

mDECK Grand av

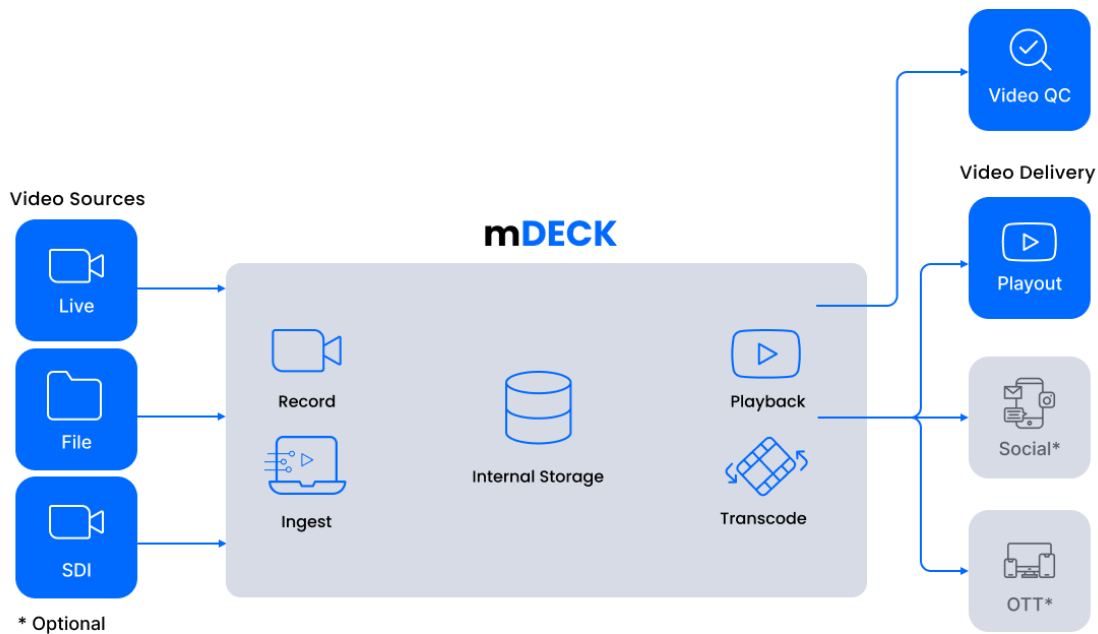


Overview

Streamline your workflows with mDECK Grand av, an all-in-one deck appliance that can combine operations of record, ingest, transcode, and playback content in 4K, UHD, FHD, and NDI. All in a single box, with an additional XAVC & AVC-Ultra hardware encoder accelerator.

This flexible media deck easily performs hybrid workflows (file-based and live), supporting the most used formats on the market, and allows users to work together as a group.

Additionally, it comes with local storage of 32TB, PSU redundancy, and an OS Drive.



Highlights

- mPAM - Content and production asset manager for up to 6 users
- mPLAN - Scheduler & Router Control of up to 16 channels
- mSWITCH - Remote live switching and compositing
- mTALK - Audio communication between users
- Live to live - multiple simultaneous records
- Closed captions
- Multiple simultaneous transcodes
- Automated file ingest
- Media checksum
- File playback - multiple simultaneous plays
- Metadata preservation, enhancement, and enrichment
- Playlist management
- Quality control, audio, and video report
- Flexible file naming and renaming engine
- Locators support
- Batch capture
- Supports spanned clips
- Proxy generation
- Playout preparation and control
- Improved security
- Artificial engine

Specially Designed For

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

Features

Features
Timecode support
LTC (SMPTE 12M)
VITC (SMPTE RP188)
Time of Day
From VTR (BVW) - Serial
Multiple LIVE and simultaneous records
Crash Record operations
Gang Capture operations
Independent workflow selection in Gang Captures
Unique workflow for gang captures while using clipnaming with counters
Hide unused Capture Instances
Synchronized gang captures
Ability to choose which channels are present in the gang
Frame Chase editing
Unlimited capture duration support
Loop record support
Extend playlist maximum duration in Loop Record workflows
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 *required Nablet AMA Plugin
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
Generation of MP4 files as fragmented MP4 with DCP packager
Generate XML sidecars with WAV file as output while recording
Perform "Run after completion" scripts
Live Probing option
Stream Closed Captions
Edit a Workflow directly from the Player
Option to start timecode recording from 00:00:00:00
Export MOG playlist (.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
Operation modes
Automatic
Manual
Scheduled
Clipnaming
Flexible file renaming engine
Create multiple and diverse Clipnaming templates
Clipnaming based under 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
Time Zone Support when the "CreationDate" field is selected
Support to append "_p" to proxy clip names
Multi-Configuration metadata management and enrichment
Internal asset management
Quickly search for assets metadata
Metadata management
Metadata generation on capture operations
Metadata fields - prevent overwrite
Protection of metadata fields
Delete custom metadata
Edit group clip metadata
Edit source metadata based on a metadata profile
"Description" field editable in metadata widget
"Description" field as a column in the asset explorer list view
Send metadata to Gang Captures
Favorite metadata fields
Create custom metadata fields
Rating metadata field
Metadata source update directly in the metadata widget
Add asset tags insertion in preset list

Features

- Support re-using lists of possible values
- Update Metadata in Media Central/Interplay using AMT-3 library
- Ability to rename media in Interplay after capture began
- Take field (counter)
- Support for "Reel" metadata field using Apple ProRes Wrapper
- Read metadata from cloud storage (Amazon S3 / Google Cloud Storage / Tencent / IBM Cloud Object Storage)
- Preserve Arri specific fields
- Preserve RED digital cinema color information

Find immediately and learn everything about any asset

- Asset Browser - Show/hide proxies
- Asset Browser - Sort, order, and search
- Asset Explorer - Resizable thumbnails
- Asset Explorer - Support asset availability
- Asset Explorer - Search all
- Asset Explorer - Extraction of thumbnails and posters while indexing
- Asset Explorer - Playable thumbnails
- Asset Explorer - Pop-up player
- Asset Explorer - View the exact duration of files with more than 24 hours
- Asset Selection -View the total duration of the selected assets
- Asset Selection - Configurable asset 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

Audio support

- Input and output PCM support
- Input support for Dolby E-AC-3, Dolby TrueHD, and DTS
- Input and output Dolby-E support
- DTS Coherent Acoustics (DCA)
- Support PCM 96KHz
- Independent audio encoder for hires and proxy
- Individual audio mapping by output target
- Record audio only streams
- Playout audio only streams
- Loudness normalization (EBU R128)
- Audio downmixing & upmixing
- External audio files support (.WAV)
- MPEG-4 Audio (M4A) audio format as output
- Mute proxy option in 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 Closed Captions

Locators

- Create locators with shortcut keys
- Edit and delete locators
- Edit locators description
- Insertion and viewing
- Action fields creation and customization
- Comments insertion in a markers widget tab
- Locators source in markers widget
- Multiple subcategories for a locator
- Order asset locators by timecode
- Absolute timecode for source locators
- Enter Timecode without the need of entering colons
- Eject locators using the player eject button
- Locators merge
- Support for locators with AMT captures
- Send locators to gang captures
- Send locators to playout
- Preserve Metadata Enhancement locators created by an Automatic Job

Scheduler (Calendar View)

- Scheduled Record
- Scheduled Automatic Jobs via Scheduler
- Edit individual events
- Allow editing of settings for each occurrence/repetition
- Configure the number of events repetitions

Features

- Check collision between events with repetitions
- Placeholder when editing an occurrence name
- Enable field event name as AVID Interplay clipname by default
- Pre-set naming templates
- Independent targets and multiple outputs support
- Capability to set 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
- Possibility to use the calendar notion option in order to adjust for daylight saving time automatically
- Ability to edit Start Time field after the first recording
- Visualize scheduled events in a List View
- Export activity events
- Perform captures from a MOG S1000
- Perform captures from an Airspeed 5000
- Perform captures from a Softron Movie Recorder

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
- Time zone Support
- Ability to set a pre-determined number of repetitions
- Trigger Playout events (Any day, On Working Days or only on Weekends)

Signal error detection and related recovery actions

- Signal error detection
- Drop frame detection
- Timecode breaks support
- 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

- Delete artifacts on abort
- 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

MPEG-TS Support

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

NDI

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

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

SRT

- Input modes: Caller, Listener, and Rendezvous
- SRT listener mode as stream output
- Output modes: Caller and Rendezvous
- Stream ID support
- Configurable latency settings
- Configurable overhead bandwidth
- Configurable passphrase
- Monitoring input metrics

WebRTC

- Live-m stream input *Optional
- Integration with Live-m WebApp *Optional
- 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

Features

Overlay graphics support
Chroma Key as Input
File ingest
Multiple simultaneous transcodes
Batch ingest
Card ingest
Clip merge
Clip renaming
Disable Clip File Naming generation
Partial restore
Rough cut
Insert Subclips SOM and EOM without colons
Automatic drag and drop ingest
Drag and drop from 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
Automatically select workflows available in job control attending the source files
Allow the creation of clip cuts in growing files to be added to a playlist for playout
Directly select the storage on the dashboard instead of accessing workflow profiles
Copy assets
Group Assets - Group the resulting outputs into a single asset
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 ingest
Use 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
Do not overwrite files option
Support for .MOV files containing "Run-length encoding" video essence
Enable "growing" support on EDL ingest workflow
Merge as EDL independent of input format
Merge Trimmed files
Merge files with different framerates
Merge P2 with different audio channels
Allow 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)
Edit decision lists with cut points
Display the total duration of sub-clips on Edit Decision List widget
Ingest from cloud locations
Digital Cinema Package (DCP) support
DCP Packager - Possibility to force fragmented MP4 while uploading to S3 buckets
Generation of MP4 files as fragmented MP4 with DCP packager
Digital Picture Exchange (DPX) support
IMF (Netflix Compliant) output metadata
FTP for generic network devices as input
Ability to delete OPAtom source files
Support for GOPRO spanned files
Support video with vertical rotation
MOG file package support
Support MOG Package from Cloud Storages
Outgest growing media from Interplay
HDR (PQ, HLG) conversion to SDR as output
Support for image files ingest
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 respect aspect ratio
Delete Output on Job Abort
Schedule ingest (Calendar) - Automatic Job
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
Update Metadata in Media Central/Interplay using AMT-3 library
Live Ingest Operations
Live sources available in asset browser/explorer

Features

Override start timecode

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

Automated ingest

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

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

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

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)

Playlist

Playlist Preparation

Build playlists in a Playlist Builder widget

Create multiple Playlists

Allow configuring playlist clip action while preparing the playlist

Support visual separators for rPlaylist 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

Playlist Control

Edit playlist on the fly and while playing

Playlist countdown and clip countdown

Features

- 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 Twitter Live
- Stream to Twitter Live
- Upload to Vimeo
- Metadata social annotation and enhancement

PAM - Production Asset Management

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

Metadata Enhancement and preservation

Artificial Intelligence

- Object detection
- Concept tagger
- Face recognition
- Speech recognition (with ability to detect non speech tokens)
- Vehicle detection
- License plate detection
- Optical Character Recognition (OCR)
- Age prediction detection

Audio

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

Features

Video

- Black frames detection
- Video freeze detection
- Scene change detection
- Black Margins detection
- Flashing video 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
- Auto video crop black margins

mTALK

- Audio communication between users
- QR code implementation
- WebApp (requires Android smartphone)
- Toggle Mode

Analytics

- Google Analytics and Tag Manager integration
- Option to enable and disable Analytics
- Track menu events
- Video metrics
- Track job control widget events
- Track asset explorer widget 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
- Remote services, system restart, and settings recovery features
- DASH/HLS packager with DRM
- "Keep me signed in" login option

Transfer acceleration protocols

- Aspera FASP transport technology - Transfer acceleration protocol
- FileCatalyst direct - Transfer acceleration protocol

Hardware acceleration *If Hardware is installed or available

- 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)
- 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
- Support an external Database
- Microsoft Edge / Firefox and Chrome Support

Unified Interface User Experience

- 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 custom dashboard templates
- Import and export of users Dashboards
- Associate same dashboards to multiple users
- LDAP user authentication
- User profile management
- Users permissions control
- Widget based modular interface
- Lock/Unlock widgets permission
- High contrast theme
- Touch screen mode
- Monitoring - Advanced metrics
- Multi Language Support
- User tour

Features

Show/Hide player overlays
Notifications of required actions needed to resume a workflow
View which servers in a group are running Capture and Ingest Operations in a Group activity widget
Possibility to remove quick edit button from Job Control widget
Permissions to activate or deactivate settings of Gang Capture widget
Multiviewer
Configurable quality and target latency of the preview stream
Ability to control to up to 4 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
Factory data reset
Erase all data and reset the system
Force clear cache

Technical Specifications

Supported File Inputs

Inputs

	Plain Files or Structures
	ARRI ALEXA Cameras
	BlackMagic Cameras
	RED Digital Cinema
	Avid Files
	Avid Media Files (standalone or Nexis/ISIS)
	Avid Sequences (master clips and rendered sequences)
	CANON DSLR 5D, 7D, C300, C100
	GoPro Cards
	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-XPDI1E / AU-XPDI3EJ
	XDCAM EX:
OnPrem	Sony SxS (SBAC-UT100, SBAC-US10/20/30)
	XDCAM HD
	Sony XDCAM HD: Disc (PDW-U1, PDW-U2)
	XAVC Structures
	DJI (Camera Drones)
	HLS Structures
	MPEG-TS Structures
	Network
	XDCAM Network
	P2 Network
	ARRI RAW Network
	Ikegami Network
	Storage
	Avid ISIS / Nexis
	Avid Unity™ MediaNetwork
	DDP – Dynamic Drive Pool
	Facilis TerraBlock
	Harmonic MediaGrid

Inputs

OnPrem	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
Cloud	Netapp
	Social Media
	Facebook
	Twitter
	Vimeo
	YouTube
	Professional Cloud Storages
	Adobe Creative Cloud
	Amazon S3 Glacier
	Microsoft Azure Storage
	Tencent
	Lucidlink Cloud NAS
	Google Cloud Storage
	IBM Cloud Object Storage
	Generic S3 storages
	Consumer Cloud Storages
	Apple I Cloud Drive
	Dropbox
	Google Drive
	Microsoft One Drive

Supported File Outputs

Outputs

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

Supported Live Inputs

Inputs	
Live	SDI
	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)
	Streams
	Video Content Hyperlinks
	HLS
	MPEG-TS
	MPEG-DASH
	RTMP
	RTP
	RTSP
	NewTek NDI
	UDP
	Haivision SRT
	WebRTC
	Social Media
	Facebook
	Twitch
	Twitter
	YouTube
	Vimeo

Supported Live Outputs

Outputs	
Live	SDI
	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)
	Streams
	HLS
	Microsoft Smooth Streaming
	MPEG-DASH
	Low Latency Dash - LL-Dash
	NewTek NDI
	MPEG-TS
	RTMP
	RTP
	RTSP
	UDP
	Haivision SRT
	WebRTC
	Social Media *Optional
	Facebook
	Twitch
	Twitter
	Vimeo
YouTube	
Multiple and Adaptive bitrates for the OTT *Optional	

Formats

Input Formats

Input Formats

ARRI ARRIRAW
Blackmagic RAW
Digital Cinema Packages (DCP)
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 / 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 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 / 25 / 50 / 100 Mbps LGOP
H.265/HEVC 4K 25 / 50 Mbps LGOP
H.265/HEVC 8K 25 / 50 / 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
NewTek NDI HX H.264 HX - High Profile
NewTek NDI HX H.265 HX - High Profile
ProRes 422 (SQ/HQ/LT)
ProRes 4444
ProRes 4444XQ
JPEG 2000 (Full HD)
JPEG 2000 (4K / 8K)
Google® VP6 / VP7 / VP8 / VP9 (Full HD)
Uncompressed UYVY 422 / V210 / RGBA
AOMedia Video 1 (Full HD)
AOMedia Video 1 (4K / 8K)
IMF (JPEG 2000 @ Full HD)
IMF (JPEG 2000 @ 4K / 8K)

Output Formats

Output 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
 XAVC LGOP 60 / 100 / 140 / 150 / 200 Mbps
 DVCPRO 25/50 Mbps / DVCPRO HD 100 Mbps
 AVC-Intra 50 / 100 / 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 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 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 / 25 / 50 / 100 Mbps LGOP
 H.265/HEVC 4K 25 / 50 Mbps LGOP
 H.265/HEVC 8K 25 / 50 / 100 Mbps LGOP
 NewTek NDI|HX
 H.264 HX - High Profile
 H.265 HX - High Profile
 ProRes 422 (SQ/HQ/LT)
 ProRes 4444
 ProRes 4444XQ
 JPEG 2000 (Full HD)
 JPEG 2000 (4K / 8K)
 Google® VP6 / VP7 / VP8
 Google® VP9 (Full HD)
 Google® VP9 (4K / 8K)
 Uncompressed UYVY 422 / V210 / RGBA
 AOMedia Video 1 (Full HD)
 AOMedia Video 1 (4K / 8K)
 IMF (JPEG 2000 @ Full HD)
 IMF (JPEG 2000 @ 4K / 8K)

Proxy Formats

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)
 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 MOG 1Mbps
 H.264 Interplay Web (SD, 800 Kbps, and 2 Mbps)
 Sony Proxy AV (MPEG-4 Part-2) @1.5 Mbps

OTT Formats *

OTT Formats

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.265/HEVC 10 Mbps LGOP
 H.265/HEVC 25 / 50 / 100 Mbps LGOP
 H.265/HEVC LGOP 4:2:2
 Google® VP9 (Full HD / 4K)

* Optional output

Product Integrations

Editing Systems	MAM / PAM / DAM	Cameras	Consumer Cloud Storages
Adobe Premiere Pro	CatDV MAM	Canon (DSLR5D, DSLR 7D)	Dropbox
AVID Media Composer	CatDV PAM	Canon (DSLR C300, DSLR C100)	Google Drive
AVID Media Central UX	CatDV DAM	ARRI Alexa XT (ARRIRAW)	Microsoft One Drive
AVID Media Central Cloud UX	eMAM Media Asset Management	Panasonic AU-EVA1	Apple I Cloud Drive
Apple Final Cut Pro X	Telestream: Masstech	Panasonic GH5 Cameras	CDN's
Edius: Pro 8, Workgroup 9	AVID Interplay	Panasonic CX350 HEVC	Lumen
BlackMagic: DaVinci Resolve Studio	AVID Media Central UX	Panasonic PTZ Cameras	Fastly
Autodesk: Flame	AVID Media Central Cloud UX	Ikegami Gfpack	Akamai Technologies
Storage	AXLE MAM	JVC AVC HD camera models	Microsoft Azure
AVID ISIS Storage	Editshare Flow	LUMIX DC-S1H	Cloudflare
AVID Nexis Storage	MOG Vizzi	NewTek PTZ3 UHD Camera	Limelight Networks
Avid Unity™ MediaNetwork	Medialoopster MAM	NewTek PTZ3 Camera	Amazon CloudFront
Dynamic Drive Pool SAN Storage	Professional Cloud Storages	RED Digital Cinema	BootstrapCDN
Facilis Terrablock	Adobe Creative Cloud	GOPRO	StackPath
Harmonic MediaGrid	Amazon EC2	Card Readers	KeyCDN
Quantum: Storenext	Amazon S3	Panasonic P2 (AJ PCD 2 / AJ PCD 20/30/35)	Rackspace
Scalelogic: NX2 & ZX NAS Storage	Amazon S3 Glacier	Panasonic P2 (AJ MPD1)	Alibaba Cloud Content Delivery Service
Editshare EFS	Microsoft Azure Storage	Panasonic P2 (AU-XPDI1E / AU-XPDI3EJ)	CacheFly
EMC: Isilon	Microsoft Azure Virtual Machines	Panasonic P2 (AG HPG 20)	Verizon
QNAP	Tencent: Cloud Storage	Sony XDCAM EX (SxS Cards): SBAC-US10/20/30	Social Media *Optional
Studio Network Solutions: EVO	Lucidlink Cloud NAS	Sony XDCAM EX (SxS Cards): SBAC-UT100	Facebook
Oracle Storage	Google Cloud Storage	Sony XDCAM EX (SxS Cards): MRW E-80	Twitch
Netapp	IBM Cloud Object Storage	Sony XDCAM EX (SxS Cards): MRW E-90	Twitter
Transfer Acceleration Protocols	Stream	Sony Disc Reader: PDW-U1, PDW-U2	YouTube
File Catalyst Direct	Newtek NDI	VTR Decks	Vimeo
IBM: Aspera File Transfer	Haivision SRT	XDCAM HD: Disc (PDW 1500, PDW HD1500)	
Peripheral Devices	WebRTC Live-m *Optional	XDCAM HD: Disc (PDW F70)	
Countour Shuttle Pro V2	Structures	XDCAM Station (XDS1000)	
Elgato Stream Deck	XAVC Structures		

Server Options

Features		Specs	
System	Platform	Dell R750	
	GPU	2x Nvidia A2	
	Video IO	2x DeckLink 8K Pro	
	AVC Hardware Encoder	2x Matrox	
	Storage Drive	32TB HDD	
	Operating System Drive	480GB RAID 1	
	Operating System	Windows 10 Enterprise (LTSC)	
Connectivity	Networking	1Gb Ethernet Port	2
		10Gb Ethernet Port SFP+	2
	Video	VGA Out	1
	USB	2.0	1
		3.0	1
	BNC 12G In/Out		8
	Ref. In		2
Power Requirements		Dual 1400W	
Extended Connectivity	Peripheral Board**	LTC Input	1
		Audio Out	1
		Breakout Connector	1
	Breakout Cable	RS422	4
		GPO branch with 4 outputs GPI branch with 4 inputs	1
Other	Dimensions & Weight	2RU, 772x482x86.8mm (D, W, H), ~40 kg	
	Delivery Packaging	970x660x310mm (D, W, H), ~45Kg	
	Temperature	Storage	-40°C to 65°C (-40°F to 149°F)
		Continuous Operation	10°C to 35°C (50°F to 95°F)
	What is Included	Power Cable	2x C13 to C14
	Other	Static rails for 2/4-post racks	

Concurrent Media Operations

With mDECK Grand av, 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 recording, ingest, transcoding, playback, file preview, live channel switching, and intercom.

mDECK Grand av supports up to 16 media operations at the same time. Within this margin, you can combine the operations shown in the table below:

Concurrent Media Operations					
Record	Ingest & Transcode	Playback	File Preview	Live Switch	Intercom
Up to 16 live channels	Up to 4 operations	Up to 8 playback files	Up to 5 files preview	Up to 1 live switch	Up to 1 operation

Note: when using operations dependent on video inputs and outputs, the physical limit of the video cards must be respected. Thus, the sum of these operations cannot be greater than 8, but when using the AVC encoder, the limit is 4 UHD.

Product

Part Number	Product	Description
mdgrav	mDECK Grand av	Deck appliance for hybrid workflows with additional XAVC & AVC-Ultra hardware encoder accelerator of up to 16 combined media operations

Available Options

Choose from the products below to customize the mDECK Grand av according to your business rules.

Add-ons

Output options to complement your workflows.

Part Number	Product	Description
groasa	OTT & Social media	Multiple output resolutions for OTT & Simultaneous social media shares

Note: Adding optional features might affect the number of simultaneous operations.

Plugins

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



Live-m

Create powerful, engaging videos from any location with your mobile device.

Live-m makes it easy to send streams from and to any mobile device directly into mDECK. Configure your rooms, and invite as many users as you want, from anywhere on the globe.



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 mDECK 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.

Part Number	Product	Description
lmpi	Live-m plugin	Mobile acquisition & Streaming
smpi	Social-m plugin	Social media capture & Publishing
scpi	Screen-m plugin	Screen capture & Delivery

Note: Adding optional features might affect the number of simultaneous operations.

Artificial Engine

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

Default (already included)	
Black frames detection	Transformation
Video freeze detection	Frame rate conversion
Black margins detection	
Audio clipping detection	
Audio mute detection	
Audio phase detection	
Audio mono detection	
Timecode gap detection	
Update existing interplay entry with new metadata	

Pack 2 - Object detections	
Object detection	Transformation
Vehicle detection	Blur License Plates
License plate detection	
Concept tagger	
Bouncing Boxes	

Pack 1 - Audio & Video analysis	
Scene change detection	Transformation
Voice activity detection	Remove audio clicks
Silence detection	Remove audio clipping
Loudness detection	Crop black margins
Loudness balance	AI Upscale
	Frame rate conversion AI

Pack 3 - Event recognitions	
Speech recognition	
Face recognition	
Age prediction	
Optical Character Recognition (OCR)	

Part Number	Product	Description
aip1	Artificial engine 1	Audio & Video analysis
aip2	Artificial engine 2	Object detections
aip3	Artificial engine 3	Event recognitions

Note: Adding optional features might affect the number of simultaneous operations.

Contact our sales team at sales@mog-technologies.com to find out how to purchase or in case you need more information.

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