PLAYOUT AUTOMATION FOR MACOS

Meridian Playout

Playout. Frame perfect.

Meridian Playout is broadcast playout automation built natively for macOS on Apple silicon. Every frame stays on the GPU, from decode to output, and every command lands on the exact frame it was meant for. Live inputs, broadcast graphics, SCTE, redundancy and compliance recording are built in, and the whole channel runs from a browser. A complete playout chain fits on a Mac mini.

Frame-accurate

Commands target a frame on the channel clock, so main and backup act on the same frame.

GPU-resident

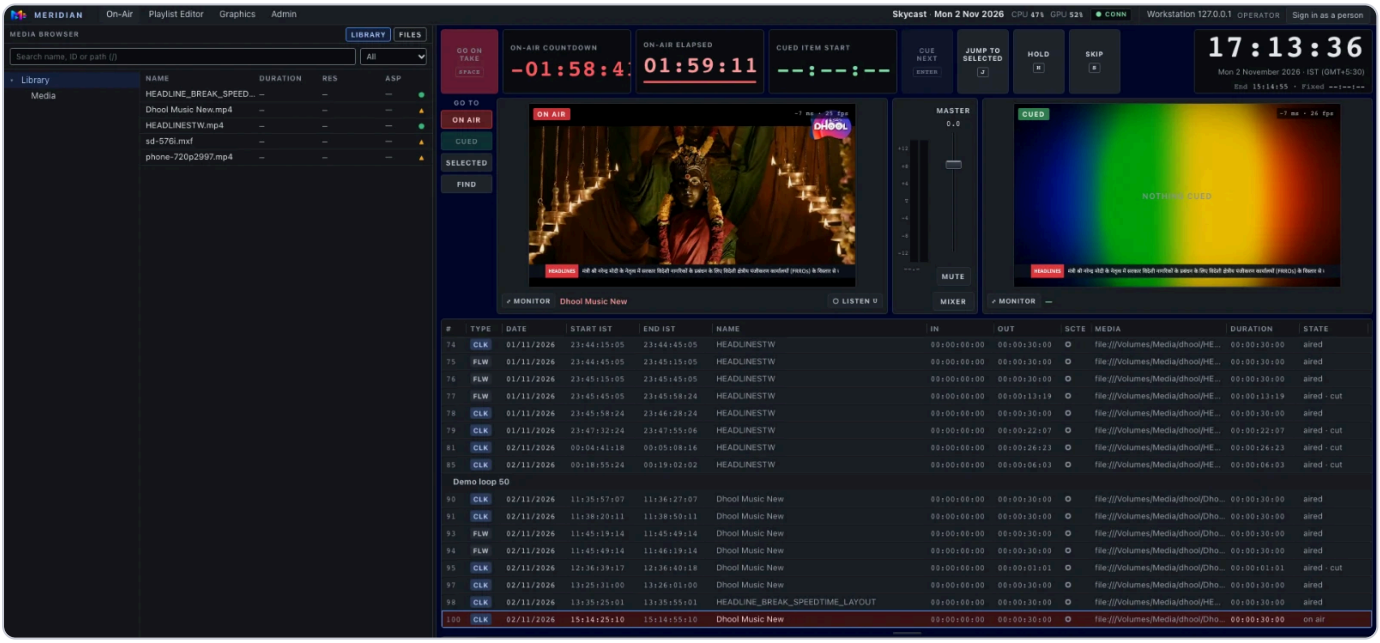
Decode, normalise, composite and encode in unified memory. No frame is copied by the processor.

Runs on a Mac mini

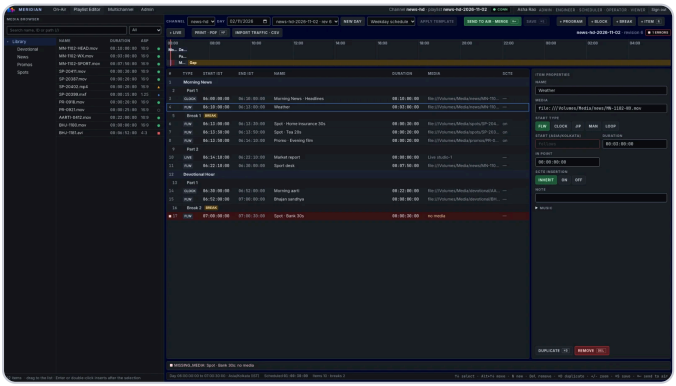
88% cheaper, 87% less power and 95% quieter than a broadcast server, and steady around the clock.

One box owns what airs

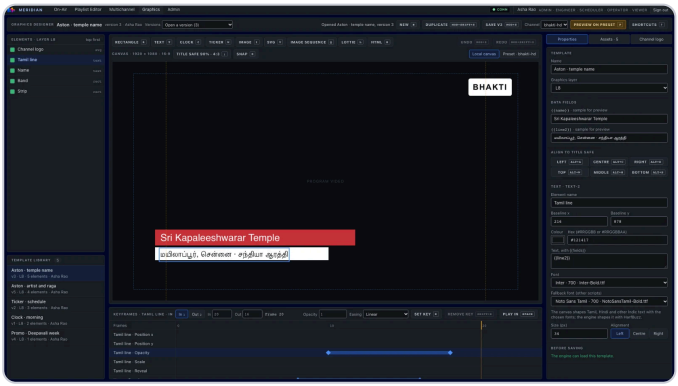
Graphics, tickers and external keys are composited inside, so every output is final.



On-Air Control. Program and Preview live from the engine, with the transmission list, countdowns and audio.



Playlist Editor. Programmes, blocks and breaks on a timeline, SCTE per block, missing media flagged before air.



Graphics Designer. Astons, tickers and logos designed in the browser, with Tamil and Hindi shaped correctly.

Technical specifications

Native macOS on Apple silicon, from Mac mini to Mac Studio

Playlist and scheduling

- Playlist, programme, block and item, with placeholders
- Fixed-time, follow-on and manual starts; join-in-progress
- Automatic gap and overlap fill, so nothing goes to black
- Edit on air: trim, reorder, insert, skip, jump, hold
- Recurring schedule templates, generated weeks ahead
- Readiness checks at load, a day ahead and a minute before air
- Traffic import and export in CSV and BXF; EPG export; print and PDF

Engine

- Frame-accurate: every command targets a frame on the channel clock (SMPTE ST 2059-1 epoch)
- GPU-resident pipeline in unified memory; no CPU frame copies
- Hardware decode and encode through VideoToolbox; software decode into GPU memory for the rest
- Metal deinterlace and re-interlace, AFD-aware scaling, frame-rate conversion, BT.709/BT.601
- Programme, Preset and Clean buses
- Cut, mix, dip, wipes, stingers and 2D DVE
- House format ProRes 422 HQ

Video formats

- SD 576i50, 4:3 or 16:9 anamorphic
- HD 720p50, 1080i50, 1080p50
- HD and SD outputs at once, with AFD centre-cut, letterbox or pillarbox
- 16-bit float RGBA compositing
- Sources 23.976 to 120 fps, variable frame rate, up to 8K, normalised in real time

Video codecs

ProRes · H.264 · HEVC · AV1 · MPEG-2 · XDCAM HD422 · IMX · HDV · AVC-Intra · XAVC · DNxHD · DNxHR · JPEG 2000 · DV/DVCPRO · VC-1

Containers and audio

MXF OP1a · MXF OP-Atom · MOV · MP4 · MPEG-TS · MKV · WebM · AVI · PCM · AAC · MP2 · MP3 · Opus · AC-3* · E-AC-3* · Dolby E pass-through*

Live inputs

SDI · SRT caller/listener · NDI* · YouTube Live · RTMP/RTMPS push · RTP and UDP TS · Multicast · RTSP · HLS · DASH · WebRTC (WHIP)

- Live-source watch: hold a slate until a stream is live, join, retry on a drop
- One-button breaking-news interrupt; cart wall in manual mode
- Live input to output in four frames or less (design target)

Outputs, all at once

SDI, 16 embedded audio channels · SRT · UDP/RTP TS · RTMP/RTMPS · YouTube Live · Facebook Live · NDI* · HLS · WebRTC preview · Compliance recording

Graphics

- 16 layers rendered on the GPU inside the engine
- Logos, Aston bands, tickers, rolls, L-band squeeze, promos, clocks, countdowns
- Data from RSS, JSON, CSV, spreadsheets or the playlist
- Tamil, Hindi, Telugu, Kannada, Malayalam, Bengali and Urdu shaping
- Per-field motion on interlaced outputs
- Browser designer; PNG, SVG, video with alpha, Lottie
- External graphics keyed inside (NDI alpha or SDI key and fill)

Audio

- 64-channel router; per-item profiles; up- and down-mix
- EBU R128 loudness, live meters, output limiter
- Ducking and voice-over
- AC-3/E-AC-3 and Dolby E pass-through*
- BARC/Kantar watermarking through Kantar's licensed software embedder

Ads, captions and signalling

- SCTE-35 on TS outputs; SCTE-104 in SDI VANC
- On, off or inherit per channel, programme and block
- Incoming SCTE-35/104 as break triggers
- Master and breakout channels for regional opt-out
- EIA-608/708 captions; OP-42/OP-47 teletext; AFD

Redundancy and compliance

- Main and backup engines frame-locked, automatic changeover
- Output keeper holds SDI steady through a renderer restart
- Missing-media protection with slate fallback
- Compliance recording with burnt-in timecode and set retention
- As-run from engine events; alarms; OpenTelemetry; audit trail

Control and integration

- Browser On-Air, Playlist Editor, Multichannel, Graphics, Admin
- Keyboard-first; no dialogs on the air path
- REST, gRPC, WebSocket; RS-422 Sony 9-pin, VDCP, GPI/GPO
- MOS 2.8 for newsroom systems such as Neo Newsroom
- Roles, LDAP and Active Directory, HTTPS; nothing phones home

Platform

- macOS on Apple silicon, Mac mini to Mac Studio; SDI through Blackmagic Desktop Video
- Signed, notarised installer; perpetual licence
- Design targets: under two cores per HD channel; cold start to air under 30 s

Meridian Playout on a Mac mini compared with a typical broadcast server (Intel Core i9, NVIDIA RTX 5070)

88%	87%	98.4%	95%
cheaper	**less power**	**less space**	**quieter**
₹80,000 vs ₹6,50,000	65 W vs 500 W+	0.8 L vs 49 L (4U)	5 dBA vs about 50 dBA

See Meridian Playout running your channel. **contact@skycast.in**

* Dolby and NDI need licences from their owners; Kantar watermarking needs a BARC licence. Specifications describe Meridian's design and may change. Mac mini figures are Apple's specifications for Mac mini (2024) with M4; server figures are Intel, NVIDIA and Supermicro ratings and typical Indian prices. Mac, Mac mini, Mac Studio and macOS are trademarks of Apple Inc. All other names are trademarks of their respective owners.