# mPLAY Solid io

Overview

mPLAY Solid io is an outstanding SDI monitoring and playout appliance that simultaneously supports playing all kinds of media files in 4K, UHD, FHD, and NDI.

It provides you with an agnostic real-time playback system to ensure a straightforward quality control process and allows the user to playback and reviews a wide range of file-based content with broadcast quality across all platforms and channels.

mPLAY Solid io supports simultaneous media operations that can be a combination of playout, file preview, live switching, and even intercom between different users.

Additionally, it has an option for 8TB of storage.
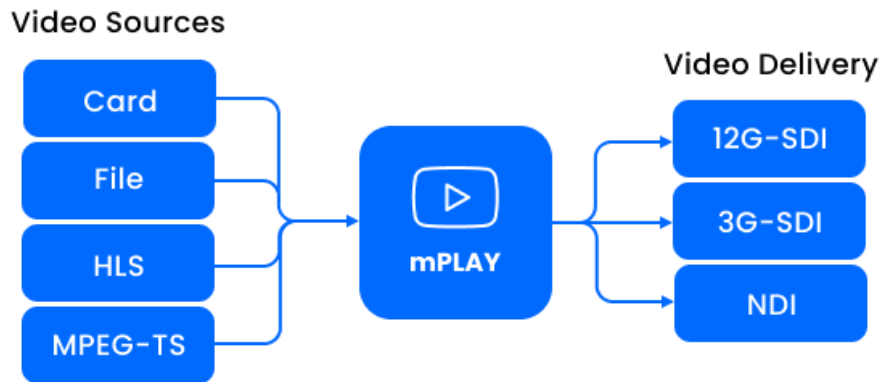
Highlights

- **File playback - multiple simultaneous operations:** composition play, loop playback, instant play, schedule play, remote preview
- **Playlist management:** add clips, remove clips, reorder clips, export playlist, loop play
- Full featured local and remote user interface (includes quick control through touch screen)

- **Operation modes:** manual, scheduled, and automatic
- **Overlays:** clip-name and port-name
- Local and remote preview of the playing video
- **mSWITCH** - Remote live switching and composing
- **mTALK** - Audio communication between users

Specially Designed For

- Educational/Government
- Live Entertainment/Worship
- Corporate
- Sports

- Film/TV Studio/Scripted
- Post-Production
- Broadcast/Digital News
- System Integrators/Rentals

Features

Features
Serial Control Protocols
VTR (VDCP) - Serial
Multiple LIVE and simultaneous records
Stream with Closed Captions
Deck control through Serial Ports
Operation modes
Automatic
Manual
Scheduled
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
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)
PCM 96KHz support
Playout audio only streams
MPEG-4 Audio (M4A) audio format as output
Ability to mute proxy on the output
Close captions
CEA/EIA - 608
Locators
Create locators with shortcut keys
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
Send locators instantly to Playout
Preserve Metadata Enhancement locators created by an Automatic Job
Scheduler (Calendar View)
Schedule a Playout operation
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
Placeholder when editing an occurrence name
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
Visualize scheduled events in a List View

Features

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

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

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
- 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

Features
Playout Capture streams through SDI and native window
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

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
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 Cluser Configurarion while displaying running servicers per node

Hardware acceleration *If Hardware is installed or available

Nvidia Nvenc

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

Features
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
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		
	Plain Files or Structures	
	ARRI ALEXA Cameras	
	BlackMagic Cameras	
	RED Digital Cinema	
OnPrem	Avid Files	
	Avid Media Files (standalone or Nexis/ISIS)	
	Avid Sequences (master clips and rendered sequences)	
	CANON DSLR 5D, 7D, C300, C100	
	Generic File Shares	

Inputs	
OnPrem	GoPro Cards
	IKEGAMI GFPAK
	JVC (AVC HD models)
	NextoDI NSB-25
	Panasonic CX350 HEVC
	Panasonic AU-EVA1 and GH5 Cameras
	Panasonic P2
	AJ-PCD 2 / AJ-PCD 20/30/35 / AJ-MPD1
	AU-XPD1E / AU-XPD3EJ
	Multi Clip/Spanned XDCAM/XAVC/XDCAM-EX Structure
	XDCAM EX
	Sony SxS (SBAC-UT100, SBAC-US10/20/30)
	Sony XQD (MRW E-80, MRW E-90)
	XDCAM HD
	Sony XDCAM HD: Disc (PDW-U1, PDW-U2, PDW-U4)
	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
	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 I Cloud Drive
	Dropbox
	Google Drive
	Microsoft One Drive

Supported Live Inputs

Inputs	
Live	**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

Supported Live Outputs

Outputs	
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)
	12G-SDI (Quad-Link 3G-SDI)
	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

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

Input Video Formats

Input Video Formats
AVC-Intra 4K422
AVC Ultra (LGOP 6/12/25/50 Mbps)
DNxHD (SQ/HQ/HQX/LB)
DNxHR (SQ/HQ/HQX/LB)
H.264 2160p 35 - 68 Mbps High Profile
H.264 1440p 16 - 24 Mbps High Profile
H.264 1080p 8 - 12 Mbps High Profile
H.264 720p 5 - 7.5 Mbps High Profile
H.264 480p 2.5 - 4 Mbps High Profile
H.264 360p 1 - 1.5 Mbps High Profile
H.264 2160p 13 - 51 Mbps High Profile (Live)
H.264 1440p 6 - 18 Mbps High Profile (Live)
H.264 1080p 3 - 9 Mbps High Profile (Live)
H.264 720p 1.5 - 6 Mbps High Profile (Live)
H.264 480p 0.5 - 2.0 Mbps High Profile (Live)
H.264 360p 0.4 - 1.0 Mbps High Profile (Live)
H.264 240p 0.3 - 0.7 Mbps High Profile (Live)
H.264 L10 10 Mbps
H.264 MOG 1Mbps
H.265/HEVC 10 Mbps LGOP
H.265/HEVC 25 Mbps LGOP
H.265/HEVC 50 Mbps LGOP
H.265/HEVC 100 Mbps LGOP
H.265/HEVC 4K 25 Mbps LGOP
H.265/HEVC 4K 50 Mbps LGOP
H.265/HEVC 4:2:2 LGOP
H.265/HEVC 4K 4:2:2 LGOP
MPEG-5 EVC Baseline Profile
MPEG-5 EVC Main Profile
MPEG VVC/H266 Main Profile
ProRes 422 (SQ/HQ/LT)
ProRes 4444
ProRes 4444XQ
JPEG 2000 (Full HD)
JPEG 2000 (4K)
Google® VP6 / VP7 / VP8 / VP9 (Full HD)
Google® VP9 (4K)
Uncompressed UYVY 422 / V210 / RGBA
AOMedia Video 1 (Full HD)
AOMedia Video 1 (4K)
IMF (JPEG 2000 @ Full HD)
IMF (JPEG 2000 @ 4K)

Product Integrations

Storage	Professional Cloud Storages	Cameras	Social Media
AVID ISIS Storage	Adobe Creative Cloud	Canon (DSLR5D, DSLR 7D)	Facebook
AVID Nexis Storage	Amazon EC2	Canon (DSLR C300, DSLR C100)	Twitch
Avid UnityTM MediaNetwork	Amazon S3	ARRI Alexa XT (ARRIRAW)	X (Twitter)
Dynamic Drive Pool SAN Storage	Amazon S3 Glacier	Panasonic AU-EVA1	YouTube
Facilis Terrablock	Microsoft Azure Storage	Panasonic GH5 Cameras	Vimeo
Harmonic MediaGrid	Microsoft Azure Virtual Machines	Panasonic CX350 HEVC	**Peripheral Devices**
Quantum: Storenext	Tencent: Cloud Storage	Ikegami Gfpack	Countour Shuttle Pro V2
Scalelogic: NX2 & ZX NAS Storage	Lucidlink Cloud NAS	JVC AVC HD camera models	Elgato Stream Deck
Editshare EFS	Google Cloud Storage	LUMIX DC-S1H	**Stream**
EMC: Isilon	IBM Cloud Object Storage	RED Digital Cinema	Newtek NDI
QNAP	Generic S3	GOPRO	Haivision SRT
Studio Network Solutions: EVO	**Hypervisors**		
Oracle Storage	Microsoft HyperV		
Netapp	VMWare ESX		

Server Options

Features		Specs
System	**Platform**	Dell XR12
	GPU	1x Nvidia A2
	Video IO	1x DeckLink 8K Pro
	Storage Drive	8TB SSD**
	Operating System Drive	480GB RAID 1
	Operating System	Windows 10 Enterprise (LTSC)
Connectivity	**Networking** — **1Gb Ethernet Port**	2
	Networking — **10Gb Ethernet Port SFP+**	4
	Video — **VGA Out**	1
	USB — **2.0**	1
	USB — **3.0**	1
	Serial	1
	BNC 12G Out	4
	Ref. In	1
	Power Requirements	Dual 1400W
Extended Connectivity	**Peripheral Module**** — **LTC Input**	1
	Peripheral Module** — **Audio Out**	1
	Peripheral Module** — **Breakout Connector**	1
	Breakout Cable** — **RS422**	4
	Breakout Cable** — **GPO branch with 4 outputs**	1
	Breakout Cable** — **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)
	Temperature — **Continuous Operation**	10°C to 35°C (50°F to 95°F)
	What is Included — **Power Cable**	2x C13 to C14
	What is Included — **Other**	Static rails for 2/4-post racks

** Not included by default

Concurrent Media Operations

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

Media operations include playback, file preview, live channel switching, and intercom.

mPLAY Solid io supports up to 6 media operations at the same time. Within this margin, you can combine the operations shown in the table below:

Concurrent Media Operations			
Playback	**File Preview**	**Live Switch**	**Intercom**
Up to 4 playback files	Up to 5 files preview	Up to 1 operation	Up to 1 operation

Product

Part Number	Product	Description
mpslio	mPLAY Solid io	File playout appliance of up to 4 combined media operations

Available Options

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

Production Tools

Tool for workflow orchestration.
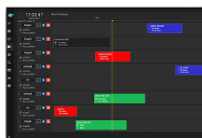
mPLAN

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.

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.

Storage

Option for local storage.

Part Number	Description
mpslssd8t	8TB of SSD storage

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