX2 & ZX NAS Storage	
EMC Isilon	
QNAP	
Studio Network Solutions EVO	
Oracle Storage	
Netapp	
<b>Cloud</b>	<b>Social Media</b>
	Facebook
	X (Twitter)
	Vimeo
	YouTube
	<b>Professional Cloud Storages</b>
	Adobe Creative Cloud
	Amazon S3 Glacier
	Microsoft Azure Storage
	Tencent
	Lucidlink Cloud NAS
	Google Cloud Storage
	IBM Cloud Object Storage
	Generic S3 storages
	<b>Consumer Cloud Storages</b>
	Apple I Cloud Drive
	Dropbox
Google Drive	
Microsoft One Drive	

**Supported File Outputs**

**Outputs**

<b>OnPrem</b>	Avid ISIS / Nexis
	Avid Unity™ MediaNetwork
	DDP – Dynamic Drive Pool
	Facilis TerraBlock
	Harmonic MediaGrid
	Editshare EFS
	NAS / SAS (SMB 2.0 and 3.0)
	Quantum StorNext
	ScaleLogic NX2 & ZX NAS Storage
	EMC Isilon
	QNAP
	Studio Network Solutions EVO
	Oracle Storage

**Outputs**

<b>OnPrem</b>	Netapp
	FTP Servers (List on request)
	Generic File Shares
	<b>Removable Disks</b>
	HDD 2.5" SSD 2.5"
<b>Cloud</b>	<b>Consumer Cloud Storages</b>
	Apple I Cloud Drive
	Dropbox
	Google Drive
	Microsoft One Drive
	<b>Multiple and Adaptive bitrates for the OTT *Optional</b>
	<b>Professional Cloud Storages</b>
	Adobe Creative Cloud
	Amazon S3 Glacier
	Microsoft Azure Storage
	Tencent
	Lucidlink Cloud NAS
	Google Cloud Storage
	IBM Cloud Object Storage
	Generic S3 storages
	<b>Social Media *Optional</b>
	Facebook
	X (Twitter)
Vimeo	
YouTube	

**Supported Live Inputs**

**Inputs**

<b>Live</b>	<b>SD/HD/FHD-SDI</b>
	SD-SDI (SMPTE 259M)
	3G-SDI (SMPTE 292M, SMPTE296M, SMPTE372M, SMPTE425M)
	12G-SDI (SMPTE ST-2081/SMPTE ST-2082, SMPTE/2108-1)
	12G-SDI (Quad-Link 3G-SDI)
	Support for 8, 10 and 12 bits
	<b>Streams</b>
	Video Content Hyperlinks
	HLS
	MPEG-TS
	MPEG-DASH
	RTMP (with support for HEVC / VP9 / AV1)
	RTP
	RTSP
	NewTek NDI
	UDP
	Haivision SRT
	WebRTC
	Zixi
	<b>Audio</b>
	Dante Audio *Negotiated separately
	<b>Social Media</b>
	Facebook
	Twitch
	X (Twitter)
	YouTube
	<b>IP Live *If hardware is installed or available</b>
	ST2022-6
	ST2022-7
	ST2110-10, ST2110-20, ST2110-21, ST2110-30, ST2110-31
ST2110-40	
ST2110 - NMOS IS-04 and IS-05 support	

**Supported Live Outputs**

**Outputs**

<b>Live</b>	<b>SD/HD/FHD-SDI</b>
	SD-SDI (SMPTE 259M)
	3G-SDI (SMPTE 292M, SMPTE296M, SMPTE372M, SMPTE425M)
	12G-SDI UHD-SDI (SMPTE ST-2081/SMPTE ST-2082)
	12G-SDI (Quad-Link 3G-SDI)
	Support for 8, 10 and 12 bits
	<b>Streams</b>
	HLS
	HTTPS Push
	Microsoft Smooth Streaming
	MPEG-DASH
	Low Latency Dash - LL-Dash
	NewTek NDI
	MPEG-TS
RTMP (with support for HEVC / VP9 / AV1)	
RTP	
RTSP	
UDP	
<b>Live</b>	Haivision SRT
	WebRTC Live-m *Optional
	<b>Vizzi</b>
	Live Output
	<b>Social Media *Optional</b>
	Facebook
	Twitch
	X (Twitter)
	Vimeo
	YouTube
	<b>Multiple and Adaptive bitrates for the OTT *Optional</b>
	<b>IP Live *If hardware is installed or available</b>
	ST2022-7
	ST2110-10, ST2110-20, ST2110-21, ST2110-30, ST2110-31
ST2110-40	

**Formats**

**Input Formats**

**Input Video Formats**

ARRI ARRIRAW
Blackmagic RAW
Digital Cinema Packages (DCP)
Digital Picture Exchange (DPX)
RED Digital Cinema
IMX 30/40/50 Mbps
MPEG2 LGOP 18/25/35 Mbps 4:2:0
MPEG2 LGOP 50/70 Mbps 4:2:2
MPEG2 LGOP 422 50 Mbps
MPEG2 LGOP 420 1440x1080 35 Mbps
MPEG2 LGOP 420 (FULL) 35 Mbps
DVCAM 25 Mbps
XAVC Intra 50 / 100 Mbps
XAVC Intra 300 / 300 VBR / 480 / 480 VBR Mbps
XAVC LGOP 25 / 35 / 50 Mbps
XAVC LGOP 60 / 100 / 140 / 150 / 200 Mbps
DVCPRO 25/50 Mbps / DVCPRO HD 100 Mbps
AVC-Intra 50/100 Mbps
AVC-Intra 200 Mbps
AVC-Intra 2K422
AVC-Intra 4K422
AVC Ultra (LGOP 6/12/25/50 Mbps)
DNxHD (SQ/HQ/HQX/LB)

### Input Video Formats

DNxHR (SQ/HQ/HQX/LB)
H.264 4320P 80 - 150 Mbps High Profile
H.264 4320P 150 - 280 Mbps High Profile
H.264 2160p 35 - 68 Mbps High Profile
H.264 1440p 16 - 24 Mbps High Profile
H.264 1080p 8 - 12 Mbps High Profile
H.264 720p 5 - 7.5 Mbps High Profile
H.264 480p 2.5 - 4 Mbps High Profile
H.264 360p 1 - 1.5 Mbps High Profile
H.264 2160p 13 - 51 Mbps High Profile (Live)
H.264 1440p 6 - 18 Mbps High Profile (Live)
H.264 1080p 3 - 9 Mbps High Profile (Live)
H.264 720p 1.5 - 6 Mbps High Profile (Live)
H.264 480p 0.5 - 2.0 Mbps High Profile (Live)
H.264 360p 0.4 - 1.0 Mbps High Profile (Live)
H.264 240p 0.3 - 0.7 Mbps High Profile (Live)
H.264 L10 10 Mbps
H.264 MOG 1Mbps
H.265/HEVC 10 Mbps LGOP
H.265/HEVC 25 Mbps LGOP
H.265/HEVC 50 Mbps LGOP
H.265/HEVC 100 Mbps LGOP
H.265/HEVC 4K 25 Mbps LGOP
H.265/HEVC 4K 50 Mbps LGOP
H.265/HEVC 8K 25 Mbps LGOP
H.265/HEVC 8K 50 Mbps LGOP
H.265/HEVC 8K 100 Mbps LGOP
H.265/HEVC 4:2:2 LGOP
H.265/HEVC 4K 4:2:2 LGOP
H.265/HEVC 8K 4:2:2 LGOP
MPEG-5 EVC Baseline Profile
MPEG-5 EVC Main Profile
MPEG VVC/H266 Main Profile
ProRes 422 (SQ/HQ/LT)
ProRes 4444
ProRes 4444XQ
JPEG 2000 (Full HD)
JPEG 2000 (4K)
JPEG 2000 (8K)
Google® VP6 / VP7 / VP8 / VP9 (Full HD)
Google® VP9 (4K)
Google® VP9 (8K)
Uncompressed UYVY 422 / V210 / RGBA
AOMedia Video 1 (Full HD)
AOMedia Video 1 (4K)
AOMedia Video 1 (8K)
IMF (JPEG 2000 @ Full HD)
IMF (JPEG 2000 @ 4K)
IMF (JPEG 2000 @ 8K)

### Output Formats

#### Output Video Formats

IMX 30/40/50 Mbps
MPEG2 LGOP 18/25/35 Mbps 4:2:0
MPEG2 LGOP 50/70 Mbps 4:2:2
MPEG2 LGOP 422 50 Mbps
MPEG2 LGOP 420 1440x1080 35 Mbps
MPEG2 LGOP 420 (FULL) 35 Mbps
DVCAM 25 Mbps
XAVC Intra 50 / 100 Mbps
XAVC Intra 300 / 300 VBR / 480 / 480 VBR Mbps
XAVC LGOP 25 / 35 / 50 Mbps

Output Video Formats

XAVC LGOP 60 / 100 / 140 / 150 / 200 Mbps
DVCPRO 25/50 Mbps / DVCPRO HD 100 Mbps
AVC-Intra 50/100 Mbps
AVC-Intra 200 Mbps
AVC-Intra 2K422
AVC-Intra 4K422
AVC Ultra (LGOP 6/12/25/50 Mbps)
DNxHD (SQ/HQ/HQX/LB)
DNxHR (SQ/HQ/HQX/LB)
H.264 4320p 150 - 280 Mbps High Profile
H.264 4320p 80 - 150 Mbps High Profile
H.264 2160p 35 - 68 Mbps High Profile
H.264 1440p 16 - 24 Mbps High Profile
H.264 1080i 35 Mbps High Profile
H.264 1080p 8 - 12 Mbps High Profile
H.264 720p CBR - 6.5 Mbps High Profile
H.264 720p 5 - 7.5 Mbps High Profile
H.264 480p 2.5 - 4 Mbps High Profile
H.264 360p 1 - 1.5 Mbps High Profile
H.264 2160p 13 - 51 Mbps High Profile (Live)
H.264 1440p 6 - 18 Mbps High Profile (Live)
H.264 1080p 3 - 9 Mbps High Profile (Live)
H.264 720p 1.5 - 6 Mbps High Profile (Live)
H.264 480p 0.5 - 2.0 Mbps High Profile (Live)
H.264 360p 0.4 - 1.0 Mbps High Profile (Live)
H.264 240p 0.3 - 0.7 Mbps High Profile (Live)
H.264 1080p CBR 15 Mbps MAIN Profile
H.264 480p CBR 2.3 Mbps MAIN Profile
H.264 360p CBR MAIN Profile
H.264 432p CBR MAIN Profile
H.264 576p CBR MAIN Profile
H.264 720p CBR MAIN Profile
H.264 1080p CBR MAIN Profile
H.264 576p CBR - 3 Mbps MAIN Profile
H.264 720p CBR - 4 Mbps MAIN Profile
H.264 1080p CBR - 5Mbps MAIN Profile
H.264 15-30 Mbps MAIN Profile
H.264 L10 10 Mbps
H.264 WebRTC Baseline
H.265/HEVC LGOP 4:2:2
H.265/HEVC 10 Mbps LGOP
H.265/HEVC 25 Mbps LGOP
H.265/HEVC 50 Mbps LGOP
H.265/HEVC 100 Mbps LGOP
H.265/HEVC 4K 25 Mbps LGOP
H.265/HEVC 4K 50 Mbps LGOP
H.265/HEVC 8K 25 Mbps LGOP
H.265/HEVC 8K 50 Mbps LGOP
H.265/HEVC 8K 100 Mbps LGOP
NDI HX H.264 - High Profile
NDI HX H.265 - High Profile
MPEG-5 EVC Baseline Profile
MPEG-5 EVC Main Profile
MPEG VVC/H266 Main Profile
ProRes 422 (SQ/HQ/LT)
ProRes 4444
ProRes 4444XQ
JPEG 2000 (Full HD)
JPEG 2000 (4K)
JPEG 2000 (8K)
Google® VP6 / VP7 / VP8
Google® VP9 (Full HD)

### Output Video Formats

Google® VP9 (4K)
Google® VP9 (8K)
Uncompressed UYVY 422 / V210 / RGBA
AOMedia Video 1 (Full HD)
AOMedia Video 1 (4K)
AOMedia Video 1 (8K)
IMF (JPEG 2000 @ Full HD)
IMF (JPEG 2000 @ 4K)
IMF (JPEG 2000 @ 8K)

### Proxy Formats \*

#### Output Proxy Formats

XAVC LGOP 25 / 35 Mbps
AVC Ultra (LGOP 6/12/25 Mbps)
H.264 @ 500 Kbps Flash
H.264 @ 486p 1 / 1.5 Mbps Flash
H.264 360p @ 1.6 Mbps Flash
H.264 720 480p @ 8 / 10 Mbps Flash
H.264 720p @ 8 / 15 / 16 / 20 / 24 / 25 Mbps Flash
H.264 854 480p @ 8 / 10 Mbps Flash
H.264 960 540p @ 3 Mbps Flash
H.264 1080p @ 8 / 15 / 16 / 20 / 24 / 25 Mbps Flash
H.264 SD @ 4 / 8 / 15 / 20 / 25 Mbps
H.264 480p @ 0.5 - 2 Mbps High Profile (Live)
H.264 360p @ 0.4 - 1 Mbps High Profile (Live)
H.264 240p @ 0.3 - 0.7 Mbps High Profile (Live)
H.265/HEVC 10 Mbps LGOP
H.265/HEVC 25 Mbps LGOP
H.265/HEVC 50 Mbps LGOP
ProRes Proxy 1920x1080
ProRes Proxy 1280x720
ProRes Proxy 960x540
ProRes Proxy SD (16:9 Raster)
ProRes Proxy SD
MPEG-1 (layer 2) @ 1.5 Mbps
Avid MPEG-2 (SIF @ 2Mbps)
H.264 Interplay Web (SD, 800 Kbps, and 2 Mbps)
Sony Proxy AV (MPEG-4 Part-2) @1.5 Mbps

\* Optional output

### OTT Formats \*

#### Output OTT Formats

H.264 2160p 35 - 68 Mbps High Profile
H.264 1440p 16 - 24 Mbps High Profile
H.264 1080i 35 Mbps High Profile
H.264 1080p 8 - 12 Mbps High Profile
H.264 720p 5 - 7.5 Mbps High Profile
H.264 480p 2.5 - 4 Mbps High Profile
H.264 360p 1 - 1.5 Mbps High Profile
H.264 2160p 13 - 51 Mbps High Profile (Live)
H.264 1440p 6 - 18 Mbps High Profile (Live)
H.264 1080p 3 - 9 Mbps High Profile (Live)
H.264 720p 1.5 - 6 Mbps High Profile (Live)
H.264 480p 0.5 - 2.0 Mbps High Profile (Live)
H.264 360p 0.4 - 1.0 Mbps High Profile (Live)
H.264 240p 0.3 - 0.7 Mbps High Profile (Live)
H.264 360p CBR MAIN Profile
H.264 432p CBR MAIN Profile
H.264 576p CBR MAIN Profile
H.264 720p CBR MAIN Profile

**Output OTT Formats**

H.264 1080p CBR MAIN Profile
H.264 576p CBR - 3 Mbps MAIN Profile
H.264 720p CBR - 4 Mbps MAIN Profile
H.264 1080p CBR - 5Mbps MAIN Profile
H.265/HEVC 10 Mbps LGOP
H.265/HEVC 25 Mbps LGOP
H.265/HEVC 50 Mbps LGOP
H.265/HEVC 100 Mbps LGOP
H.265/HEVC LGOP 4:2:2
Google® VP9 (Full HD)
Google® VP9 (4K)

\* Optional output

**Product Integrations**

Editing Sytems	MAM / PAM / DAM	Cameras	CDN's
Adobe Premiere Pro	CatDV MAM	Canon (DSLR5D, DSLR 7D)	Lumen
AVID Media Composer	CatDV PAM	Canon (DSLR C300, DSLR C100)	Fastly
AVID Media Central UX	CatDV DAM	ARRI Alexa XT (ARRIRAW)	Akamai Technologies
AVID Media Central Cloud UX	eMAM Media Asset Management	ARRI Panasonic AU-EVA1	Microsoft Azure
Apple Final Cut Pro X	Telestream: Masstech	Panasonic GH5 Cameras	Cloudflare
Edius: Pro 8, Workgroup 9	AVID Interplay	Panasonic CX350 HEVC	Limelight Networks
BlackMagic: DaVinci Resolve Studio	AVID Media Central UX	Panasonic PTZ Cameras	Amazon CloudFront
Autodesk: Flame	AVID Media Central Cloud UX	Ikegami Gfpack	BootstrapCDN
Storage	AXLE MAM	JVC AVC HD camera models	StackPath
AVID ISIS Storage	Editshare Flow	LUMIX DC-S1H	KeyCDN
AVID Nexis Storage	MOG Vizzi	NewTek PTZ3 UHD Camera	Rackspace
Avid Unity™ MediaNetwork	Medialoopster MAM	NewTek PTZ3 Camera	Alibaba Cloud Content Delivery Service
Dynamic Drive Pool SAN Storage	Professional Cloud Storages	RED Digital Cinema	CacheFly
Facilis Terrablock	Adobe Creative Cloud	GOPRO	Verizon
Harmonic MediaGrid	Amazon EC2	Card Readers	Social Media *Optional
Quantum: Storenext	Amazon S3	Panasonic P2 (AJ PCD 2 / AJ MPD1)	Facebook
Scalelogic: NX2 & ZX NAS Storage	Amazon S3 Glacier	Panasonic P2 (AJ PCD 20/30/35)	Twitch
Editshare EFS	Microsoft Azure Storage	Panasonic P2 (AU-XPDI1E / AU-XPDI3EJ)	X (Twitter)
EMC: Isilon	Microsoft Azure Virtual Machines	Panasonic P2 (AG HPG 20)	YouTube
QNAP	Tencent: Cloud Storage	Sony XDCAM EX (SxS Cards): SBAC-US10/20/30	Vimeo
Studio Network Solutions: EVO	Lucidlink Cloud NAS	Sony XDCAM EX (SxS Cards): SBAC-UT100	Third Parties
Oracle Storage	Google Cloud Storage	Sony XDCAM EX (SxS Cards): MRW E-80	MOG S1000
Netapp	IBM Cloud Object Storage	Sony XDCAM EX (SxS Cards): MRW E-90	AVID Airspeed 500
Consumer Cloud Storages	Generic S3	Sony Disc Reader: PDW-U1, PDW-U2	Softron Movie Recorder 4
Dropbox	Video Router Control Protocols	VTR Decks	Peripheral Devices
Google Drive	<b>BlackMagic:</b> Videohub - Videohub Ethernet Protocol	XDCAM HD: Disc (PDW 1500, PDW HD1500)	Countour Shuttle Pro V2
Microsoft One Drive	<b>Evertz:</b> SONY HDS-X5800 - Evertz BRC controller (7700R-SC-BRC) (Quartz Protocol)	XDCAM HD: Disc (PDW F70)	Elgato Stream Deck
Apple I Cloud Drive	<b>Grass Valley:</b> Trinx 5122 - CM4000 GrassValley Router Control (Jupiter ASCII protocol)	XDCAM Station (XDS1000)	Stream
Transfer Acceleration Protocols	<b>Grass Valley:</b> Sirius 840 - Router Control module 2464 (Probel SW-P-08 Protocol)	Hyperversers	Newtek NDI
File Catalyst Direct	Structures	Microsoft HyperV	Haivision SRT
IBM: Aspera File Transfer	XAVC Structures	VMWare ESX	Zixi
Archive	Audio		
Archware P5	Dante *Negotiated separately		



## Products

Choose from the products below to customize the MAM4PRO according to your business rules.

### Media Operations

Benefit from a powerful set of media operations designed to solve your most pressing workflow challenges.

Segment	Model	Part Number	Product	Description
<a href="#">Media operations</a>	Yearly fee	4pmoac1y	4PRO mediaREC	Record
			4PRO mediaPLAY	Monitoring and playout
			4PRO mediaMOVE	Ingest and transcode
			4PRO mediaLIVE	Encode and decode
			4PRO mTALK	Intercom
			4PRO mSWITCH	Live channel switcher
	Monthly fee	4pmoac1m	4PRO mediaREC	Record
			4PRO mediaPLAY	Monitoring and playout
			4PRO mediaMOVE	Ingest and transcode
			4PRO mediaLIVE	Encode and decode
			4PRO mTALK	Intercom
			4PRO mSWITCH	Live channel switcher

### Production Tools

Tools for asset management and workflow orchestration.

Segment	Model	Part Number	Product	Description
<a href="#">Production Tools</a>	Yearly fee	4pmmac1y	4PRO mMAM	Media asset manager
		4pmpac1y	4PRO mPAM	Content and production asset manager
		4pmnac1y	4PRO mPLAN	Scheduler & Router Control
	Monthly fee	4pmmac1m	4PRO mMAM	Media asset manager
		4pmpac1m	4PRO mPAM	Content and production asset manager
		4pmnac1m	4PRO mPLAN	Scheduler & Router Control

### Add-ons

Output options to complement your workflows.

Model	Part Number	Product	Description
Yearly fee	4pooac1y	Proxy generation	Simultaneous proxy creation
		OTT live ingest	Multiple output resolutions for OTT
		Social media sharing	Simultaneous social media shares
Monthly fee	4pooac1m	Proxy generation	Simultaneous proxy creation
		OTT live ingest	Multiple output resolutions for OTT
		Social media sharing	Simultaneous social media shares

### Plugins

Complement any media production and distribution workflow with turnkey plugins and extensions.

Segment	Model	Part Number	Product	Description
<a href="#">Plugins</a>	Yearly fee	4ppiac1y	Social-m	Social media capture & Publishing
			Screen-m	Screen capture & Delivery
	Monthly fee	4ppiac1m	Social-m	Social media capture & Publishing
			Screen-m	Screen capture & Delivery

**Artificial Intelligence**

Artificial intelligence engine to boost and facilitate media tasks even more.

Segment	Model	Part Number	Product
<a href="#">Artificial intelligence</a>	Yearly fee	4paifr1y	Face Recognition and Age Prediction
		4paiod1y	Object Detection
		4paicr1y	Optical Character Recognition
		4paisr1y	Speech Recognition
	Monthly fee	4paifr1m	Face Recognition and Age Prediction
		4paiod1m	Object Detection
		4paicr1m	Optical Character Recognition
		4paisr1m	Speech Recognition

Contact our sales team at [sales@mog-technologies.com](mailto:sales@mog-technologies.com) to find out how to purchase or in case you need more information.

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