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 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.

Additionally, it comes with local storage of 8TB, PSU redundancy, and an OS Drive.
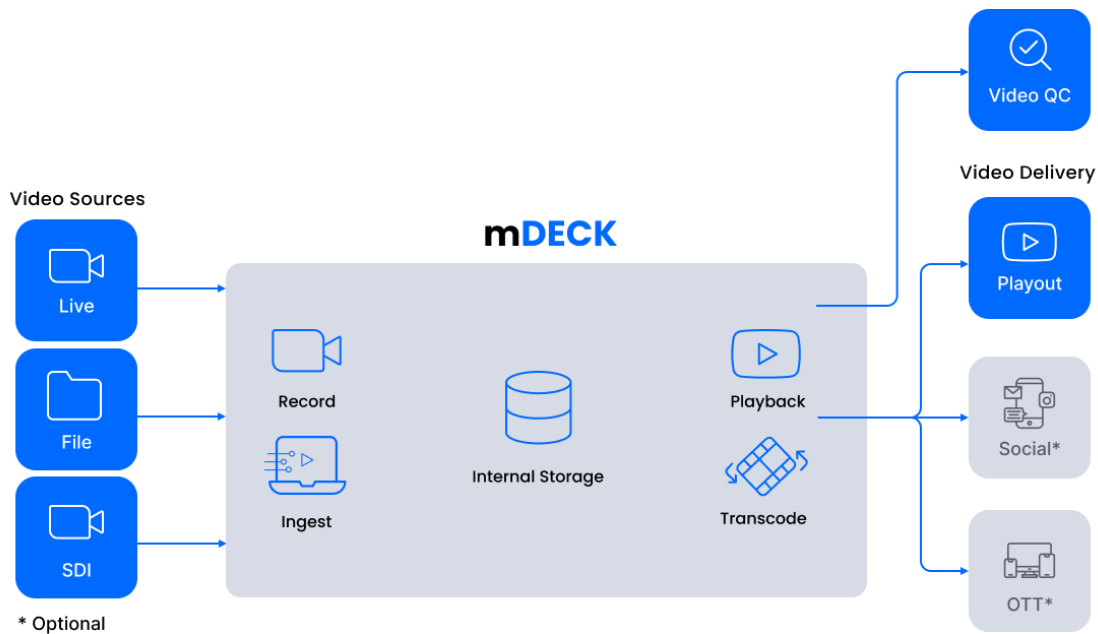
Highlights

- 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 intelligence

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
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
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
Measurement of consumption (Number of bytes for input/output "lives")
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

    Reset 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

Features

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

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

Features
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 an Airspeed 5000

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 an Airspeed 5000
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)

Router Control *Optional

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 mane 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

Features

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

    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

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

    Ingest Apple ProRes wrapped in OP-Atom to Avid

Features
Support of Avid OP-Atom files with Apple ProRes essence
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
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"

Features
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
Index clips with same name but with different metadata
Exclude file extensions from File inputs
Measurement of consumption (Number of bytes for input/output "files")

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

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

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

Seamless playback without black frames when "jump to" in a playlist

Input/output social media *Optional

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

Features
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
Object detection 2.0
Optical Character Recognition (OCR)
Speech recognition 2.0 (with ability to detect non speech tokens)

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

Features

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
- 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 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

- 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

Features
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 8 players in a single dashboard
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	
	Plain Files or Structures
	ARRI ALEXA Cameras
	BlackMagic Cameras
	RED Digital Cinema
	Avid Files
	Avid Media Files (standalone or Nexis)
	Avid Sequences (master clips and rendered sequences)
	CANON DSLR 5D, 7D, C300, C100
	GoPro Cards
	IKEGAMI GFPAK
	JVC (AVC HD models)
	NextoDI NSB-25
OnPrem	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)
	XAVC Structures
	DJI (Camera Drones)
	HLS Structures
	MPEG-TS Structures
	MOG Package

Inputs		
OnPrem	**Network**	
	XDCAM Network	
	P2 Network	
	ARRI RAW Network	
	Ikegami Network	
	Storage	
	Avid 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	
Cloud	**Social Media**	
	Facebook	
	X (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 l Cloud Drive	
	Dropbox	
	Google Drive	
	Microsoft One Drive	

Supported File Outputs

Outputs	
OnPrem	Avid 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)
	Generic File Shares

Outputs
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

(Row label: **Cloud**)

Supported Live Inputs

Inputs
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)
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

(Row label: **Live**)

Supported Live Outputs

Outputs
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)
Support for 8, 10, and 12 bits
Streams
HLS
HTTPS Push
Microsoft Smooth Streaming

(Row label: **Live**)

Outputs	
Live	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

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)
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)

Input Video Formats

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
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
Google® VP6 / VP7 / VP8 / VP9 (Full HD)
Uncompressed UYVY 422 / V210 / RGBA
AOMedia Video 1 (Full HD)
AOMedia Video 1 (4K)
AOMedia Video 1 (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
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)

Output Video Formats

Output Video Formats
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
Google® VP6 / VP7 / VP8
Google® 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)

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 *

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
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	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 and Workgroup 9 and 10	AVID Interplay	Panasonic CX350 HEVC	Lumen
BlackMagic: DaVinci Resolve Studio	AXLE MAM	Panasonic PTZ Cameras	Fastly
Autodesk: Flame	Editshare Flow	Ikegami Gfpack	Akamai Technologies
Storage	MOG Vizzi	JVC AVC HD camera models	Microsoft Azure
AVID Nexis Storage	Medialoopster MAM	LUMIX DC-S1H	Cloudflare
Avid UnityTM MediaNetwork	**Professional Cloud Storages**	NewTek PTZ3 UHD Camera	Limelight Networks
Dynamic Drive Pool SAN Storage	Adobe Creative Cloud	NewTek PTZ3 Camera	Amazon CloudFront
Facilis Terrablock	Amazon EC2	RED Digital Cinema	BootstrapCDN
Harmonic MediaGrid	Amazon S3	GOPRO	StackPath
Quantum: Storenext	Amazon S3 Glacier	**Card Readers**	KeyCDN
Scalelogic: NX2 & ZX NAS Storage	Microsoft Azure Storage	Panasonic P2 (AJ PCD 2 / AJ PCD 20/30/35)	Rackspace
Editshare EFS	Microsoft Azure Virtual Machines	Panasonic P2 (AJ MPD1)	Alibaba Cloud Content Delivery Service
EMC: Isilon	Tencent: Cloud Storage	Panasonic P2 (AU-XPD1E / AU-XPD3EJ)	CacheFly
QNAP	Lucidlink Cloud NAS	Panasonic P2 (AG HPG 20)	Verizon
Studio Network Solutions: EVO	Google Cloud Storage	Sony XDCAM EX (SxS Cards): SBAC-US10/20/30	**Social Media *Optional**
Oracle Storage	IBM Cloud Object Storage	Sony XDCAM EX (SxS Cards): SBAC-UT100	Facebook
Netapp	IBM Generic S3	Sony XDCAM EX (SxS Cards): MRW E-80	Twitch
Transfer Acceleration Protocols	**Stream**	Sony XDCAM EX (SxS Cards): MRW E-90	X (Twitter)
File Catalyst Direct	Newtek NDI	Sony Disc Reader: PDW-U1, PDW-U2	YouTube
IBM: Aspera File Transfer	Haivision SRT	**Video Router Control Protocols**	Vimeo
Peripheral Devices	Zixi	Videohub Ethernet Protocol	**VTR Decks**
Countour Shuttle Pro V2	**Structures**	Evertz > SONY HDS-X5800 - Evertz BRC controller (7700R-SC-BRC) (Quartz Protocol)	XDCAM HD: Disc (PDW 1500, PDW HD1500)
Elgato Stream Deck	XAVC Structures	Grass Valley > Trinix 5122 - CM4000 GrassValley Router Control (Jupiter ASCII protocol)	XDCAM HD: Disc (PDW F70)
Archive	**Audio**	Grass Valley > Sirius 840 - Router Control module 2464 (Probel SW-P-08 Protocol)	XDCAM Station (XDS1000)
Archiware P5	Dante *Negotiated separately		

Server Options

Features			Specs
System	Platform		Dell R760
	GPU		2x Nvidia A2
	Video IO		2x DeckLink 8K Pro
	AVC Hardware Encoder		2x Matrox
	Storage Drive		8TB SSD
	Operating System Drive		2x 480GB RAID 1
	Operating System		Windows 10 Enterprise (LTSC)
Connectivity	Networking	1Gb Ethernet Port	2
		10Gb Ethernet Port SFP+	4
	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 Module**	LTC Input	1
		Audio Out	1
		Breakout Connector	1
	Breakout Cable**	RS422	4
		GPO branch with 4 outputs	1
		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

** Not included by default

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, ingesting, transcoding, playback, and file preview.

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
Up to 16 live channels being: **SDI:** 4 UHD/8 FHD **IP Stream:** 4 UHD/16 FHD	Up to 4 operations	Up to 16 live channels being: **SDI:** 4 UHD/8 FHD **IP Stream:** 4 UHD/16 FHD	Up to 5 files preview

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.

Production Tools

Tools for asset management and workflow orchestration.

mPAM

Benefit from a state-of-the-art content and production asset manager tool with 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.

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
mpam1usw	mPAM	Content and production asset manager per licensed user
mgslsb	mPLAN	Scheduler & Router Control per licensed channel

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

Add-ons

Output options to complement your workflows.

Part Number	Product	Description
cnnsmop	Social media	Simultaneous social media shares
cnnottop	OTT	Multiple OTT output resolutions

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**
aistop	Option to enable Speech-to-Text
aifrop	Option to enable Face Recognition
aiocop	Option to enable Optical Character Recognition
aiodop	Option to enable Object Detection

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

Hardware

Customize your solution to your day-to-day media needs.

Part Number	Product	Description
pcbx	Peripheral module	Optional MOG module to expand I/O available with 1x LTC, 1x audio output, 1x GPI, 1x GPO and 4x RS422

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.