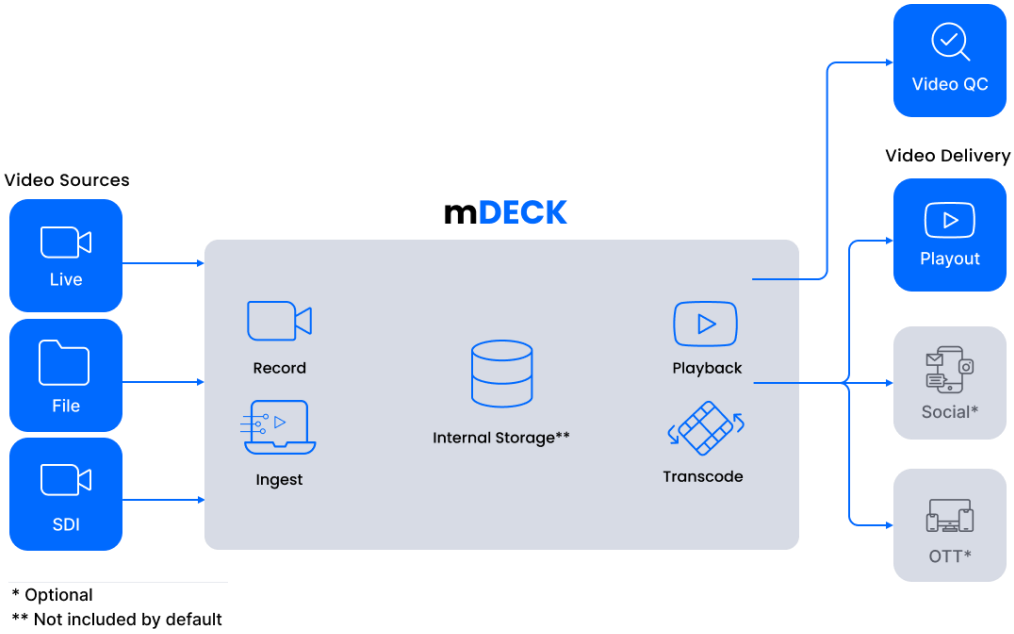
mDECK Densu io

Overview

Optimize your media production and distribution workflows with mDECK Densu io, a professional media deck that can combine operations of record, ingest, transcode, and playback content in FHD, and NDI in a single box.

This compact and cost-effective media deck not only performs hybrid workflows (file-based and live) but also supports the most used formats on the market and allows users to work together as a group.

This powerful media deck comes with PSU redundancy and an OS drive, and can be pre-configured to support IP Live workflows. It also offers the possibility of adding local storage for greater flexibility and increased capacity.



Highlights

- mPAM - Content and production asset manager for up to 2 users
- mSWITCH - Remote live switching and composing
- mTALK - Audio communication between users
- Live to live - multiple simultaneous records
- Batch capture
- Multiple simultaneous transcodes
- Automated file ingest
- Metadata preservation, enhancement, and enrichment
- File playback - multiple simultaneous plays
- Playlist management
- Quality control, audio, and video report
- Flexible file naming and renaming engine
- Locators support
- Closed captions
- Media checksum
- Supports spanned clips
- Proxy generation
- Playout preparation and control
- Improved security
- Artificial intelligence

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

Features

Features
Timecode support
LTC (SMPTE 12M)
VITC (SMPTE RP188)
Time of Day
Serial Control Protocols
VTR (BVW) - Serial
VTR (VDCP) - 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
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 ***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
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
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

Features
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
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

Features
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
Playout audio only streams
Loudness normalization (EBU R128)
Audio downmixing & upmixing
External audio files support (.WAV)
MPEG-4 Audio (M4A) audio format as output
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
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 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

Features
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
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)
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
Delete artifacts on abort
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

Features
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
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
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
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

Features
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
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
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

Features
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
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
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)

Features
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
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
Advanced text search
Asset browser permissions
Asset collections
Asset essences
Asset essences for generic sources

Features
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
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
Communicate via audio between two or more users

Features
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
Remote services, system restart, and settings recovery features
DASH/HLS packager with DRM
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 Cluser Configurarion while displaying running servicers 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
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
Control XPRESS display panel with peripheral API
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
Configurable web interface access port
Embeddable Dashboards/Widgets
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

Features
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
Multiviewer
Define the 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
Perform a Factory Data Reset
Erase all data and reset the system
Force clear cache

Technical Specifications

Supported File Inputs

	Inputs
OnPrem	**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-XPD1E / AU-XPD3EJ
	XDCAM EX
	Sony SxS (SBAC-UT100, SBAC-US10/20/30)
	XDCAM HD
	Sony XDCAM HD: Disc (PDW-U1, PDW-U2, PDW-U4)

Inputs	
	XAVC Structures
	DJI (Camera Drones)
	HLS Structures
	MPEG-TS Structures
	MOG Package
	Network
	XDCAM Network
	P2 Network
	ARRI RAW Network
	Ikegami Network
	Storage
	Avid ISIS / Nexis
OnPrem	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
	Social Media
	Facebook
	X (Twitter)
	Vimeo
	YouTube
	Professional Cloud Storages
	Adobe Creative Cloud
	Amazon S3 Glacier
	Microsoft Azure Storage
Cloud	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	
	Avid ISIS / Nexis
	Avid Unity™ MediaNetwork
	DDP – Dynamic Drive Pool
	Facilis TerraBlock
	Harmonic MediaGrid
	Editshare EFS
	NAS / SAS (SMB 2.0 and 3.0)
OnPrem	Quantum StorNext
	ScaleLogic NX2 & ZX NAS Storage
	EMC Isilon
	QNAP
	Studio Network Solutions EVO
	Oracle Storage
	Netapp
	FTP Servers (List on request)

Outputs	
OnPrem	Generic File Shares
Cloud	**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
	X (Twitter)
	Vimeo
	YouTube

Supported Live Inputs

Inputs	
Live	**SDI**
	SD-SDI (SMPTE 259M)
	3G-SDI (SMPTE 292M, SMPTE296M, SMPTE372M, SMPTE425M)
	Support for 8, 10 and 12 bits
	Streams
	Video Content Hyperlinks
	HLS
	MPEG-TS
	MPEG-DASH
	RTMP (with support for HEVC / VP9 / AV1)
	RTP
	RTSP
	NewTek NDI
	UDP
	Haivision SRT
	WebRTC
	Zixi
	Audio
	Dante audio *Negotiated separately
	Social Media
	Facebook
	Twitch
	X (Twitter)
	YouTube
	IP Live *Optional
	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
Live	**SDI**
	SD-SDI (SMPTE 259M)
	3G-SDI (SMPTE 292M, SMPTE296M, SMPTE372M, SMPTE425M)
	Support for 8, 10 and 12 bits
	Streams
	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
	Haivision SRT
	WebRTC
	Vizzi
	Live Output
	Social Media *Optional
	Facebook
	Twitch
	X (Twitter)
	Vimeo
	YouTube
	Multiple and Adaptive bitrates for the OTT *Optional
	IP Live *Optional
	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 LGOP 25 / 35 / 50 Mbps
DVCPRO 25/50 Mbps / DVCPRO HD 100 Mbps
AVC-Intra 50/100 Mbps
AVC-Intra 200 Mbps
AVC Ultra (LGOP 6/12/25/50 Mbps)
DNxHD (SQ/HQ/HQX/LB)
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 1080p 3 - 9 Mbps High Profile (Live)
H.264 720p 1.5 - 6 Mbps High Profile (Live)

Input Video Formats
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
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)
JPEG 2000 (Full HD)
Google® VP6 / VP7 / VP8 / VP9 (Full HD)
Uncompressed UYVY 422 / V210 / RGBA
AOMedia Video 1 (Full HD)
IMF (JPEG 2000 @ Full HD)

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 LGOP 25 / 35 / 50 Mbps
DVCPRO 25/50 Mbps / DVCPRO HD 100 Mbps
AVC-Intra 50/100 Mbps
AVC-Intra 200 Mbps
AVC Ultra (LGOP 6/12/25/50 Mbps)
DNxHD (SQ/HQ/HQX/LB)
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 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

Output Video Formats
H.265/HEVC 10 Mbps LGOP
H.265/HEVC 25 Mbps LGOP
H.265/HEVC 50 Mbps LGOP
H.265/HEVC 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)
JPEG 2000 (Full HD)
Google® VP6 / VP7 / VP8
Google® VP9 (Full HD)
Uncompressed UYVY 422 / V210 / RGBA
AOMedia Video 1 (Full HD)
IMF (JPEG 2000 @ Full HD)

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)
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 *Optional

Output OTT Formats
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 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
H.264 1080p CBR MAIN Profile
H.264 576p CBR - 3 Mbps MAIN Profile

Output OTT Formats
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

* Optional output

Product Integrations

Editing Sytems	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 UnityTM 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-XPD1E / AU-XPD3EJ)	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	X (Twitter)
Transfer Acceleration Protocols	Generic S3	Sony Disc Reader: PDW-U1, PDW-U2	YouTube
File Catalyst Direct	**Stream**	**VTR Decks**	Vimeo
IBM: Aspera File Transfer	Newtek NDI	XDCAM HD: Disc (PDW 1500, PDW HD1500)	**Archive**
Peripheral Devices	Haivision SRT	XDCAM HD: Disc (PDW F70)	Archiware P5
Countour Shuttle Pro V2	Zixi	XDCAM Station (XDS1000)	**Audio**
Elgato Stream Deck	**Structures**		Dante *Negotiated separately
	XAVC Structures		

Server Options

Features			Specs
System	Platform		Densu 2U
	Video IO		2x DeckLink miniDuo2
	Operating System Drive		480GB
	Operating System		Windows 10 Enterprise (LTSC)
Connectivity	Networking	1Gb Ethernet Port	2
		2.5Gb Ethernet Port	2
	Video	Display Port	2
		HDMI	2
	USB	2.0	4
		3.0	8
	HD BNC I/O		8
	Ref. In		2
	Live IP Port**		2
	LTC Input		2
	Audio Output		2
	Breakout Connector		2
	Power Requirements		Dual 300W
	Breakout Cable	RS422	8
		GPO branch with 4 outputs	2
		GPI branch with 4 inputs	2
Other	Dimensions & Weight		2RU, 245x484x89mm (D, W, H), ~14Kg
	Delivery Packaging		580x380x250mm (D, W, H), ~15Kg
	Temperature	Storage**	–40°C to 65°C (–40°F to 149°F)
		Continuous Operation	10°C to 32°C (50°F to 89.6°F)
	What is Included	Power Cable	2x C13 to C14
		Other	4x rack mount screws

** Not included by default

Concurrent Media Operations

With mDECK Densu io, 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 Densu io supports up to 8 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 4 live channels	Up to 1 operation	Up to 4 playback files	Up to 5 files preview	Up to 1 operation	Up to 1 operation

Product

Part Number	Product	Description
mddnio	mDECK Densu io	Compact deck appliance for hybrid workflows of up to 8 combined media operations

Available Options

Choose from the products below to customize the mDECK Densu io according to your business rules.

Production Tools

Tools for asset management and workflow orchestration.

mPLAN

Setup scheduled events not only from the standard scheduler but through a unique roll out view interface. 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.

Part Number	Product	Description
mpla1c	mPLAN	Scheduler & Router Control of up to 8 channels

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

Add-ons

Output options to complement your workflows.

Part Number	Product	Description
s2oasa	OTT & Social media	Multiple output resolutions for OTT & Simultaneous social media shares
s2ioiplk	IP live kit	IP media production infrastructure

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

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 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
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 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	
Part Number	**Product**
s2aifr	Face Recognition and Age Prediction
s2aiod	Object Detection
s2aicr	Optical Character Recognition
s2aisr	Speech Recognition

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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