

mLIVE Solid io



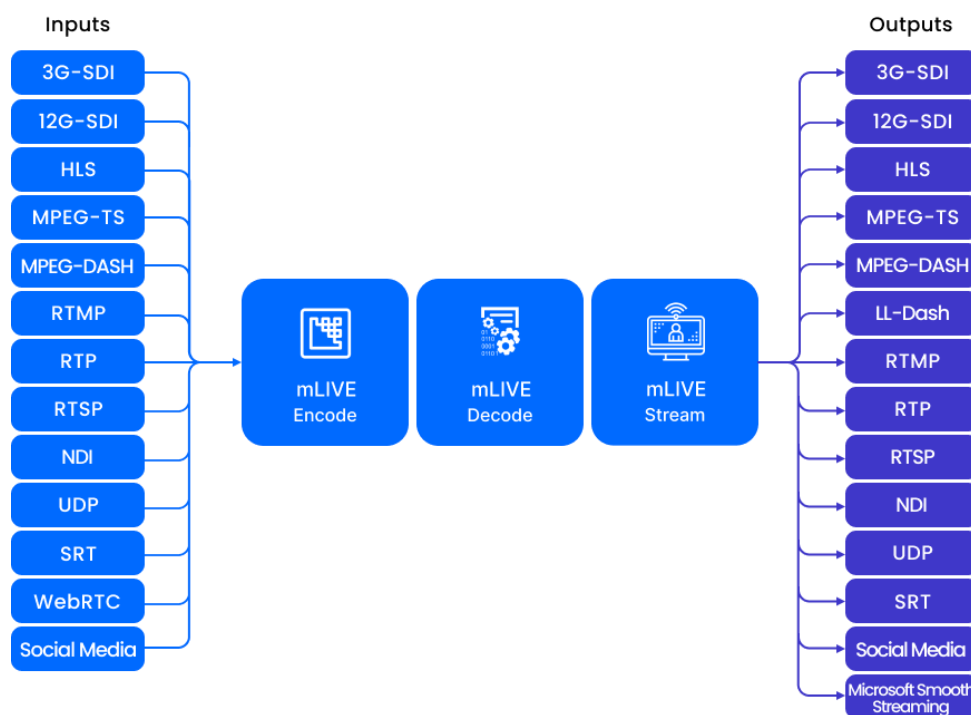
Overview

mLIVE Solid io is a powerful and flexible encode and decode appliance to manage all your live video streams in an integrated media production ecosystem.

It brings you unparalleled power and proven reliability, no matter the scenario. Broadcast live events, automate 24/7 channels playout, or distribute to OTT and social media effortlessly, no matter the source.

mLIVE Solid io supports simultaneous media operations that can be a combination of live video streams, file previews, live switching, and even intercom between different users.

Also, it can be equipped with local storage to provide more flexibility and increased capacity.



Highlights

- **mPLAN** - Scheduler & Router Control
- **mSWITCH** - Remote live switching and compositing
- **mTALK** - Audio communication between users
- Encodes and/or decodes contents according to the destination format
- Full featured local and remote user interface (includes quick control through touch screen)
- Operation modes: manual and scheduled
- Multiple output resolutions for OTT
- Ideal for multiple feeds of video contribution
- Social media sharing

Specially Designed For

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

Features

Features
Timecode support
LTC (SMPTE 12M)
VITC (SMPTE RP188)
Time of Day
Multiple LIVE and simultaneous records
Gang Capture operations
Independent workflow selection in Gang Captures
Flexible Gang Capture channel configurations / Choose which channels are present in the gang
Automatic Stream Control - Detect input streams and start recording automatically
Continuous live stream capture
Generate MP4 files as Fragmented MP4 via DCP Packager
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
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
Manual
Scheduled
Clipnaming
Drag and Drop support
"CreationDate" field can refer to a desired Time Zone
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
Audio downmixing & upmixing
Ability to mute proxy on the output
Close captions
CEA/EIA - 608
Support DVB-S captions in streams
Stream with Closed Captions
Scheduler (Calendar View)
Schedule a Record operation
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
Placeholder when editing an occurrence name

Features

- 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
- 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

Signal error detection and related recovery actions

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

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)
- Variable Frame Rate Input
- Support IGMPv3 multicast
- Add possibility to change the transport stream segments duration

MPEG-TS Support

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

NDI

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

HLS

- Configurable HLS segment duration
- Configurable HLS Playlist segment count

RTMP

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

SRT

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

WebRTC

- h.264 Support
- VP8 Support
- VP9 Support

Burn-In Video options

- Graphic burn-in while recording

mTALK

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

Analytics

- Integrate with Google Analytics and Tag Manager

Features

- 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
- Opt to "Keep me signed in"
- Send a User Verification through email
- Configurable password visibility in logs

Orchestration

- Orchestration View for output workflows
- Services Menu that eases Group and Cluster Configuration while displaying running services per node

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
- 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 - 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
- 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

Multiviewer

- Define the quality and target latency of the preview stream
- Ability to control up to 4 players in a single dashboard

Features	
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 Live Inputs

Inputs	
Live	SD/HD/FHD-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

Supported Live Outputs

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Live	SD/HD/FHD-SDI
	SD-SDI (SMPTE 259M)
	3G-SDI (SMPTE 292M, SMPTE296M, SMPTE372M, SMPTE425M)
	12G-SDI UHD-SDI (SMPTE ST-2081/SMPTE ST-2082)
	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
	Facebook
	Twitch
	X (Twitter)
	YouTube
	Vimeo
	Multiple and Adaptive bitrates for the OTT

Formats

Output Formats

Output Video 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 CBR - 6.5 Mbps High Profile
H.264 720p 5 - 7.5 Mbps High Profile
H.264 480p 2.5 - 4 Mbps High Profile
H.264 360p 1 - 1.5 Mbps High Profile
H.264 2160p 13 - 51 Mbps High Profile (Live)
H.264 1440p 6 - 18 Mbps High Profile (Live)
H.264 1080p 3 - 9 Mbps High Profile (Live)
H.264 720p 1.5 - 6 Mbps High Profile (Live)
H.264 480p 0.5 - 2.0 Mbps High Profile (Live)
H.264 360p 0.4 - 1.0 Mbps High Profile (Live)
H.264 240p 0.3 - 0.7 Mbps High Profile (Live)
H.264 1080p CBR 15 Mbps MAIN Profile
H.264 480p CBR 2.3 Mbps MAIN Profile
H.264 360p CBR MAIN Profile
H.264 432p CBR MAIN Profile
H.264 576p CBR MAIN Profile
H.264 720p CBR MAIN Profile
H.264 1080p CBR MAIN Profile
H.264 576p CBR - 3 Mbps MAIN Profile
H.264 720p CBR - 4 Mbps MAIN Profile
H.264 1080p CBR - 5Mbps MAIN Profile
H.264 15-30 Mbps MAIN Profile
H.264 L10 10 Mbps
H.264 WebRTC Baseline

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
H.265/HEVC 4K 25 Mbps LGOP
H.265/HEVC 4K 50 Mbps LGOP
NDI HX H.264 - High Profile
NDI HX H.265 - High Profile
AOMedia Video 1 (Full HD)
AOMedia Video 1 (4K)

OTT Formats

Output 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.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

Product Integrations

Stream	CDN's
Newtek NDI	Lumen
Haivision SRT	Fastly
Zixi	Akamai Technologies
Social Media	Microsoft Azure
Facebook	Cloudflare
Twitch	Limelight Networks
X (Twitter)	Amazon CloudFront
YouTube	BootstrapCDN
Vimeo	StackPath
Hypervisors	KeyCDN
Microsoft HyperV	Rackspace
VMWare ESX	Alibaba Cloud Content Delivery Service
Audio	CacheFly
Dante *Negotiated separately	Verizon

Server Options

Features			Specs
System	Platform		Dell XR12
	GPU		1x Nvidia A2
	Video IO		1x DeckLink 8K Pro
	Operating System Drive		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
	Serial		1
	BNC 12G In/Out		4
	Ref. In		1
Extended Connectivity	Power Requirements		Dual 1400W
	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, 463x482x86.8mm (D, W, H), ~20.5 kg
	Delivery Packaging		470x487x92mm (D, W, H), ~25Kg
	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 mLIVE Solid 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 live video streams, file preview, live channel switching, and intercom.

mLIVE Solid 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			
Live Video Streams	File Preview	Live Switch	Intercom
Up to 6 live channels	Up to 10 files preview	Up to 1 operation	Up to 1 operation

Product

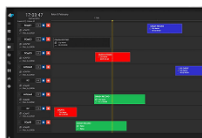
Part Number	Product	Description
mIslio	mLIVE Solid io	Encode/decode appliance of up to 8 combined media operations

Available Options

Choose from the products below to customize the mLIVE Solid io according to your business rules.

Production Tools

Tool for 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
mpla8c	mPLAN	Scheduler & Router Control of up to 8 channels

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

Plugins

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



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
scpi	Screen-m plugin	Screen capture & Delivery

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.

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