NDILIGHT

User Manual

Professional Broadcast Control Deck

VERSION 1.0

NDI / Art-Net / sACN / grandMA3 / PlayBack Pro

NDILIGHT — COMPLETE USER MANUAL Version 1.0

CHAPTER 1 — INTRODUCTION

NDIlight is a professional broadcast control application that plays video clips and NDI streams, samples the color of specific points of the image in real time (the "probes"), and sends the matching RGB values as DMX data (Art-Net or sACN) to lighting fixtures driven by a grandMA3 console. It also includes a PlayBack Pro-style broadcast playlist, Art-Net/OSC timecode emission and reception, a 512-channel DMX patch, a grandMA3 plugin export, and a program NDI output for feeding other control rooms or third-party applications (TriCaster, OBS, vMix, etc.).

The application is designed for lighting designers and video operators working live (concerts, theater, corporate events, TV). The targeted finish is that of professional broadcast desks: the on-screen information density is deliberately high, every button has a clear function, and anything that is visible can be used at any time without unnecessary navigation.

This manual walks through the entire interface zone by zone, top to bottom and left to right, then documents every menu, tab, modal and setting so that nothing is left out.

CHAPTER 2 — LICENSE ACTIVATION

On first launch NDIlight opens an activation window and asks for your license key. This key is sent to you by email after a successful purchase on the Lemon Squeezy online store.

The activation window contains:

- A text input to paste your license key
- A "No license yet? Buy now" link that opens your default browser on the Lemon Squeezy checkout page
- An ACTIVATE button that sends your key to the Lemon Squeezy servers for validation and machine registration
- A QUIT button that closes NDIlight without activating
- At the bottom, the hardware fingerprint of this machine (a unique identifier computed from your Windows MachineGuid, your physical MAC address, your CPU model and your host name)

Once activated, the key is stored locally under %APPDATA%\NDIlight\license.json. On every subsequent launch, NDIlight silently revalidates the key against Lemon Squeezy's servers in under a second. If your machine is temporarily offline, a 14-day grace period lets you keep working without Internet.

CHAPTER 3 — INTERFACE OVERVIEW

NDIlight's main interface is made of seven vertically stacked zones that cover the whole screen. From top to bottom:

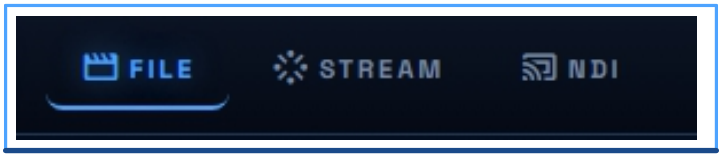
1. The TOP BAR — navigation, save/load, output
2. The MONITORS ROW — Preview, Program, and the clip settings panel on the right
3. The TRANSPORT BAR — transport buttons, points, speed, VU meters, GO/STOP
4. The TIMELINE — playback position, IN/OUT chevrons
5. The WAVEFORM — audio waveform, zoom, markers
6. THE PLAYLIST — clip list, toolbar, drag and drop
7. The STATUS BAR — Art-Net, NDI, resolution and probe indicators

Five modal windows appear as overlays when their corresponding button in the top bar is clicked: NDI sources, STREAM input, DMX patch, DMX monitor and Settings.

CHAPTER 4 — TOP BAR : LEFT SIDE

"NDILIGHT" LOGO

The logo is purely visual identity and not clickable.



"FILE" TAB (movie icon) Opens the Windows file explorer to pick a local video file and add it as a clip. Supported formats: MP4, MOV, MKV, AVI, WEBM, M4V, TS, MPG, MPEG, and any other format ffmpeg can remux or decode. The selected file is analyzed by ffprobe to extract its duration, codec, resolution, frame rate and audio tracks, then appended to the end of the playlist.

"STREAM" TAB (stream icon) Opens the Stream Input modal which lets you paste the URL of a network stream to play as a video source. Accepted protocols:

- HLS (.m3u8)
- RTSP
- RTMP
- SRT
- Direct HTTP / HTTPS

"NDI" TAB (cast_connected icon) Opens the NDI Sources modal which scans the local network for NDI senders announced via mDNS. All found sources — local and remote — are listed. Click one to add it to the playlist as a LIVE clip.

CHAPTER 5 — TOP BAR : RIGHT SIDE

"SAVE" BUTTON (save icon) Saves the complete session configuration to a JSON file of your choice: every clip in the playlist, its IN/OUT points, geometry settings, audio presets, probes and DMX mapping, the patch, the loop mode, and every value in the settings panel.

"LOAD" BUTTON (folder_open icon) Loads a previously saved configuration file. The full session state is restored: clips, settings, probes, patch.

"PATCH" BUTTON (grid_view icon) Opens the DMX Patch window which lets you visualize and reorganize probe assignment across the 512 DMX channels of the current universe. See chapter 20.

"SETTINGS" BUTTON (settings icon) Opens the Settings window: skin (Default / Dark Crystal Blue), network interface, audio device, master A/V delay, hardware GPU decoding, NDI output of the program. See chapter 22.

SEPARATOR

"OUTPUT" LABEL

Plain label preceding the output window controls.

SCREEN SELECTOR DROPDOWN

Lists all physical displays detected by the system. The selected display will receive the fullscreen output when you click the next button. In a studio, this is where you pick the stage display (projector, LED wall, broadcast monitor).

FULLSCREEN BUTTON (fullscreen icon) Sends the program to fullscreen on the selected display. The output window is borderless, black, and shows only the program render — no HUD, no chrome. Image is scaled to the display's native size.

OPEN WINDOW BUTTON (open_in_new icon) Opens the output in a movable window instead of fullscreen. Useful for previewing on a second monitor or for debugging.

CLOSE OUTPUT BUTTON (close icon, red, hidden by default) Appears as soon as an output is active. Clicking it closes the output window and reverts NDIlight to internal preview only.

SEPARATOR

QUIT BUTTON (power_settings_new icon, red) Closes NDIlight cleanly: stops the NDI frame pump, closes every secondary window, releases the Lemon Squeezy license, saves any unsaved changes, and exits the process.

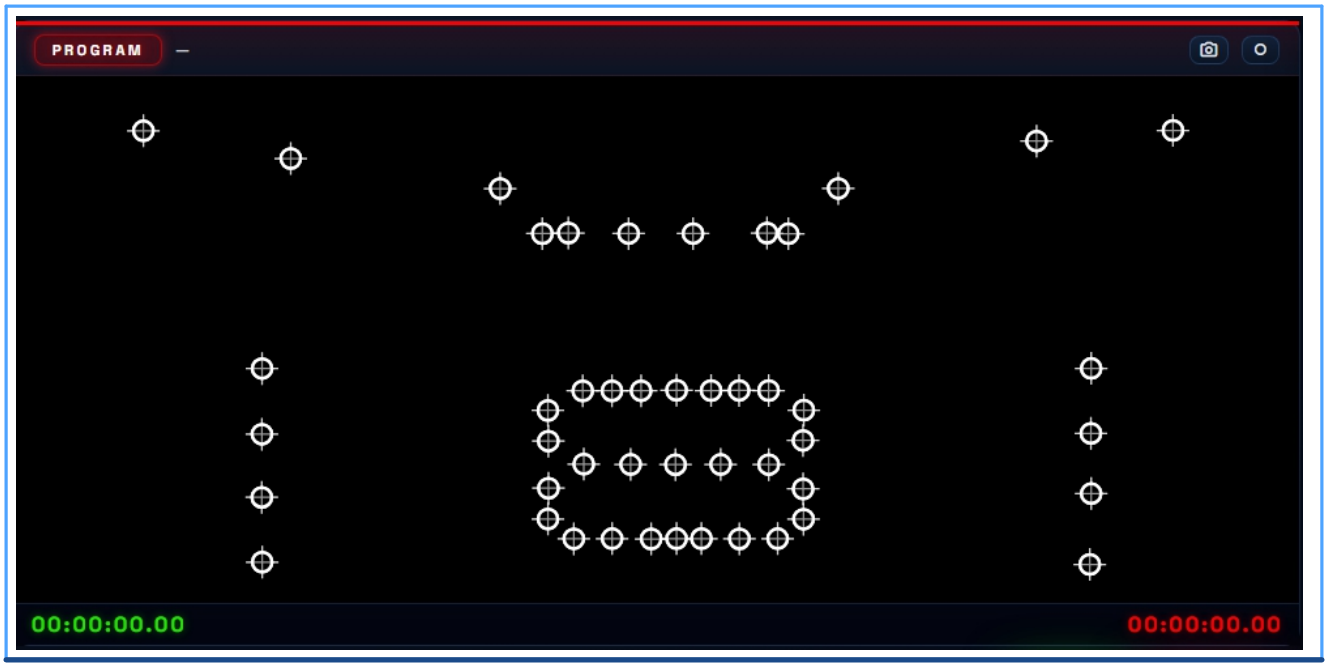
CHAPTER 6 — MONITORS ROW

The monitors row takes about 35 % of the screen height and contains three side-by-side elements: the PREVIEW monitor on the left, the PROGRAM monitor in the center, and the clip settings panel on the right (showing the current tab content).

PREVIEW MONITOR

The preview window shows the clip that is "cued" — that is, the one that will be sent to program on the next press of GO. Unlike most players, NDIlight applies the PlayBack Pro model: the Preview plays continuously, muted, at the same speed as a live render, so the operator can actually see the next clip's movement and content before committing it to air.

- PREVIEW badge (cyan in the default theme, light blue in Dark Crystal): visual flag that this zone is the Preview
- Cued clip name: truncated with "..." if too long
- Video viewport: 16:9 image with black background
- videocam_off placeholder: shown when nothing is cued
- Timecodes under the viewport:
- On the left, elapsed in green — time since the IN point
- On the right, remaining in red — time left until the OUT point (or until the end if OUT is unset)



PROGRAM MONITOR

The program window shows what is currently ON AIR — the live feed sent to DMX, to NDI OUTPUT, and to the fullscreen display. It is also the source that probes sample from.

- Red pulsing PROGRAM badge: makes it obvious you are live
- Currently playing clip name
- SNAPSHOT button (photo_camera icon): captures the current program frame as PNG to your Desktop
- RECORD button (red fiber_manual_record icon): starts MP4 recording of the program feed to your Desktop. Click again to stop and finalize the file
- Video viewport with overlay canvas: shows the image with active probe circles drawn on top
- Timecodes under the viewport:
- elapsed in green
- remaining in red

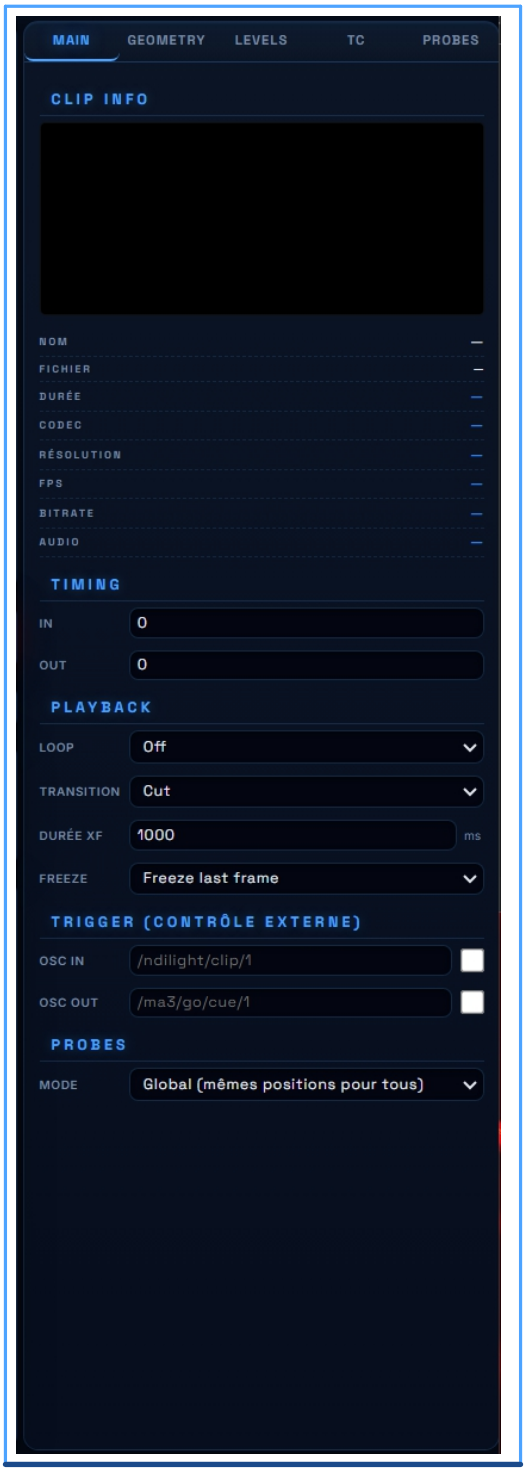
CHAPTER 7 — CLIP SETTINGS PANEL: FIVE TABS

The panel on the right of the monitors row contains a tab bar and the content of the selected tab. The five tabs are:

1. MAIN — general clip info, timing, playback, OSC triggers, probes mode
2. GEOMETRY — aspect ratio, rotation, position, size, crop, mirror, deinterlace
3. LEVELS — audio, subtitles, EQ, compressor, limiter, reverb, loudness, fade, image (gain, saturation, gamma, black level)
4. TC — timecode display, TC emission and reception, OSC, per-clip TC start
5. PROBES — probe display toggles, batch edit, probe list, selected probe config, live levels, add/delete

Only one tab is visible at a time. Clicking a tab hides the previous content and shows the new one.

CHAPTER 8 — MAIN TAB



"CLIP INFO" SECTION

Clip thumbnail (230×130 canvas): auto-generated by ffmpeg at 5 % of the clip duration. Black while the extraction runs.

Read-only key/value fields (filled by ffprobe):

- NOM (NAME): human-readable name. Editable by double-clicking the playlist row
- FICHIER (FILE): full path on disk

- DURÉE (DURATION): total duration formatted HH:MM:SS.FF
- CODEC: detected video codec (e.g. h264, hevc, prores)
- RÉSOLUTION: width × height in pixels
- FPS: native frame rate
- BITRATE: average bit rate in kbps
- AUDIO: number of audio tracks, codec, sample rate

"TIMING" SECTION

IN field: start position in seconds. Playback always starts at this point, no matter where the scrubber currently is. Settable manually, or by pressing the IN button on the transport bar at the current playhead position.

OUT field: end position in seconds. Playback stops or loops (depending on mode) at this point. Settable manually or via the OUT button on the transport bar.

"PLAYBACK" SECTION

LOOP select (Off / On): enables clip self-looping. When on, the clip loops from the OUT point back to the IN point indefinitely as long as it stays in program. This is distinct from the playlist loop marker (see chapter 16).

TRANSITION select (Cut / Crossfade): transition used on GO from preview to program.

- Cut: instant swap, no transition
- Crossfade: audio+video dissolve with configurable duration

XF DURATION field (ms, default 1000, min 100, max 5000): crossfade duration when transition is "Crossfade". Applies to both audio and video crossfade.

FREEZE select (Freeze last frame / Black): behavior when the clip reaches its natural end without being picked up by a GO or auto-advance:

- Freeze: the image stays on the last frame, audio is muted
- Black: the image goes to black, audio is muted

"TRIGGER (external control)" SECTION

OSC IN field: OSC address that, when received by NDIlight, triggers this clip to go to program (software equivalent of pressing GO). Default: /ndilight/clip/N where N is the playlist index. Check the right box to enable.

OSC OUT field: OSC address automatically sent out the moment the clip goes to program. Lets you synchronize grandMA3 by firing a matching GO cue. Default: /ma3/go/cue/N. Check the right box to enable.

"PROBES" SECTION

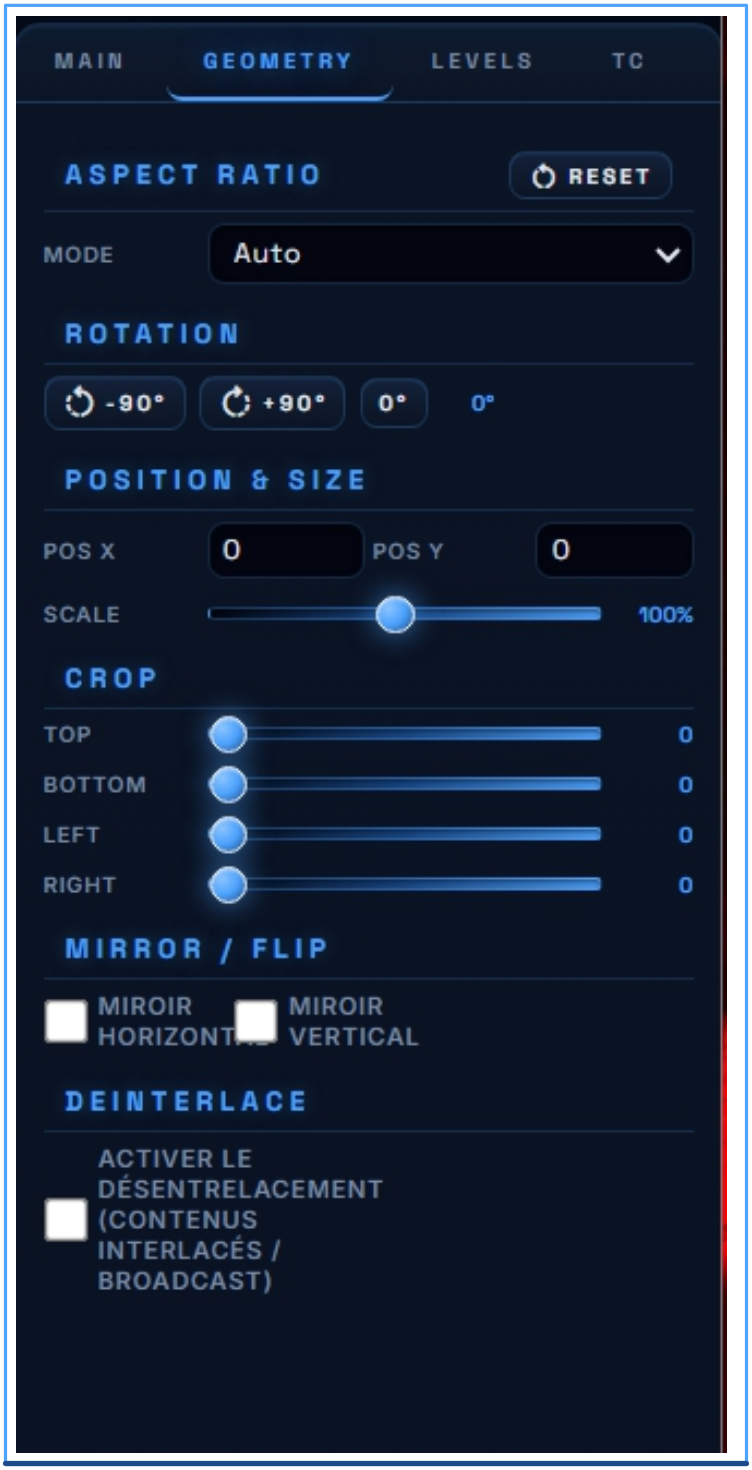
MODE select:

- Global: every probe uses the same positions for every clip in the playlist. Moving a probe affects every clip
- Per clip: each clip can have its own probe positions. Useful when framing changes between clips

SAVE CURRENT POSITIONS button (visible in Per clip mode): captures the current state of every probe (X/Y position and enabled/disabled state) and stores it as a clip-specific override. Next time this clip goes to program, the probes will return to these positions automatically.

CHAPTER 9 — GEOMETRY TAB

Every setting in this tab applies to the program's final render — that is, to what is shown on screen, what is sent as NDI OUTPUT, and what is sampled by the probes.



"ASPECT RATIO" SECTION + RESET button

The RESET button (restart_alt icon in the top right of the section) zeroes every geometry setting: aspect, rotation, pos X/Y, scale, crop top/bottom/left/right.

MODE select:

- Auto: keep the clip's native aspect ratio (the default)
- 16:9: force 16:9 rendering
- 4:3: force 4:3 rendering
- Stretch: fill the viewport, ignore aspect
- Letterbox: center the image with black bars
- Crop to fill: fill the viewport by cropping the edges

"ROTATION" SECTION

Three buttons and a value display:

- -90° button (rotate_left): rotates 90° counter-clockwise
- +90° button (rotate_right): rotates 90° clockwise
- 0° button: resets rotation to zero
- Current value display in degrees

"POSITION & SIZE" SECTION

Pos X and Pos Y fields: horizontal and vertical offset of the render from the viewport center, in pixels. Negative values shift left/up, positive shifts right/down.

SCALE slider (10 to 200 %, default 100 %): scaling factor. 100 % matches native rendering. 50 % shows the image at half size (letterboxed inside the viewport). 200 % doubles it (image overflows and is cropped by the viewport edges).

"CROP" SECTION

Four sliders from 0 to 500 pixels to crop bands off each edge:

- Top: crop top
- Bottom: crop bottom
- Left: crop left
- Right: crop right

"MIRROR / FLIP" SECTION

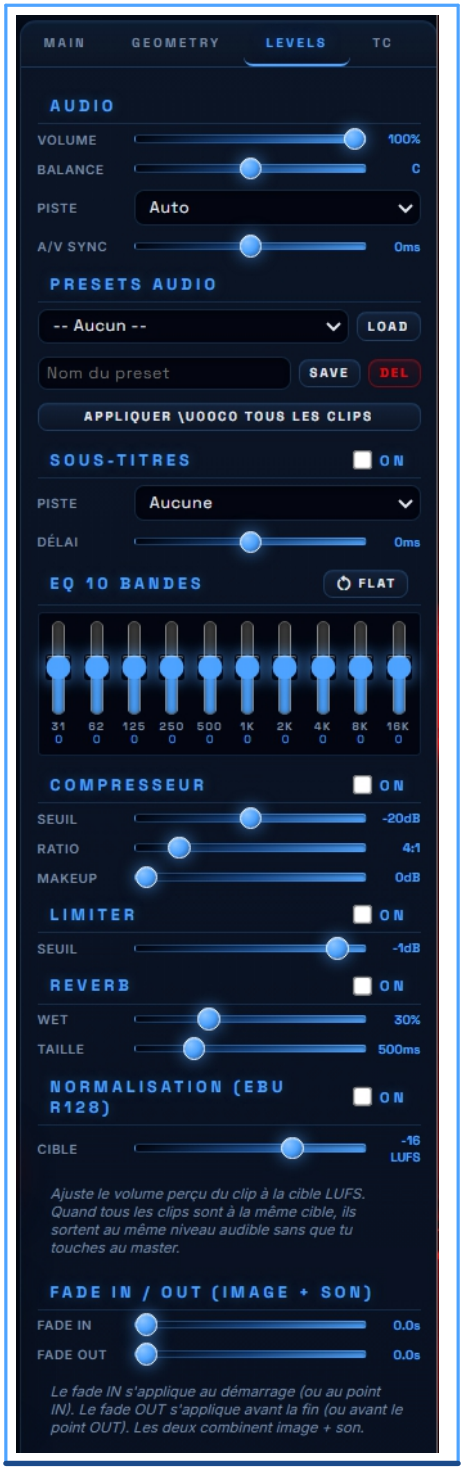
Two checkboxes:

- Horizontal mirror: flips the image left/right
- Vertical mirror: flips the image up/down

"DEINTERLACE" SECTION

"Enable deinterlacing" checkbox: enables MPV's automatic deinterlacer. Check for interlaced sources that typically come from broadcast captures or old SD/HD-SDI footage.

CHAPTER 10 — LEVELS TAB



"AUDIO" SECTION

VOLUME slider (0 to 100 %, default 100 %): per-clip volume, independent of the master. The value sent to the audio device is clip_volume × master_volume.

BALANCE slider (-100 to +100, centered at C): stereo balance. -100 = all left, +100 = all right, 0 = center.

TRACK select: if the clip contains several audio tracks (multiple languages, multicam, commentary), picks which one is sent to output. "Auto" uses the container's default track.

A/V SYNC slider (-500 to +500 ms): audio offset relative to video. Negative = audio plays early, positive = audio plays late. Useful for badly muxed clips or to compensate display processing latency.

"AUDIO PRESETS" SECTION

PRESET select: list of audio presets saved in this session. A preset captures every audio setting of the clip (volume, balance, A/V sync, EQ, compressor, limiter, reverb, loudness).

LOAD button: applies the selected preset to the current clip.

PRESET NAME field: name for the new preset.

SAVE button: saves the current audio settings under the given name.

DEL button: deletes the selected preset.

APPLY TO ALL CLIPS button: pushes the current preset to every clip in the playlist in one go.

"SUBTITLES" SECTION + ON checkbox

ON checkbox: enables/disables subtitle rendering for this clip.

TRACK select: if the clip contains subtitle tracks, picks which one to render. "None" disables.

DELAY slider (-5000 to +5000 ms): subtitle offset relative to the video.

"10-BAND EQ" SECTION + FLAT button

Ten vertical faders for a standard ISO 10-band parametric EQ:

- 31 Hz (sub-bass)
- 62 Hz (deep bass)
- 125 Hz (bass)
- 250 Hz (low-mid)
- 500 Hz (mid)
- 1 kHz (mid)
- 2 kHz (high-mid)
- 4 kHz (presence)
- 8 kHz (treble)
- 16 kHz (air)

Range per band: -12 dB to +12 dB in 0.5 dB steps. The current value is displayed under each fader.

FLAT button: sets every band back to 0 dB in one click.

"COMPRESSOR" SECTION + ON checkbox

ON checkbox: enables/disables the compressor.

THRESHOLD slider (-40 to 0 dB): compressor threshold. The signal starts being reduced when it exceeds this value.

RATIO slider (1 to 20): compression ratio. 4:1 means that for every 4 dB above the threshold, only 1 dB comes out.

MAKEUP slider (0 to 24 dB): make-up gain applied after compression, compensating the level reduction.

"LIMITER" SECTION + ON checkbox

ON checkbox: enables/disables a brick-wall limiter.

THRESHOLD slider (-12 to 0 dB): absolute ceiling. No audio sample may exceed this value. Anti-clipping safety.

"REVERB" SECTION + ON checkbox

ON checkbox: enables/disables the reverb.

WET slider (0 to 100 %): reverb mix. 0 % = dry, 100 % = fully wet.

SIZE slider (50 to 2000 ms): reverb decay time. Longer = bigger room.

"LOUDNESS NORMALIZATION (EBU R128)" SECTION + ON checkbox

ON checkbox: enables EBU R128 loudness normalization. Gain is auto-adjusted so the clip reaches the target perceived level.

TARGET slider (-30 to -10 LUFS, default -16): target level. -23 LUFS is the European broadcast standard. -16 LUFS is typical for streaming / podcast. -14 LUFS for gaming.

When every clip in a playlist is normalized to the same target, they all come out at the same perceived level — no more riding the master between clips.

"FADE IN / OUT (image + sound)" SECTION

FADE IN slider (0 to 10 s): fade-in duration at the start of the clip. Applies both an audio and a video fade.

FADE OUT slider (0 to 10 s): fade-out duration before the end of the clip.

"IMAGE" SECTION + RESET button

The RESET button restores Gain, Saturation, Gamma and Black Level to their defaults.

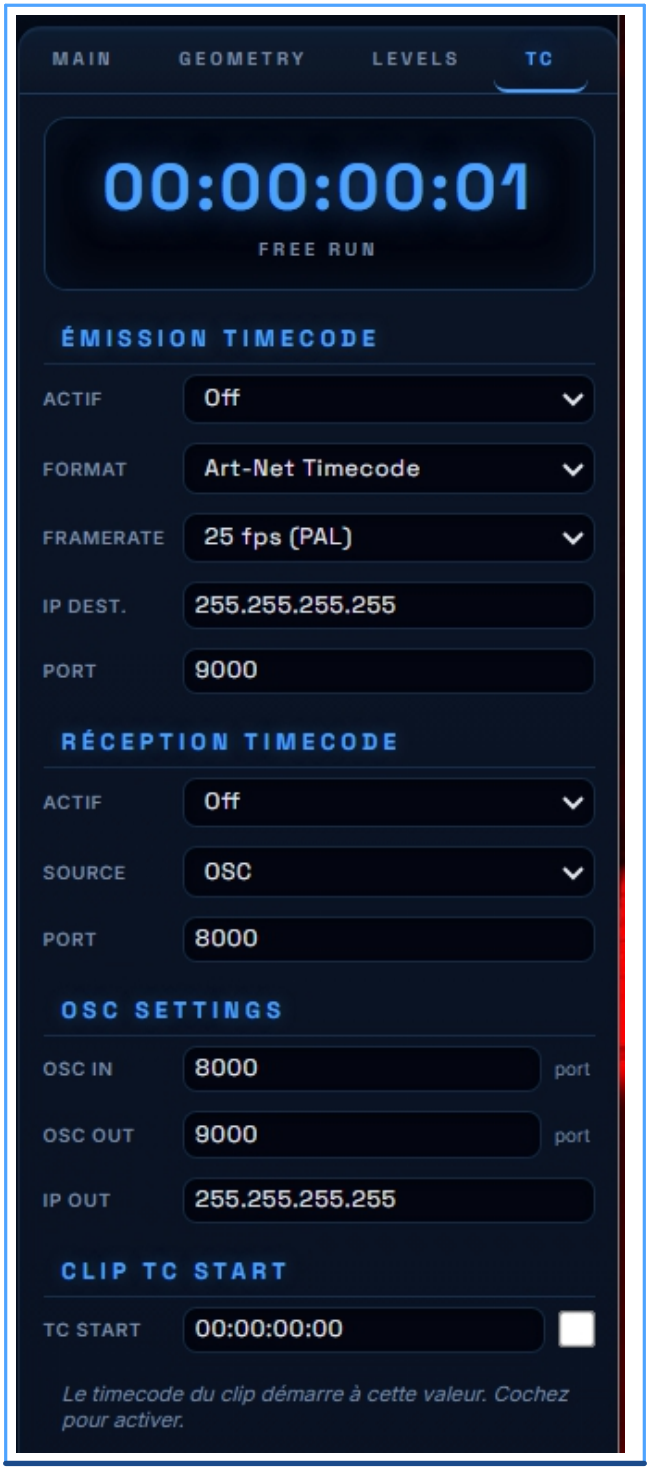
GAIN slider (0 to 2, default 1.00): global luma gain. 1.0 = neutral, 0.5 = half, 2.0 = double.

SATURATION slider (0 to 2, default 1.00): color saturation. 0 = black and white, 1 = neutral, 2 = fully saturated.

GAMMA slider (0.1 to 3, default 1.00): gamma correction. Values below 1 brighten the shadows, above 1 darken them.

BLACK LEVEL slider (0 to 50, default 0): threshold below which pixels are crushed to black. Increases contrast by crushing blacks.

CHAPTER 11 — TC TAB (TIMECODE)



BIG TIMECODE DISPLAY

A large digital clock showing the current position as HH:MM:SS:FF. Below the digits, a status indicator:

- FREE RUN: NDIlight generates its own timecode based on the program playback position
- GENERATING: TC emission is active, the clock is running and being streamed on the network
- CHASE: NDIlight is receiving an external timecode and chasing it with playback

"TC EMISSION" SECTION

ACTIVE select (Off / On): enables or disables emission.

FORMAT select:

- Art-Net Timecode: broadcast ArtTimeCode UDP packet
- OSC: OSC message sent to the configured address

FRAMERATE select:

- 24 fps (Film)
- 25 fps (PAL / European standard)
- 29.97 fps (NTSC drop frame)
- 30 fps (NTSC non-drop)

IP DEST field: destination IP. Use 255.255.255.255 to broadcast across the local subnet.

PORT field: destination UDP port (typically 9000 for OSC, 6454 for Art-Net).

"TC RECEPTION" SECTION

ACTIVE select (Off / On Chase): enables TC reception and playback chase.

SOURCE select:

- OSC: listen on an OSC port for TC messages
- Art-Net Timecode: listen for ArtTimeCode packets

PORT field: listening UDP port (typically 8000 for OSC).

"OSC SETTINGS" SECTION

OSC IN port: UDP port on which NDIlight listens for incoming OSC messages. Also used by per-clip OSC In triggers (see the MAIN tab).

OSC OUT port: UDP destination port for outgoing OSC messages.

IP OUT: destination IP for outgoing OSC.

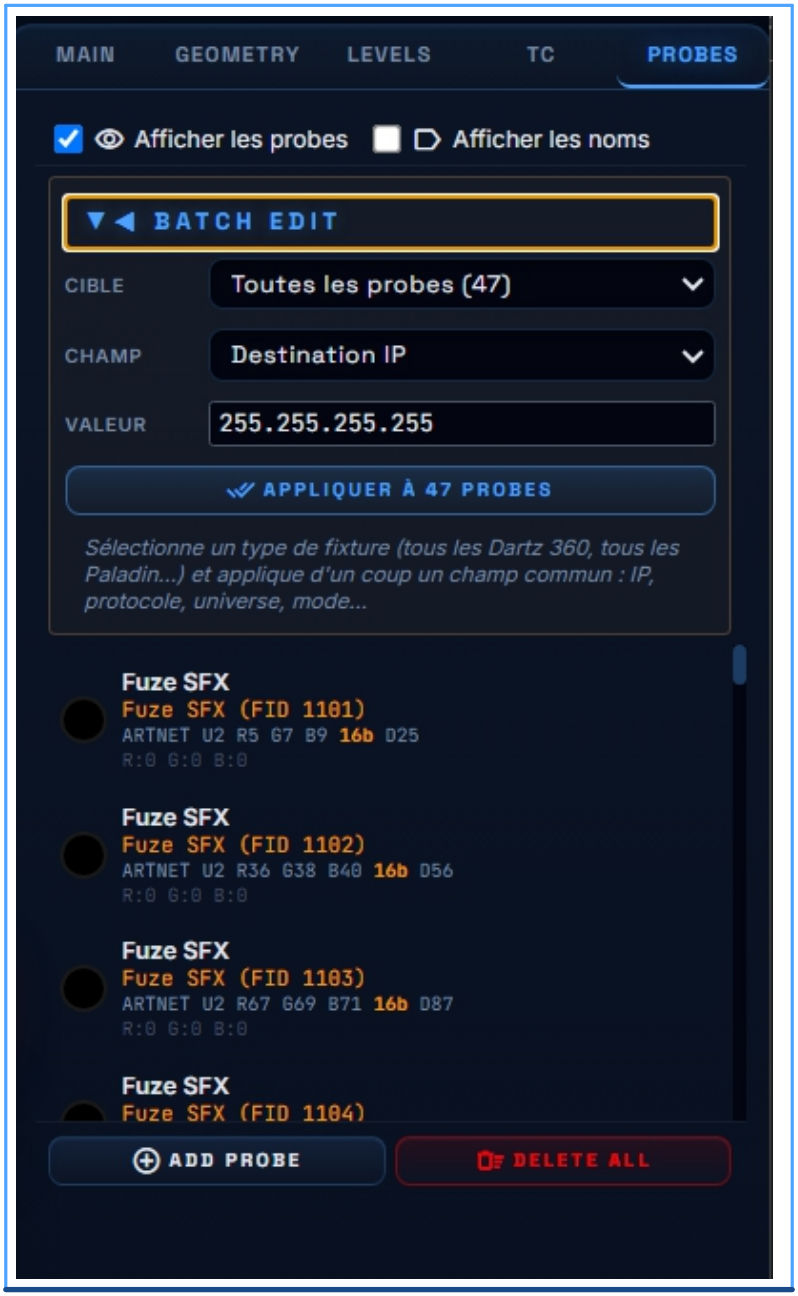
"CLIP TC START" SECTION

TC START field: timecode shown as the clip's starting time, formatted HH:MM:SS:FF. Lets a clip be synced to a house timecode rather than starting from zero.

"Enable TC for this clip" checkbox: must be checked for the TC Start to be used. Otherwise the clip starts at 00:00:00:00.

CHAPTER 12 — PROBES TAB

This tab holds every setting tied to color probes — the circles that sample the color of a specific point in the image and output the RGB values as DMX.



"DISPLAY TOGGLES" ROW

"Show probes" checkbox (visibility icon): hides or shows the colored circles on the Program viewport.

"Show names" checkbox (label icon): hides or shows the label next to each probe.

COLLAPSIBLE "BATCH EDIT" PANEL

Lets you change a common field across several probes in one pass. Handy when you have 32 identical fixtures and want to bulk-change their IP or universe.

TARGET select: which probe group to target. "All probes" by default. Can also filter by fixture type imported from a MA3 export (Dartz 360, Paladin, etc.).

FIELD select: which parameter to change:

- Destination IP
- Protocol (Art-Net / sACN)
- Universe
- Net
- Subnet
- RGB mode
- RGB order
- Auto-Dimmer
- Color space (RGB / CMY)
- Enabled / Disabled
- Radius (in pixels)

VALUE field: the value to apply. The input type (text, number, select) adapts to the selected field.

APPLY TO N PROBES button: applies in one pass. The N counter updates in real time based on the current target selection.

PROBE LIST

Scrollable. Each row shows the probe's name, a color chip with the sampled color and the live R/G/B values. Click to select and edit.

"PROBE CONFIGURATION" PANEL

Only shown when a probe is selected.

NAME field: human-readable name. Used in MA3 exports and display.

RADIUS field (1 to 50): radius in pixels of the sampling circle. Larger = averages more pixels, smoother but less precise.

UNIVERSE field (1 to 15): Art-Net / sACN universe number.

SUBNET field (0 to 15): Art-Net subnet (usually 0).

NET field (0 to 127): Art-Net net (usually 0).

DMX CHANNEL field (1 to 509): starting DMX channel of the probe inside the universe. The probe occupies several consecutive channels based on its mode (3 for RGB, 4 for RGBA, etc.).

PROTOCOL select:

- Art-Net: UDP broadcast or unicast, Art-Net v4
- sACN (E1.31): multicast streaming ACN, the standard for professional lighting installations

MODE select (eight color modes):

- RGB (3 channels)
- RGB 16bit (6 channels)
- RGBA (4 channels)

- RGBW (4 channels)
- RGB+Dim (4 channels, separate dimmer)
- RGBAW (5 channels)
- RGB+WW+CW (5 channels, warm white + cool white)
- RGB 16bit+Dim (7 channels)

ORDER select: channel transmission order. Some fixtures expect colors in a different order from R-G-B:

- R G B
- R B G
- G R B
- G B R
- B R G
- B G R

DEST IP select: destination IP. The list is pre-populated with common addresses. "Broadcast (255.255.255.255)" by default.

"AUTO-DIMMER" SUB-SECTION

DIMMER select:

- Off: no auto dimmer, colors go straight out
- Auto (Max RGB): the dimmer channel receives max(R, G, B)
- Auto (Luminance): the dimmer receives ITU-R BT.709 luminance (0.2126*R + 0.7152*G + 0.0722*B)
- Auto (RGB Average): the dimmer receives (R+G+B)/3

CH. DIM field: dimmer channel number if the fixture has a separate dimmer channel.

"LIVE LEVELS" SUB-SECTION

Real-time display of every channel value of the selected probe:

- R bar (red)
- G bar (green)
- B bar (blue)
- W bar (white) — only visible for RGBW, RGBAW, RGB+WW+CW
- D bar (dimmer) — only visible when Auto-Dimmer is enabled

Each bar shows the 0-255 value and a horizontal graphic representation.

ACTION BUTTONS

DUPLICATE button: makes a copy of the selected probe with the same DMX parameters. The start channel is auto-incremented.

DELETE button (red): removes the selected probe after confirmation.

BOTTOM BAR

ADD PROBE button (add_circle icon): creates a new probe at the center of the viewport. You then drag it to the desired point on the image.

DELETE ALL button (red, delete_sweep icon): deletes every probe in the session after confirmation. Irreversible.

CHAPTER 13 — TRANSPORT BAR

The transport bar sits on a single horizontal line under the monitors and holds every playback control, the VU meters and the show buttons (GO/STOP).

GROUP 1 — TRANSPORT (seven square buttons)

PREV button (first_page icon): jumps to the first enabled clip in the playlist. No effect if you are already on the first.

REWIND button (fast_rewind icon): jumps to the previous enabled clip in the playlist. Skips disabled clips.

PLAY button (play_arrow icon, accent green, larger): starts program playback. If nothing is cued, cues the first clip and starts.

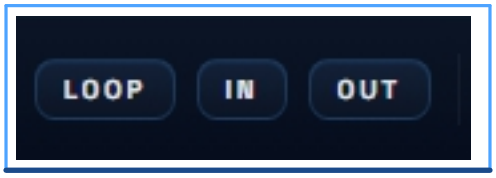
PAUSE button (pause icon): pause/resume program playback.

STOP & RESET button (stop icon): transport stop. Stops playback and seeks back to the IN point to be ready to replay. Does NOT unload the program, does NOT black out the output. For a full blackout, use the big red STOP button in the show controls on the right.

FORWARD button (fast_forward icon): jumps to the next enabled clip in the playlist.

NEXT button (last_page icon): jumps to the last enabled clip.

SEPARATOR



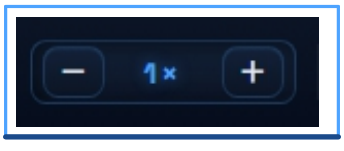
GROUP 2 — POINTS (three small text buttons)

LOOP button: toggles clip self-loop. Affects clip.loop. Distinct from the per-row loop marker in the playlist (setlist loop).

IN button: sets the IN point to the current playhead position in the program.

OUT button: sets the OUT point to the current playhead position in the program.

SEPARATOR



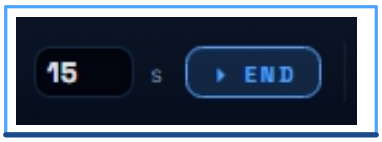
GROUP 3 — SPEED

"–" button: halves playback speed (0.5×, 0.25×, etc.). Double-click the display to reset to 1×.

SPEED display: "1×" by default, shows the current speed.

"+" button: doubles playback speed (2×, 4×, 8×, 16×). Useful for fast preview or slow-motion.

SEPARATOR



GROUP 4 — QUICK GOTO

Numeric field (default 15): number of seconds to use for quick goto.

"s" label: unit (seconds).

"■ END" button (accent cyan): jumps to N seconds before the end of the program clip, where N is the field value. Handy for testing how the final transition plays out.

SEPARATOR

GROUP 5 — VU METERS + MASTER

L VU meter (horizontal canvas): left channel level with green / yellow / red gradient. Red starts at -6 dBFS.

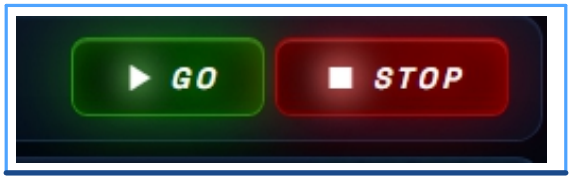
R VU meter: right channel.

MASTER label: title for the master volume slider.

VOLUME slider (0 to 100 %): master volume. Multiplies each clip's individual volume. If the clip is at 100 % and the master at 50 %, audio comes out at 50 %.

VALUE display: current master percentage.

SEPARATOR



GROUP 6 — SHOW CONTROLS

Two beveled broadcast-style console buttons:

GO button (large, green, play_arrow icon): sends the cued preview clip to program. If a Crossfade transition is configured on the clip, starts the dissolve. Otherwise cuts. After the GO, auto-cues the next enabled clip in preview (if autoAdvance is on).

STOP button (large, red, stop icon): instant full blackout. Unloads program AND preview from MPV, paints both canvases black, sends black to NDI OUTPUT, and resets previewIndex and programIndex to -1. The operator must click a clip again to resume.

CHAPTER 14 — TIMELINE BAR

The timeline visually represents the playback position in the program clip (or preview if the program is empty).

IN CHEVRON: draggable triangle on the left of the timeline, materializes the IN point. Drag to change the IN point. An "IN" label shows the raw value.

OUT CHEVRON: symmetric, materializes the OUT point.

REGION BAR: colored band between the IN and OUT chevrons, represents the active playback range.

PROGRESS BAR: lighter sub-band that grows from IN up to the current position, shows how much has been played.

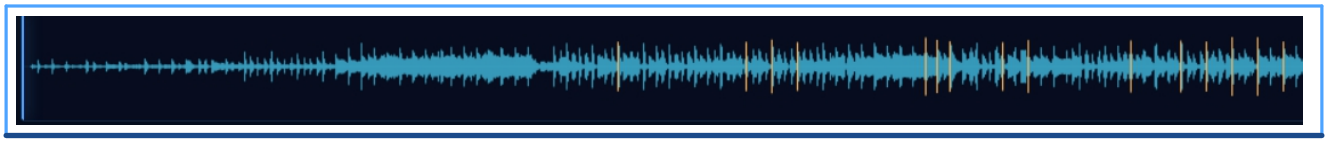
PLAYHEAD: accent vertical line showing the current position.

To the right, two text displays:

- TOTAL DURATION: total clip time (green mono)
- SYSTEM CLOCK: wall clock time (HH:MM:SS)

CHAPTER 15 — WAVEFORM BAR

The waveform bar shows the audio waveform of the program/preview clip, with zoom and marker controls.



ZOOM BOX (left)

"ZOOM" label

IN button (zoom_in): zoom in on the waveform. Centered on the current playhead position.

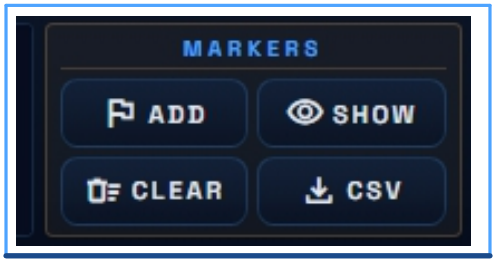
OUT button (zoom_out): zoom out.

FIT button (fit_screen): reset the zoom so the whole waveform fits in the canvas.

Info cell: shows the current scale and the visible duration.

CENTRAL CANVAS

Stereo audio waveform rendering with a mini vertical playhead tracking playback in real time. Click the waveform to seek to that position.



MARKERS BOX (right)

"MARKERS" label

ADD button (flag): drops a marker at the current position. Markers are saved with the clip and can be exported.

SHOW button (visibility): hide/show the markers on the waveform.

CLEAR button (delete_sweep): removes every marker from the current clip.

CSV button (download): exports markers as a grandMA3-compatible CSV (timecode + label).

CHAPTER 16 — PLAYLIST

The playlist is the main work area: this is where you order your clips for the show.

PLAYLIST HEADER

"PLAYLIST" label

Counter badge: live count of "N clips".

TRANSITION select (CUT / XFADE): default transition used for newly added clips.

CROSSFADE DURATION field (ms, default 1000): default crossfade duration.

LOOP MODE select:

- NO LOOP: once the last clip is done, the playlist stops
- LOOP 1: the current clip self-loops
- LOOP ALL: after the last clip, wraps back to the first enabled clip

"+ CLIP" button: opens the explorer to add a video file to the playlist.

CLEAR button: empties the playlist (with confirmation).

CLIP ROWS

Scrollable. Each row shows:

Drag handle (≡): hold and drag to reorder the playlist.

Number: position in the playlist (1, 2, 3...). Also used as the default number for OSC triggers.

Clip name: truncated with "..." if too long.

Transition label: CUT (straight cut), XF (crossfade) or LIVE (for an NDI clip).

Toggle on/off button (toggle_on / toggle_off): enables or disables the clip. Disabled clips are skipped by Prev/Next, auto-advance, and Play. Use this to temporarily remove a clip from the setlist without deleting it.

LOOP button (restart_alt icon, green/blue when active): flags this clip as "setlist loop end". Mutually exclusive — only one clip at a time can carry this marker. When the playlist reaches and finishes this clip, it restarts from the first enabled clip, letting you loop the whole setlist while respecting disabled clips. Distinct from clip.loop which loops a clip on itself.

DELETE button (delete icon, red on hover): deletes the clip from the playlist after confirmation.

Side color bar:

- ORANGE/AMBER: clip currently in PROGRAM (on air)
- CYAN/BLUE: clip cued in PREVIEW
- NORMAL: inactive clip
- REDUCED OPACITY + STRIKETHROUGH: disabled clip

INTERACTIONS

Single click on a row: selects the clip, opens its settings in the right panel, and cues it in preview (plays muted, PlayBack Pro model).

Double click: same thing. Does not directly send the clip to program anymore — compliant with the PlayBack Pro model where only the GO button sends preview to program.

Drag and drop: reorders the clips.

CHAPTER 17 — STATUS BAR

20 px high line at the bottom of the screen showing the system indicators at all times.

LEFT SIDE

Art-Net LED dot:

- Green: Art-Net output is active, packets are going out
- Red: error (invalid network interface, permission)
- Gray: inactive (no probes configured or disabled)

"Art-Net" label

NDI LED dot:

- Green: NDI OUTPUT is active and streaming
- Red: NDI sender creation error
- Gray: NDI OUTPUT disabled

"NDI" label

SEPARATOR

Active source name: "file: clip_name" or "NDI: SourceName" or "stream: URL".

SEPARATOR

Resolution: program dimensions in pixels, updated on every source change.

SEPARATOR

Probe count: "N probes" where N is the total number of probes configured in the session.

RIGHT SIDE

"NDIlight v1.0" text — version identifier.

CHAPTER 18 — NDI SOURCES MODAL

Appears when you click the NDI tab in the top bar.

HEADER: cast_connected icon + "NDI SOURCES" title.

"Searching..." indicator: shows a spinner while the NDI finder scans the network. Can take 1 to 8 seconds depending on your LAN's mDNS convergence.

SOURCES LIST: one row per detected NDI source. The full source name (e.g. STATION-UNREAL (Program)) is shown. Click to select, then click CONNECT to add it to the playlist as a LIVE clip.

ACTION BUTTONS

REFRESH button (refresh icon): triggers a fresh scan. Handy if you just started a source on another machine.

CANCEL button: closes the window without doing anything.

CHAPTER 19 — STREAM INPUT MODAL

Appears when you click the STREAM tab in the top bar.

HEADER: stream icon + "STREAM INPUT" title.

URL FIELD: text input to paste the stream URL. Supported formats:

- HLS: http://example.com/stream.m3u8
- RTSP: rtsp://cam.lan/stream1
- RTMP: rtmp://live.server/app/key
- SRT: srt://sender.lan:9000
- Direct HTTP/HTTPS: http://server/video.mp4

Info text: lists the recognized formats.

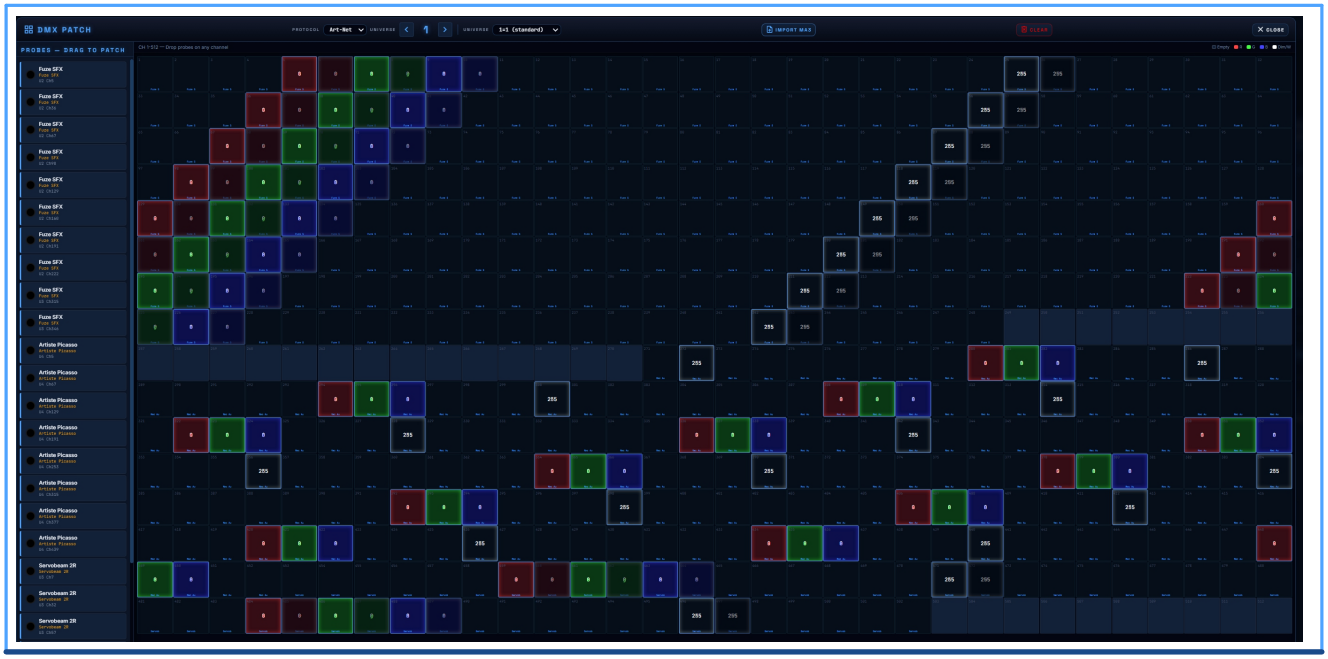
ACTION BUTTONS

CANCEL button: closes without doing anything.

CONNECT button (accent cyan): tries to open the stream and adds it to the playlist as a "LIVE stream" clip.

CHAPTER 20 — DMX PATCH WINDOW

Large window taking about 60 % of the screen. Lets you visualize and reorganize probe assignment across the 512 DMX channels of each universe.



HEADER

"DMX PATCH" title + grid_view icon.

PROTOCOL select:

- Art-Net
- sACN

"UNIVERSE" label

Left chevron button: previous universe.

Current universe display: number (typically 1 to 16).

Right chevron button: next universe.

SEPARATOR

"UNIVERSE" label + DMX offset select:

- "1=1 (standard)": 1-based numbering
- "0=1 (offset -1)": 0-based numbering (ESP, some controllers)

IMPORT MA3 button (amber, upload_file icon): imports a grandMA3 patch export file. Probes are auto-created with the correct assignments.

CLEAR button (red, delete_forever icon): empties the patch of the current universe after confirmation.

CLOSE button (close icon): closes the window.

BODY — TWO COLUMNS

Left column (25 %) — PROBE POOL

"PROBES — DRAG TO PATCH" label

List of available probes. Each probe is shown as a draggable card with its name and current DMX parameters.

"NEW PROBE" button (add_circle icon) at the bottom: creates a new probe to patch.

Right column (75 %) — CHANNEL GRID

Color legend at the top:

- Empty
- R (red channel)
- G (green channel)
- B (blue channel)
- Dim/W (dimmer or white)

Visual grid of 512 cells representing the 512 DMX channels of the current universe, arranged as 16 rows × 32 columns. Each cell is color-coded by the type of channel it holds.

Drop zone: drag a probe from the left column and drop it on a cell. The probe will occupy several consecutive channels based on its mode (3 for RGB, 6 for RGB 16bit, etc.).

CHAPTER 21 — DMX MONITOR MODAL

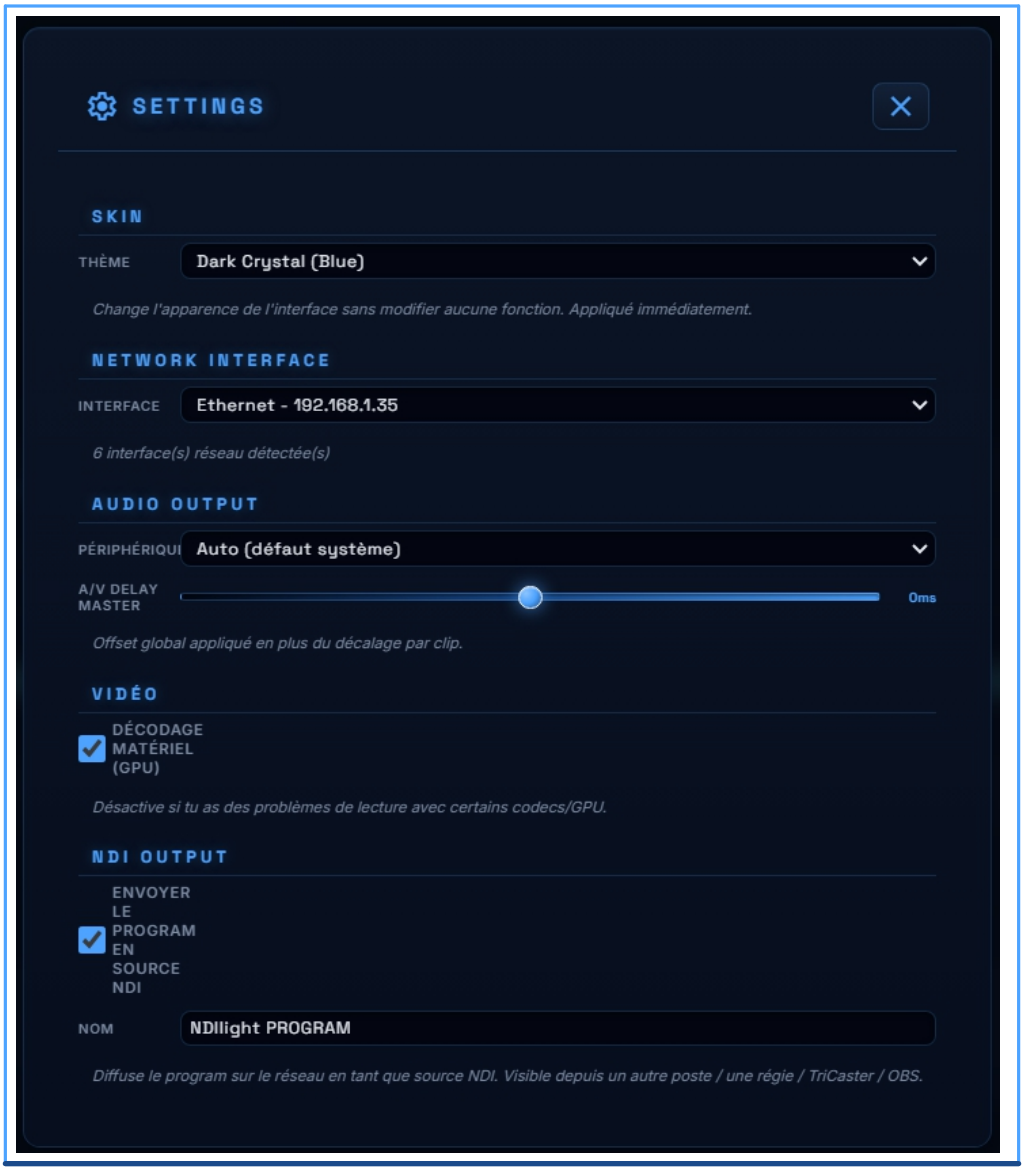
Appears when you click the equalizer icon in the top bar (DMX output diagnostic).

HEADER: equalizer icon + "DMX MONITOR" title + close button.

LIVE GRID: shows the 0-255 value of every active DMX channel in real time, refreshed around 15 times per second. Lets you visually verify what is actually going out on the Art-Net/sACN network.

CHAPTER 22 — SETTINGS WINDOW

Appears when you click SETTINGS in the top bar.



HEADER: settings icon + "SETTINGS" title + close button.

"SKIN" SECTION

THEME select:

- Default (Cyan): historical theme with cyan accents
- Dark Crystal (Blue): "crystal" theme with electric blue accents, navy gradients, rounded corners, dark-to-light gradient faders, glass effect

Info: "Change the interface look without altering any function. Applied immediately."

The skin is saved in the config and persists across sessions.

"NETWORK INTERFACE" SECTION

INTERFACE select: lists the machine's physical network interfaces. The selected interface is used for Art-Net output. Critical if your machine has several NICs (for example one dedicated to DMX).

Info: shows the IP and CIDR of the selected interface.

"AUDIO OUTPUT" SECTION

DEVICE select: lists the audio devices detected by MPV. "Auto (system default)" uses the device configured by Windows.

A/V DELAY MASTER slider (-500 to +500 ms): global audio offset applied on top of the per-clip offset. Compensates latency from a display or an external audio processor.

"VIDEO" SECTION

"Hardware decoding (GPU)" checkbox: enables GPU video decoding (NVIDIA NVDEC, Intel QuickSync, AMD VCN). Saves CPU for h264/hevc clips but can cause issues with exotic codecs or old GPUs. Disable if clips show artifacts or crash.

"NDI OUTPUT" SECTION

"Send program as NDI source" checkbox: enables the NDI sender which broadcasts the program on the local network as an NDI source visible from another machine, a TriCaster control room, OBS, vMix, etc.

NAME field: NDI source display name (default "NDIlight

PROGRAM").

Info: "Broadcasts the program on the network as an NDI source. Visible from another machine / a control room / TriCaster / OBS."

CHAPTER 23 — TROUBLESHOOTING

IF NDI SOURCES ARE NOT DETECTED

1. Make sure NDIlight was installed with the Windows firewall rules in place. Reinstall the app and accept the UAC elevation during setup.
2. Install the official NDI Tools (NDI Monitor, NDI Studio Monitor) and check that NDI Monitor sees remote sources. If it does, packets are flowing correctly on the network. NDIlight loads the official NDI Runtime DLL in priority to stay consistent with NDI Monitor's behavior.
3. Open the NDIlight log at %APPDATA%\NDIlight\logs\bootstrap.log and look for [ndi-worker stderr] lines. They tell you which DLL was loaded and how many sources were found by the worker.

IF A CLIP DOESN'T PLAY

1. Check that the clip's toggle switch is ON (green) in the playlist. A disabled clip is skipped.
2. Check that the file was not moved or renamed. NDIlight stores the absolute path.
3. Test the file in an external player (VLC, MPV). If the file is broken, NDIlight cannot play it either.

IF THE LICENSE IS REJECTED

1. Check your Internet connection. The first activation requires access to the Lemon Squeezy servers.
2. Check that the key you entered matches the one sent by email after your purchase.
3. Each license is tied to a limited number of machines (activations). If you switched PCs, you may need to deactivate an old instance from your Lemon Squeezy account.

IF THE FULLSCREEN OUTPUT IS BLACK

1. Make sure the correct display is selected in the OUTPUT dropdown of the top bar.
2. Click CLOSE OUTPUT, then click FULLSCREEN again.
3. In SETTINGS, disable hardware decoding if some clips show black in fullscreen.

CHAPTER 24 — BITFOCUS COMPANION INTEGRATION (STREAM DECK)

NDIlight includes a built-in WebSocket server that lets Bitfocus Companion (and therefore an Elgato Stream Deck, a touch screen, or any other Companion control surface) control the entire application in real time, with live visual feedback on every button.

WHAT IS BITFOCUS COMPANION?

Bitfocus Companion is a free, open-source application that turns an Elgato Stream Deck (or any other physical control surface) into a universal broadcast control panel. It runs a web interface at http://localhost:8000 where you visually configure your buttons, actions, feedbacks and variables.

Companion supports hundreds of broadcast devices and software: vMix, OBS, ATEM, TriCaster, grandMA3, QLab, Resolume, ProPresenter, and now NDIlight.

REQUIREMENTS

- A Windows PC with NDIlight installed and running
- A PC (same one or another on the same network) with Bitfocus Companion installed
- Optional but recommended: an Elgato Stream Deck (Standard, XL, Mini, or MK.2). Companion also works without physical hardware via its built-in web emulator

STEP 1 — INSTALL COMPANION

1. Go to https://bitfocus.io/companion
2. Click "Download" and get the Windows version
3. Run the installer and follow the prompts
4. On first launch, Companion automatically opens your default browser to http://localhost:8000

STEP 2 — INSTALL THE NDILIGHT MODULE

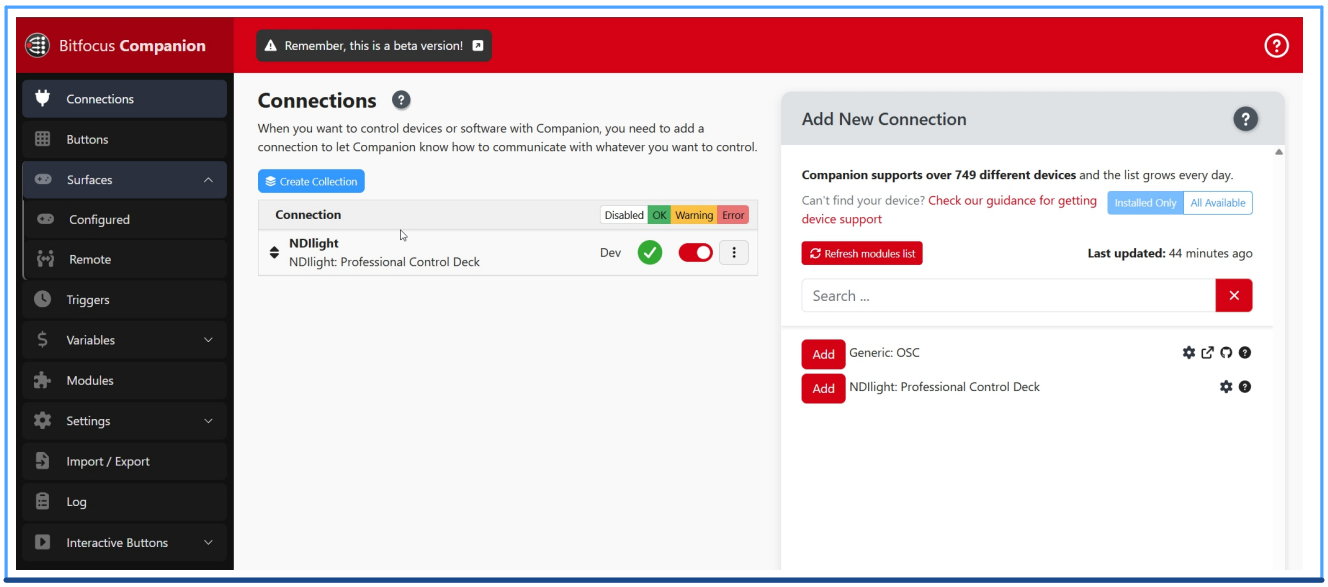
The NDIlight module is not yet published on the official Companion module store. Manual installation:

1. Open Windows Explorer and navigate to: %APPDATA%\bitfocus-companion\module-local-dev\ (create the module-local-dev folder if it does not exist)

2. Copy the companion-module-ndilight folder shipped with your NDIlight installation into this directory. You should end up with: %APPDATA%\bitfocus-companion\module-local-dev\ companion-module-ndilight\ package.json src\ companion\

3. Open a terminal (cmd or PowerShell) inside the companion-module-ndilight folder and run: npm install This downloads the module's dependencies (takes about 30 seconds).

4. Restart Companion (close and relaunch it). The NDIlight module now appears in the list of available connections.



STEP 3 — CONFIGURE THE CONNECTION

1. In the Companion web interface (http://localhost:8000), click "Connections" in the left sidebar
2. In the search field at the top, type "NDIlight"
3. Click the "NDIlight" module to add it
4. Fill in the connection settings:

- HOST: the IP address of the machine running NDIlight. If Companion and NDIlight are on the same PC, enter 127.0.0.1. If NDIlight is on another PC on the network, enter its IP (e.g. 192.168.1.35)
- PORT: 19877 (default NDIlight WebSocket port — only change this if you modified it in NDIlight)

5. Click "Save". The status indicator turns green (OK) if the connection is established.
6. If the indicator stays orange or red:

- Make sure NDIlight is running on the target machine
- Check that Windows Firewall allows TCP port 19877
- Verify both machines are on the same subnet

STEP 4 — DRAG AND DROP PRESETS

1. In Companion, click "Buttons" in the sidebar
2. Select the Stream Deck page you want to configure (Page 1, 2, etc.)
3. In the right column, click "Presets" and expand the "NDIlight" category
4. You will find the following presets organized by category:

TRANSPORT category:

- PREV: previous clip
- PLAY: start playback (turns green when active)
- PAUSE: pause (turns amber when active)
- STOP: stop and black the program
- GO: send preview to program (big green button)
- NEXT: next clip

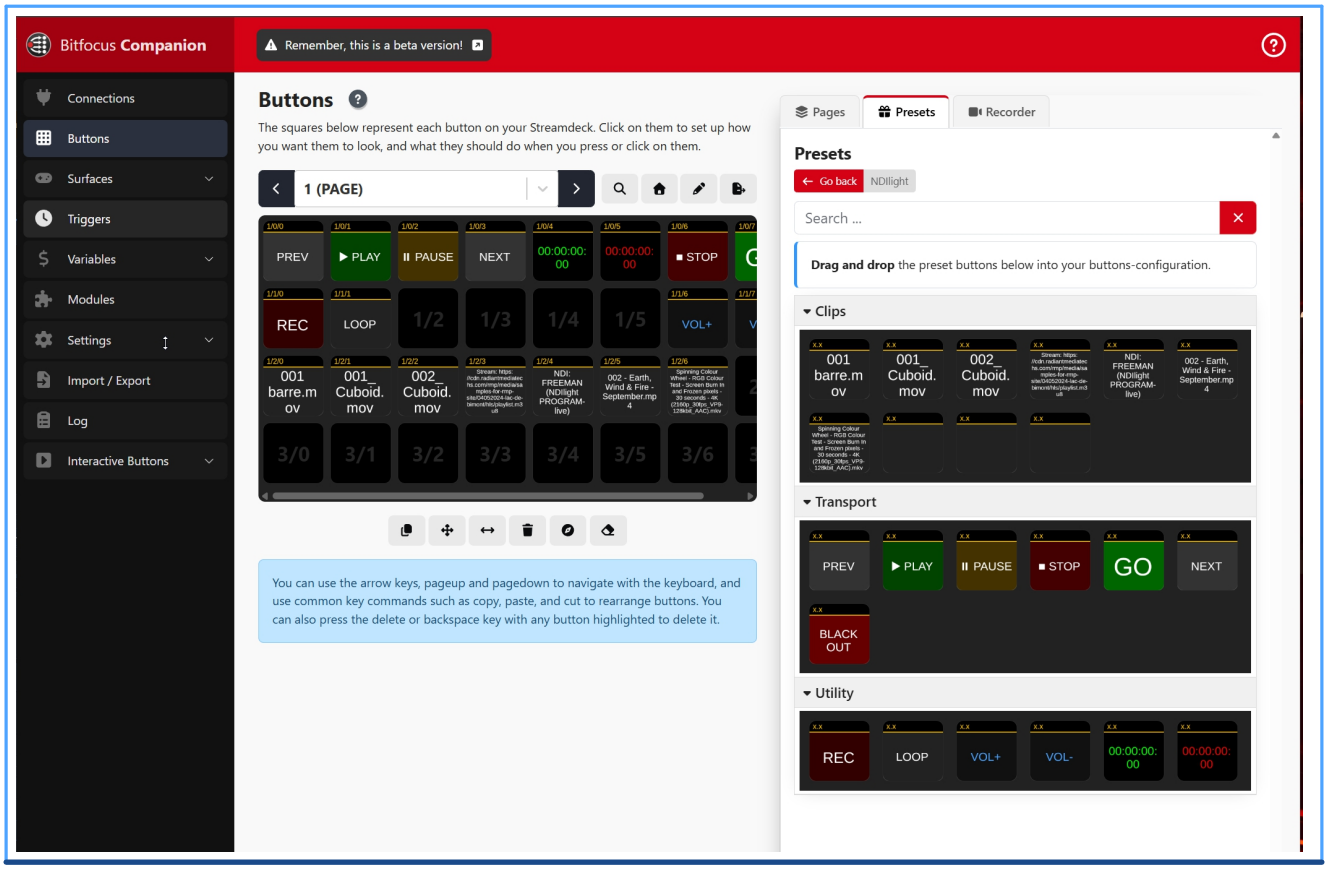
- BLACKOUT: total kill switch (program + preview + NDI goes black)

CLIPS category:

- Clip 1 through Clip 10: each button dynamically shows the name of the corresponding clip. The button turns ORANGE when the clip is on air (program) and BLUE when cued (preview). A single press fires a GO to that clip.

UTILITY category:

- REC: start/stop MP4 recording (red when active)
- LOOP: toggle clip loop (blue when active)
- VOL+: raise master volume by 5%
- VOL-: lower master volume by 5%
- Timecode: shows program timecode live (HH:MM:SS:FF in green)
- Remaining: shows remaining time live (in red)
- SNAP: capture PNG screenshot of the program
- OUTPUT: open/close the output display window



5. To use a preset: drag it from the right column and drop it onto a cell of your Stream Deck grid in the center. The button works immediately.

6. To customize a button: click on an already configured cell and modify its action, feedback or text in the right panel.

STEP 5 — VERIFY EVERYTHING WORKS

1. Launch NDIlight on the target machine
2. Add at least 2 clips to the playlist
3. In Companion, verify the NDIlight indicator is green (connected)

4. Press the PLAY button on your Stream Deck: playback should start in NDIlight
5. Press GO: the preview clip goes to program
6. Watch the Clip buttons: the one in program is orange, the one cued in preview is blue
7. Watch the Timecode button: it scrolls in real time

EXAMPLE STREAM DECK LAYOUT (15 BUTTONS)

Row 1: PREV | PLAY | PAUSE | STOP | GO Row 2: Clip 1 | Clip 2 | Clip 3 | Clip 4 | Clip 5 Row 3: REC | LOOP | VOL+ | VOL- | 00:15:23:02

Clip names appear automatically. Colors change in real time. Timecode scrolls live.

COMPLETE LIST OF 21 AVAILABLE ACTIONS

1. GO (Take) — send preview to program
2. STOP (Black) — black the program output
3. Play — start playback
4. Pause — pause playback
5. Blackout All — total kill switch
6. CUE Clip by number — cue a specific clip
7. Next — next clip in playlist
8. Prev — previous clip in playlist
9. Master Volume Set — set master volume (0-100%)
10. Master Volume +5% — increase by 5%
11. Master Volume -5% — decrease by 5%
12. Clip Volume Set — set per-clip volume
13. Toggle Loop — enable/disable clip loop
14. Toggle Loop End — mark/unmark setlist loop end
15. Set Speed — change playback speed (0.25x / 0.5x / 1x / 2x / 4x)

16. Set IN — set IN point at current position
17. Set OUT — set OUT point
18. Clear IN/OUT — clear both IN and OUT points
19. Snapshot — capture current frame as PNG
20. Toggle Record — start/stop MP4 recording
21. Open/Close Output — open or close the output window

LIST OF 9 VISUAL FEEDBACKS

1. Clip is ON AIR — button turns orange when the specified clip is in program
2. Clip is CUED — button turns blue when the clip is cued in preview
3. Playing — green when program is playing
4. Paused — amber when program is paused
5. Recording — red when MP4 recording is in progress
6. Loop Active — blue when a loop mode is active
7. Art-Net Active — green when DMX Art-Net output is running
8. NDI Active — green when NDI output is streaming
9. Output Open — blue when the output window is active

DYNAMIC VARIABLES

Variables can be inserted into the text of any Companion button using the syntax $(ndilight:variable_name).

- $(ndilight:program_clip) — on-air clip name
- $(ndilight:preview_clip) — cued clip name
- $(ndilight:program_index) — on-air clip number
- $(ndilight:preview_index) — cued clip number
- $(ndilight:timecode) — timecode HH:MM:SS:FF
- $(ndilight:remaining) — remaining HH:MM:SS:FF
- $(ndilight:total) — total clip duration
- $(ndilight:total_clips) — clip count
- $(ndilight:master_volume) — master volume %
- $(ndilight:clip_volume) — clip volume %
- $(ndilight:speed) — playback speed
- $(ndilight:loop_mode) — loop mode (none/single/ playlist)
- $(ndilight:artnet_status) — Active / Inactive
- $(ndilight:ndi_status) — Active / Inactive
- $(ndilight:output_status) — Open / Closed
- $(ndilight:clip_1_name) through $(ndilight:clip_20_name) — names of the first 20 playlist clips

TECHNICAL ARCHITECTURE

NDIlight embeds a WebSocket server that starts automatically at app launch on TCP port 19877. This server:

- Accepts unlimited simultaneous clients

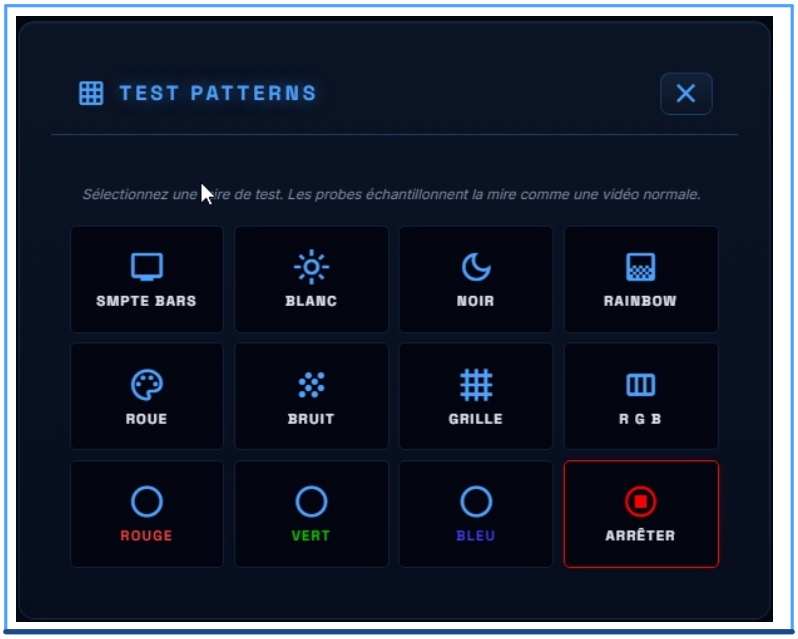
- Pushes the full application state 10 times per second (10 Hz) to every connected client
- Receives JSON commands and executes them immediately
- Auto-reconnects on the Companion side if NDIlight is restarted

The protocol is plain JSON over WebSocket. No authentication is required (trusted broadcast network assumption, identical to Art-Net and OSC).

No configuration is needed on the NDIlight side: the server starts on its own. Only Companion needs to know NDIlight's IP and port.

CHAPTER 25 — TEST PATTERNS (BUILT-IN TEST SOURCES)

NDIlight includes a built-in test pattern generator that produces calibration images without needing any video file.



ACCESS

Click the TEST button in the top bar (next to FILE / STREAM / NDI). A popup opens with a grid of 12 patterns.

THE 12 AVAILABLE PATTERNS

- SMPTE BARS: standard broadcast color bars
- WHITE: solid white screen
- BLACK: solid black screen
- RAINBOW: horizontal rainbow gradient
- WHEEL: radial HSV color wheel
- NOISE: animated random static (refreshed at 10 Hz)
- GRID: 16:9 alignment grid with center cross and circle
- R G B: three vertical stripes (red, green, blue)
- RED / GREEN / BLUE: solid color screens
- STOP: stops the pattern and returns to black

USAGE WITH PROBES

Patterns are injected into the video pipeline exactly like a file or stream source. Probes sample the pattern normally and send values via Art-Net / sACN. This lets you verify DMX mapping without a video clip.

CHAPTER 26 — WEB REMOTE (REMOTE CONTROL)

NDIlight includes a built-in web server for controlling the application from any browser on the local network.

ACCESS

Open a browser and go to: http://MACHINE_IP:8080

The NDIlight machine and the browser device must be on the same network.

INTERFACE

The web interface is responsive (mobile + desktop):

- Header: NDILIGHT logo + connection indicator
- Live program timecode (HH:MM:SS:FF)
- Current clip name
- Transport: PREV, PLAY, PAUSE, STOP, GO, NEXT, BLACK
- Playlist: all clips with number and name. Program clip in orange, cued clip in blue. Click a clip to GO directly.
- Volume: master volume slider
- Auto-reconnection if NDIlight restarts

CHAPTER 27 — BEAT DETECTION / AUDIO-REACTIVE

NDIlight analyzes program audio in real time to detect beats, estimate BPM, and measure energy per frequency band. This data can modulate probe brightness so fixtures pulse with the music.

BPM DISPLAY

A BPM indicator appears in the transport bar between the VU meters and GO/STOP buttons. It shows detected BPM and flashes amber on each beat.

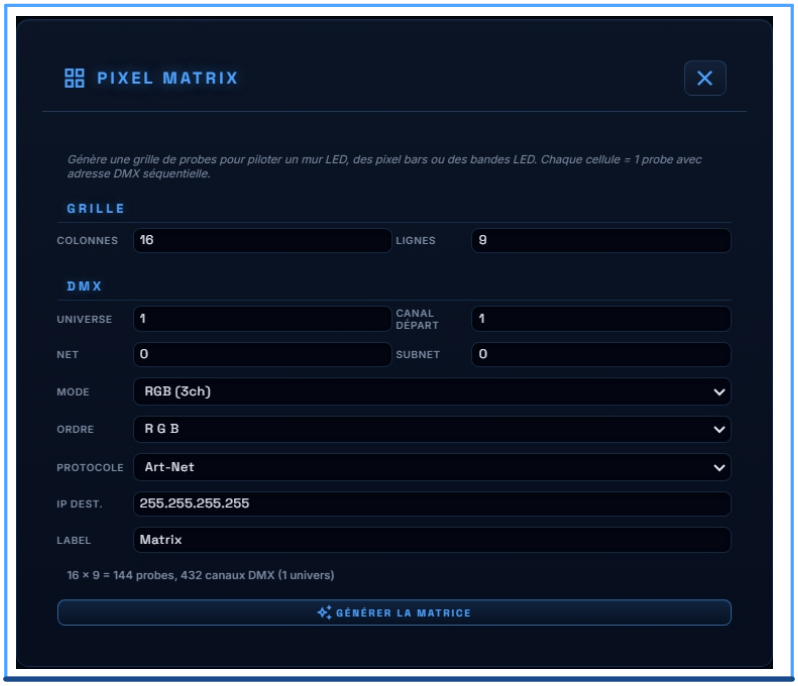
PER-PROBE CONFIGURATION

In the PROBES panel, select a probe and find AUDIO REACTIVE:

- Off: no audio modulation (default)
- Bass (20-200 Hz): probe pulses with kick drum
- Mid (200-2000 Hz): probe pulses with vocals/guitar
- Treble (2k-20k Hz): probe pulses with hi-hats/cymbals
- Beat (onset): probe flashes on each detected beat

CHAPTER 28 — PIXEL MAPPING / MATRIX

Pixel mapping creates a rectangular grid of probes mapped to the video frame. Each grid cell is an auto-generated probe with sequential DMX addresses. Use this to drive LED walls, pixel bars, or LED strips.



ACCESS

In the PROBES tab, click MATRIX (next to ADD PROBE).

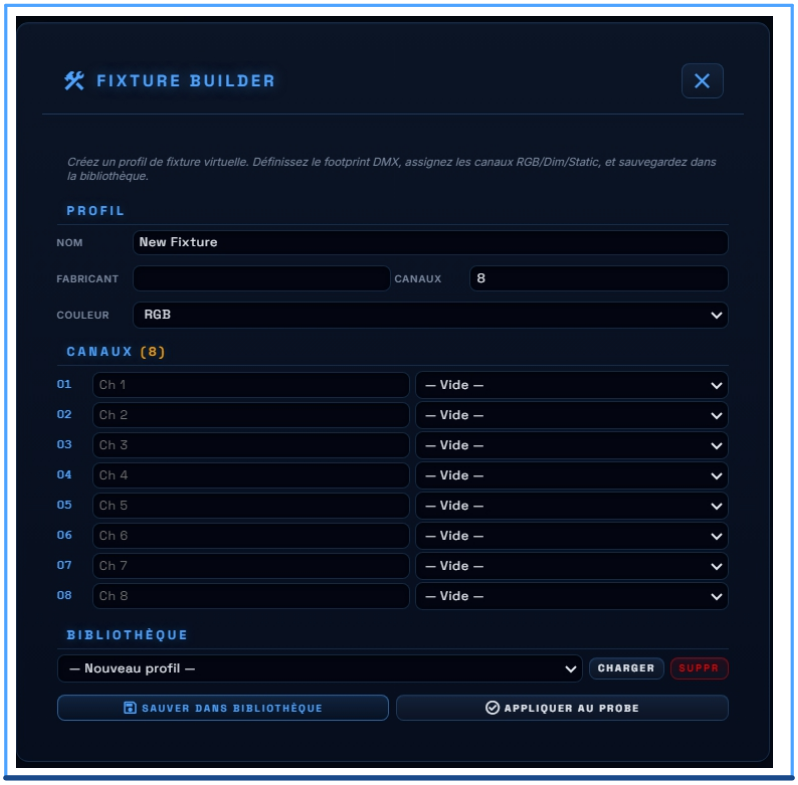
CONFIGURATION

- Columns / Rows: grid dimensions (1-128 each)
- Universe / Start channel: DMX addressing (auto-wraps)
- Net / Subnet: Art-Net parameters
- Mode: RGB (3ch), RGBW (4ch), RGB+Dim (4ch), RGB 16bit (6ch)
- Order / Protocol / IP / Label

Click GENERATE to create all probes at once.

CHAPTER 29 — FIXTURE BUILDER

The Fixture Builder creates custom virtual DMX fixture profiles. Define the full DMX footprint including static channels (pan, tilt, shutter) and dynamic channels (RGB, dimmer).



ACCESS

In the PROBES tab, click FIXTURE (next to MATRIX).

PROFILE

- Name / Manufacturer / Total channels / Color space (RGB/CMY)

CHANNEL TYPES

For each channel, assign a type:

- Unused: sends 0
- Red / Green / Blue: dynamic from probe color
- Red Fine / Green Fine / Blue Fine: 16-bit LSB
- White / Amber: dynamic calculated values
- Dimmer / Dimmer Fine: dynamic dimmer
- Static: fixed value (0-255) for homing channels

LIBRARY

Profiles are saved in a persistent local library. 4 built-in presets: Generic RGB, RGBW, Dim+RGB, Mac Aura (simplified).

Click APPLY TO PROBE to link the profile. The full DMX footprint is sent every frame: dynamic RGB/Dim from the probe, static home values for pan/tilt/shutter, zeros for unused.

CHAPTER 30 — MEDIA EXPORT

[Illustration: screenshot.287.jpg — custom export panel]

NDIlight can export one or more playlist clips with all modifications baked in (rotation, crop, mirror, color grading, audio EQ, compressor, reverb, loudness normalization...).

OPENING THE EXPORTER

Click the EXPORT button in the top bar (movie_edit icon).

CLIP SELECTION

The dropdown lets you choose:

- Current clip: the clip currently on Program (on air)
- Selected clip: the clip selected/focused in the playlist
- Entire playlist: exports all clips one by one

QUALITY PRESETS

Four options:

- Fast: H.264 CRF 23, AAC 192k (~5 MB/min at 1080p)
- Quality: H.264 CRF 18, AAC 320k (~15 MB/min at 1080p)
- Lossless: H.264 CRF 0, FLAC (pixel-perfect, large files)
- Custom: opens a full advanced settings panel

The active preset is highlighted in blue.

CUSTOM MODE

When you choose "Custom", a detailed panel appears:

Video codec: H.264, H.265/HEVC, VP9, AV1, ProRes, DNxHD, or Copy CRF: quality value (0 = lossless, 23 = standard, 51 = minimum) Speed preset: ultrafast to veryslow Bitrate mode: CRF auto, Fixed bitrate (CBR), Variable bitrate (VBR) Pixel format: YUV 4:2:0, 4:2:2, 4:4:4, RGB 24-bit

Resolution: Original, 4K UHD, Full HD, 720p, 480p, or custom FPS: Original, 23.976, 24, 25, 29.97, 30, 50, 59.94, 60

Audio codec: AAC, MP3, Opus, FLAC, WAV 16-bit, WAV 24-bit, Copy, No audio Audio bitrate: 96k to 320k Sample rate: Original, 44.1 kHz, 48 kHz, 96 kHz Channels: Original, Mono, Stereo

Container: MP4, MKV, MOV, WebM, AVI, MPEG-TS

FILE NAMING

Exported files are named automatically: OriginalName_Codec_Method.extension

Examples: MyVideo_H264_Fast.mp4 Concert_H265_CRF18.mp4 Show_ProRes_8000kbps.mov

PROGRESS

During export, a progress bar shows the current clip name, percentage, and clip count. Errors are reported at the end.

CHAPTER 31 — MULTI-PLAYLIST TABS

[Illustration: screenshot.297.jpg — playlist tabs bar]

NDIlight supports multiple playlists in parallel via tabs, like in a web browser.

CREATE A NEW TAB

Click the + button to the right of the tabs to create a new empty playlist. You can also duplicate the active playlist via the right-click menu.

SWITCH BETWEEN TABS

Click on a tab to switch to it. IMPORTANT: switching tabs does NOT stop the clip playing in program. You can prepare another playlist while the current show continues. The tab containing the clip currently ON AIR is marked with an animated red dot (●).

RENAME

Double-click on the tab name to rename it. ENTER confirms, ESC cancels. Right-click menu also offers "Rename".

REORDER

Drag and drop tabs to reorder them.

RIGHT-CLICK MENU

- Rename
- Duplicate
- Save... (export this tab individually)
- Load... (load file into a new tab)
- Delete (with confirmation)

INDIVIDUAL PLAYLIST SAVE

The ■ button in the tabs bar saves the active tab as a .ndilight-playlist file (JSON). Preserves EVERYTHING: clips with all parameters, audio modifications, image adjustments, geometry, transitions, IN/OUT points, loop flags, OSC triggers, external audio tracks.

INDIVIDUAL LOAD

The ■ button (or "Load..." in the right-click menu) opens a .ndilight-playlist file. Always loaded into a NEW tab — never overwrites the current tab.

GLOBAL SAVE (ALL PLAYLISTS)

The SAVE button in the topbar saves ALL tabs in one .ndl file, along with all playlists, active tab index, probes, patch, audio presets, and global settings. This is the "complete show" save.

CHAPTER 32 — COPY / CUT / PASTE

You can move or copy clips between playlists.

SELECTION

- Single click: selects one clip and cues it in preview

- Ctrl+click: toggle this clip in/out of multi-selection
- Shift+click: range select (from last selected to clicked clip)

KEYBOARD SHORTCUTS

- Ctrl+C: copy selection
- Ctrl+X: cut selection
- Ctrl+V: paste at end of active playlist

RIGHT-CLICK MENU

Right-clicking a clip shows a context menu with Copy, Cut, Paste, Delete (each with selection counter when multi-selected).

CROSS-PLAYLIST

Copy clips in playlist A, switch to playlist B, then paste. IDs are auto-regenerated to avoid collisions. Cut consumes the clipboard on first paste (Windows Explorer behavior).

CHAPTER 33 — UNDO AND HISTORY

[Illustration: screenshot.298.jpg — Action history modal]

NDIlight records every significant action with a timestamp. You can undo the last action or any specific action from history.

UNDO LAST ACTION

- UNDO button in the topbar
- Ctrl+Z keyboard shortcut

OPEN HISTORY

Click the HISTORY button in the topbar. A table opens with all recorded actions (last 100).

TABLE COLUMNS

- Time: HH:MM:SS timestamp
- Category: colored label (PLAYLIST, CLIP, AUDIO, etc.)
- Action: short description
- Detail: before/after values
- Undo: ■ button to undo this specific action

CATEGORY FILTERS

11 filterable categories above the table: ALL, PLAYLIST, CLIP, GEOMETRY, AUDIO, IMAGE, PROBES, PATCH, TRANSPORT, SETTINGS,

SOURCE, CONFIG.

CLEAR HISTORY

The CLEAR (red) button at the top right of the table erases the full history (with confirmation).

LIMITS

The history is in memory only — lost when the application closes. The stack is limited to 100 entries (FIFO). Playback actions (play/pause/seek) are not recorded as they are not relevant for undo.

END OF MANUAL