

PHOTISM MANUAL

The full reference for the device. QUICKSTART.txt gets you playing in sixty seconds; this file explains every scene, every control, and every key, so you know what the whole instrument does.

Photism is an audio-reactive visualizer that lives on a track in Ableton Live. The device hears the track's audio, a small Node server runs inside Max and streams the analysis to your browser, and a three.js renderer draws the picture. Everything runs on 127.0.0.1. Nothing leaves your machine.

Before anything else: Photism makes bright, fast, flashing visuals, and flashing light can trigger a seizure in people with photosensitive epilepsy. Section 21 explains what to tell an audience and how to turn the intensity down. Read it before you play to a room.

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1. THE TWO WINDOWS

Photism serves two pages from the same address, and they stay in sync.

- | | |
|------------------------|--|
| localhost:7071 | the control page. Panel, scene names in the corner, keyboard shortcuts, image drops. This is where you tune. |
| localhost:7071/?output | the output page. Visuals only. No menu, no overlays, no cursor after two seconds. This is the one you send to a projector or a capture card. |

Open the control page on your laptop, put the output page on the second screen, and drive both from one place. The device's OPEN VISUALS button always points at the right port. If you run more than one instance, each device gets its own port, counting up from 7071.

2. KEYBOARD REFERENCE

Everything plays from the keyboard on the control page.

G	Open or close the tuning panel. Start here. The g · tune button in the corner strip does the same.
Tab	Open the scene grid: every scene on one card. Click a name to jump. Tab again or Esc closes it. The tab · scenes button in the corner strip opens it too, and the card carries a g · tune panel button.
1 to 9, 0	Jump straight to the first ten scenes. 0 is the tenth. Sand, idol, oracle, anemone, forge, ingot, spacetime, pelt, wisp, and grove sit past 0, a Tab or arrow away.
Left / Right	Step to the previous or next scene. The small arrows beside the scene name in the corner strip do the same.
P	Open the palette card: every palette with its five colors, grouped under headers you can fold. Click a palette to switch, click a header to fold or unfold its group, P again or Esc closes. The p · button in the corner strip does the same.
Space	Let go of the mouse. Scenes that follow the cursor (anemone, wisp, grove) freeze their chase and ease home, and pelt stops reading the brush; press Space again to take the mouse back. Hovering the tuning panel or any button never steers a scene, with or without Space.
X	Shuffle: a fresh scene and palette in one press. The scene always changes, the palette draws from the full set, and your macro settings stay put. The x · shuffle button in the corner strip and on the scene grid do the same.
B	Swap back to the look before the last change. Press it again to bounce between the two: an A/B for looks. Follows the preset morph time, so with a morph set the swap glides.
O	Open the projector output window directly, no address to type. Drag it to the projector and press F there.
A	Cycle the frame: full, 16:9, 9:16, 1:1.
F	Fullscreen.
R	Start or stop recording a clip.
S	Save a full-resolution still (PNG).
D	Toggle the debug overlay (frame rate, audio bands, exposure). Handy when you want to see what the engine hears.

The output page ignores G, Tab, P, X, B, O, and D on purpose, so a projector never shows a panel, a card, or an overlay.

3. THE TUNING PANEL

Press G. The panel holds everything that is not on the keyboard, in the order you tend to reach for it:

- The five big edits (react, chaos, trails, heat, bright).
- Palette and look controls, closing with randomize look. It rolls the macros and palette on every click and keeps brightness up; symmetry, tiles, and twist reframe about one click in three. Your photo and the scene stay put.
- The active scene's own sliders, closing with randomize scene. It rolls the scene's mode and settings and leaves the rest of the panel alone, so the picture you dropped in rides straight through.

- Reset. After either randomize, an undo randomize button appears under it and brings the look you had straight back.
- The preset browser.
- The image drop.

Click the panel's title row to fold the tune rows away and save room; the scene section, action buttons, and folders stay put. Click it again to bring the rows back.

One rule of tuning: move one slider at a time and watch. Every control does something visible. Sliders sweep hard, roughly a quarter to four times the center value, so the ends reshape the whole look. Double-click any slider to reset it to its default. If a control does nothing visible, that is a bug, tell us.

4. THE FIVE BIG EDITS

These are the macros, the controls you automate most. You reach them, and every other control, through the device's sixteen macro knobs (section 17).

REACT	How hard the music moves the picture. This is the master sensitivity over every audio-to-visual mapping. Low and the scene drifts on its own; high and every hit lands hard. REACT does not touch the signal scene's meters, which measure rather than react.
CHAOS	Turbulence, feedback tunnels, and how far the image tears and folds. Center is the tuned default for each scene; up pushes toward the wild end.
TRAILS	Feedback persistence. Low wipes clean each frame; high smears motion into long comet tails and tunnels.
HEAT	Bloom and flash. The glow that kicks push through the structure. Up for a hotter, brighter response to energy.
BRIGHT	Exposure. The engine already auto-exposes to keep the picture from clipping or going muddy; BRIGHT is your offset on top of that, roughly 0.6x to 2.4x.

5. INPUT GAIN

INPUT GAIN	Source calibration. If your track runs hot or quiet, set this so the visuals respond in a good range. Center is unity. Watch the debug overlay (D) if you want numbers while you set it.
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6. SHAPE THE FRAME: SYMMETRY, TILES, TWIST, SLICE

Four global transforms that run over whatever the scene draws. They are independent of each other, so you can stack them.

SYMMETRY	Kaleidoscope. 0 is off, 1 is a bilateral mirror, 2 is quad, and higher values open radial kaleidoscope segments, up to twelve.
TILES	A wallpaper grid that repeats the frame. 0 is off.

- TWIST A radial vortex that swirls the frame around its center. Center is off; go either side for the two directions.
- SLICE Shear slabs that shift horizontal bands against each other. 0 is off.

SYMMETRY, TWIST and a few others persist when you change scenes, so an envelope you drew keeps playing over the new scene. Touch the slider in the panel and the scene's own curated default takes back over.

7. THE LENS

An optical material laid over the whole picture, like glass held in front of the lens.

- LENS How strong the optical material is. 0 is off, so the picture is untouched.
- LENS STYLE Which material, 1 through 7:
1 glass ribs, 2 glass fan, 3 anamorphic, 4 melt,
5 glitch, 6 pixels, 7 fly eye.

Set LENS above zero, then flip LENS STYLE to audition the seven looks. Anamorphic is cinema glass: the frame breathes a widescreen squeeze, kicks rack it, and bright spots throw streak flares. Melt liquefies the picture into slow wax drips, and kicks send heat plumes up through it. Fly eye is a honeycomb of little glass beads; LENS sweeps the bead size, kicks turn the whole lattice a notch.

8. DRIFT AND EDGES: SPIN, HUE DRIFT, VIGNETTE

- SPIN Slow rotation drift of the whole frame. Center is off; either side spins one way or the other.
- HUE DRIFT Slowly walks the palette over time. 0 holds the palette steady.
- VIGNETTE Darkens the edges to focus the eye on the center. 0 is a flat frame.

9. SCENE, PALETTE, MODE, PRESET

These four are dropdowns on the device, not dials. Click one and pick by name from the list, which gets you through a long set fast. Each is still an automatable parameter, so a lane records and replays your choice.

- SCENE Which visual engine is running, by name. Same as the number keys, or clicking a name in the corner.
- PALETTE Which of the twenty-four color sets is active. The P key opens the same list as a card in the visuals window.
- MODE The active scene's variant. Four scenes use it: limitless has twenty-one modes, signal has five, anemone has four patterns, and spacetime has two directions. Other scenes show no modes, so MODE does nothing for them.
- PRESET Swap a whole saved look on a song section. Pin a preset to

a slot with the # chip in the panel's preset browser, then the PRESET dropdown lists your pinned presets by name (up to 64 slots). The slot stays put when you save or delete other presets. The "none" item is manual control, so loading the set never stomps a live session.

10. THE TWENTY SCENES

Each scene is its own engine with its own reaction to the music. Kicks cause structural change in every one of them, not just a flash. The scene number is the key you press; the last seven sit past 0, on the arrows, the scene grid, and the SCENE dropdown.

1 INK

A full-screen fluid shader of folding, domain-warped smoke. Bass deepens the warp; kicks push bloom light through the folds.

2 RELIC

A raymarched 3D Mandelbulb. Kicks morph the bulb's power in an eased random walk, so every hit regrows the whole structure. It is lit and moves slowly. The tilt slider cranes the camera above or below the structure; sweep it live for a slow orbital dive.

3 SIGNAL

The meters family, technical analysis views. This scene measures the audio as it is and does not scale with REACT. Five modes on the MODE control:

analyzer	a spectrum analyzer with peak-hold
waterfall	a scrolling spectrogram terrain, kicks shear faults into the history as it scrolls
scope	a triggered oscilloscope of the waveform
vector	a goniometer, the stereo field as a live cloud
lissajous	an XY pen, left channel against right. Identical channels draw the diagonal, a 90 degree phase draws a circle, and arpeggios trace their figures live. Turn up shape and the pen extrudes through depth, each pass freezing into a slowly turning wireframe. Speed is the afterglow when flat and the spin when extruded. Kicks tear a gap into the depth.

The shape and complexity sliders morph each meter's layout.

4 LIMITLESS

The image-trip engine, and the one that responds to dropped photos, dropped videos, and the camera. Twenty-one modes on the MODE control, the ones Alec reaches for first at the top:

none	no physics at all: the plain picture or feed at full brightness. The clean canvas for the lens, symmetry, tiles, and the rest of the tune panel
smear	a domain-warp drag
droste	a log-polar spiral, image inside itself
infinite	the infinity mirror: your picture recedes into itself layer by layer, a neon frame at every depth, and each kick sends a pulse of light diving down the tunnel. Speed is the dive, complexity is the layer spacing, and shape morphs the frame from a rectangle to a circle
corridor	a one-point perspective hallway papered with your picture, corner seams glowing. Kicks send a pulse of light away down the hall

cube	flying through closed rooms papered with your picture: the far wall approaches, lights up, and you pass through it into the next room
planet	your picture wrapped around a slowly turning sphere with a palette halo. Kicks relight it from a new angle
windows	a wall of screens, each holding your picture at its own slight delay. Kicks snap every screen to now
melt	a flowing advection simulation
shatter	a voronoi fracture that kicks explode
prism	per-channel warp tears
terrain	the image's brightness becomes a landscape you fly over
breathe	the picture stays readable while it moves: its textures crawl along their own contours, edges shimmy, color fringes with the energy, and once in a while a strong hit slides the frame toward recursion and lets it ease back
mosh	motion in the source drags its own pixels into smears, and every kick snaps a clean frame back. Made for video and the camera; a still photo only drifts faintly
sort	bright runs stretch into sorted streaks down their columns, the pixel-sorting glitch. Kicks re-cut the columns
coral	a growth pattern spreads through the picture, feeding on its bright zones. Kicks drop new colonies, and the palette lights the growth
scanline	a slit-scan time shear: rows refresh at their own lag and slide sideways as they age, so motion shreds into scans. Kicks snap every row back to now
thresh	screen-print posterize: the picture's colors slam into flat bands with inked contours between them. Kicks knock the level count down for a beat
solar	solarize: everything past a slowly wandering threshold flips negative. Kicks widen the flip
halftone	a rotated dot screen, every dot in the picture's own color. Kicks click the screen angle
vhs	tape damage: tracking wobble, color bleeding sideways, speckle, and the head-switch mess along the bottom. Kicks slam the tracking

DRY/WET sets how much effect sits on your picture. All the way up is the full mode. Lower it and the effect eases back out toward your untouched picture, so you can sit anywhere from the plain image to the full mode. On the warp modes the warp itself grows in from nothing; the others ease in over the picture. It hides in none, which is already the plain picture, and in terrain, which has no flat image to fade to.

Your picture keeps its own colors in every mode. The palette colors the world around it: the kick accents, the terrain sky. Dropping a photo also pulls a five-color palette from it, so the rest of the engine matches the image.

Drop a video and it loops as the source, silent, with the same modes on top. The camera button in the scene's panel folder puts your live feed there instead, mirrored the way you expect to see yourself, and it starts in breathe so the feed reads clean before you reach for the wilder modes.

5 CITADEL

A raymarched Mandelbox lattice, relic's sibling. Kicks morph the fold scale, rebuilding the lattice into a new piece of architecture on every hit. The tilt slider cranes the camera from

under the lattice to straight over it.

6 MANDALA

A kali fractal, iterated folds forming a live mandala. Kick and sub breathe the zoom; energy drives the glow.

7 SYNAPSE

A constellation graph that builds itself from the music. Kicks drop big cores near the center, mids place mid nodes, highs scatter distant motes. Nodes link to their neighbors, drift, and age out.

8 FLUID

A stable-fluids simulation on the GPU, with a quarter million particles riding the flow. The audio injects dye and stirs vorticity, so bass pumps the swirl and the fluid keeps folding through quiet passages. DENSITY crossfades the ink against the particle cloud, FILL sets the grain size, and COMPLEXITY pulls the cloud into shapes that jump to a new form on accented kicks.

9 MORPHOGEN

A morphogen is the chemical Alan Turing proposed as the seed of natural pattern, and this scene runs that model. Two chemicals feed and kill each other on a grid, and the display cuts the result into a crisp two-tone mark that grows live: coral limbs, fat lobes, labyrinth veins. A mirror fold turns the growth into a symmetric inkblot. The music runs the chemistry: loud sections speed it up, quiet passages slow it to a crawl, bass swells the lobes, and a strong accented kick shifts the feed and kill rates so the whole figure re-textures itself. Hold the mouse down on the canvas to paint new growth under the cursor, mirrored live by the fold. The fold slider picks the symmetry: free growth low, a bilateral mirror through the middle, both axes high. Pattern slides the chemistry from cell dots through worms to dense coral. Spread sets how far the figure may grow before its edges die back. Scale sets the feature size, fine veins to fat lobes, and a moved slider lets the figure reflow itself to the new size.

0 GATE

A raymarched corridor of colossal arches. The camera walks forward forever, arch after arch sliding past toward a glow that never gets closer. The slabs stay near black and machined: inset plates, vent slots, channel seams, and small lit windows that answer the highs, with the light in the haze and on the stepped arch rims. Accented kicks re-tune the passage: every arch steps to a new opening and the deep lips swap sides, eased so the architecture moves without a cut. Every kick sends a pulse of light racing away down the hall. Shape sweeps the hall itself: left of center leans the A-frame steeper, right of center morphs the whole passage through square and hexagonal into a circular tube, arches and all. Complexity runs the machining from smooth monolith to dense circuitry, arches sets how tightly the frames stack, fill closes the openings down around you, and tilt cranes the view toward the apex.

11 SAND

A Chladni plate: sand gathering on the nodal lines of a vibrating surface. The pattern comes from the actual spectrum. The plate modes closest to the loudest frequencies in your music carry the figure, so a chord change redraws it, and the redraw waits for an

accent. Sub widens the sand lines, highs make the grains twinkle, kicks toss the sand. The shape slider morphs the plate from square to circular. The figure slider has twelve detents: each click steps the pattern to the next shape in the plate's mode family, and between clicks the figure holds. The grains slider pours more sand.

12 IDOL

A raymarched Mandelbox carved into a radially symmetric mandala, faced head-on. The carving morphs the whole time, slowly. Accented kicks re-seat it: the fold scale walks to a new relief and the carving clicks a notch, so every accent re-blooms the figure without snapping. Sub leans the camera in, highs light the carved edges, energy carries the luminosity. The petals slider sets the symmetry order, four arms to twelve. The relief slider sweeps the carving from shallow lacework to deep cavities. Fill moves from the whole idol to macro detail.

13 ORACLE

A raymarched machine temple. The body of the structure stays near black and the palette works on the edges: rim light traces the architecture, glowing beads run along the tube work, and a bilateral mirror folds the whole tangle into a mandala. Accented kicks morph the fold and the chamber rebuilds around you, spaced out so the rebuilds stay apart. The shape slider sets the chamber proportions, fold spirals the tube work into rosettes, fill moves you from outside the temple to deep inside it, and tilt cranes the camera through the tangle. The raymarched scenes carry the tilt slider, and you can sweep it live.

14 ANEMONE

A bloom of beaded light. Every element is a chain of small glowing rings, and every chain pours out of one point. The whole field lies on a tilted plane, so one side of the frame hangs deeper than the other. Four patterns on the MODE control, and switching morphs one shape into the next:

- bloom chains pour radially out of the source
- vortex winding rings orbit the source, outer rings near, inner rings sinking away down a funnel
- braid a helical rope of chains twisting toward you
- veil a layered curtain of chains flowing sideways past the source, deep sheets behind, shallow in front

The tilt slider owns the lean, and because it rides the SHAPE lane on the device, you can automate the plane swinging across a whole song. The mouse pushes the lean on top of the slider and the source point drifts to live under your cursor; press Space to let go of the mouse, and note the panel never steers it. Strong accented kicks tip the plane and it settles back to your setting. Hold the mouse button and the stream pulls back in; release and it pours out again. Leave the mouse alone for a few seconds and everything eases home. Strong accented kicks click the flower into a new petal count, and every kick sends a pulse of light racing out along the chains. Bass swells the petals, highs sparkle stray beads. Color starts from the palette and fans around it along each chain, so a colorful palette blooms into full spectrum and pearl stays silver. Shape deepens the petals and curls the chains, density thins the strands, fill pushes the whole bloom closer.

15 FORGE

A nanite flock that builds constructs. Sixty-five thousand machined chrome shards fly as one flock, every one a tiny metal splinter glinting as it banks, wandering the frame on their own patrol. The construct is yours to choose: the form slider clicks through eighteen shapes, detent by detent, cube and octahedron and tetrahedron frames, gimbal rings, an exploded stack, a schematic grid, a trefoil knot, a double helix, a lissajous weave, a banded sphere, a torus, a spiral galaxy, a rounded monolith, a turbine, an atom, a mobius band, an urchin, a vortex funnel, a nested shield lattice. Moving the slider re-grips the flock into the new shape on the spot, and strong accented kicks hammer it into the chosen form hard. The construct holds centered, tumbles slowly, stays lit, then shatters back into flight. Iridescent color arrives on assembly: thin-film shimmer blooms across the construct and drains away, and the resting flock stays chrome off the palette. Ordinary kicks breathe the cloud outward. Form picks the construct, complexity is turn wildness and spread, density thins the shards, fill sizes them, tilt cranes the camera above and below the flock.

16 INGOT

A polished chrome sculpture floating in a dark studio. A crescent of stacked liquid-metal blades, cut through with lens-shaped holes, and the metal never stops flowing. All the color is reflection. The palette tints the studio lights, a soft key, a horizon strip, a floor bounce, and the metal stays silver in between, so pearl reads factory chrome and a warm palette pours bronze. Strong accented kicks re-crystallize the grain: the blades re-aim inside the same silhouette and the key light swings to a new angle. Bass melts the metal so the blades pour, mids push the flow, highs tighten the glints. Shape sweeps a level wreath into a breaking crest, metal fills the form from razor foil to solid billet, complexity refines the blades, fill moves from the whole sculpture to macro detail, tilt cranes the camera.

17 SPACETIME

Streams of neon light rays rushing one way through the dark, hot cores over black, all of them converging on a vanishing point somewhere past the edge of the frame. The whole field travels in a single direction. Two modes on the MODE control:

forward the stream pours toward you

reverse the stream pours away

Switching modes never cuts: the rays decelerate, hang for a beat, and pour back the other way. Kicks fire thick hero comets through the stream, and a strong accented kick after a rest re-rolls the entire field, so the stream restructures on the big hits. Every kick also races a wave of light along the stream. Bass widens the ray cores, highs scintillate the ray heads, and the whole sky follows the loudness of the song.

The direction slider aims the stream anywhere around the screen. Detail adds far parallax layers and breaks some rays into bead trains, dotted trails behind the fast rays. Rays sets the population, and the top half of the slider pours in two more strata of fine far rays, a meteor storm at full. Width thickens the beams.

18 PELT

A field of dense fur under studio light, and you can brush it. Drag the mouse across the canvas and the nap combs along your

stroke, then heals back to its groom over about fifteen seconds. Hold the button and the fur parts around the cursor. The music combs it too: mids gust waves through the nap, bass swells the mounds underneath, highs spark in the tips, every kick sends a ripple front across the field, and a strong accented kick re-parts the whole groom, new whorls and a new lay the pelt eases into over a couple of seconds. Groom sets the crimp of the strands, strands sets how many, length grows the coat, tilt cranes the camera from grazing to overhead.

19 WISP

A world of fine dust with one bright wanderer in it. A million particles: a faint field of grains fills the whole frame from the first second, and the wanderer, itself a loose knot of glowing grains around a hot heart, sprays fresh matter wherever it flies. What it sheds lives for tens of seconds and churns slowly the whole time, so the flight history piles into billowing clouds and the trails lie all over the frame. Fast grains draw as tiny streaks along their motion, long guard hairs curl off the flow in locks and cowlicks, and every strand is lit by the wanderer's lamp, so the near side of a cloud glows and the far side falls dark like real fur. Every kick pumps light through the nearby dust and erupts a puff of fresh spray at the orb. A strong accented kick after a rest sends the orb darting on a fresh heading, flips the vortex it drags through the dust, and throws an arcing chain of glowing beads that rides the same currents. Bass swells the orb, highs sparkle the grains, and the whole picture follows the loudness of the song. Move the mouse and the wanderer rides your cursor exactly; flick it and the spray whips. Hold the button and it condenses, tight and bright. Leave it alone and it wanders. Roam sets how far it patrols, detail sharpens the fine turbulence, trail sets how long shed dust lives, and size grows the orb, its spray, and the streaks.

20 GROVE

An endless drift through a fractal forest. Three tree species grown by a branching rule stand on rolling ground, mist hangs between the trunks, light blades come down through the canopy, and the camera walks a winding trail forever. Mossy boulders and low ferns line the way. Every kick sends a front of light racing away down the trail. A strong accented kick bends the route: the woods ahead swing to a new heading and a fresh corridor opens, near trunks holding still while the far forest turns. The mouse steers your gaze; hold the button to ease to a stop and look around, and the wind keeps the forest moving while you stand. Mood is the big ride: misty daylight at the left end, and sliding right puts the sun down until the forest lights itself, glowing canopy, fireflies, and ember specks in the moss. Growth prunes the crown from bare winter skeletons to full summer canopy, density thins or crowds the stand, fill sets limb weight and canopy size.

11. THE PALETTES

Everything in every scene draws from a five-slot palette: background, shadow, mid, accent, glow. Press P (or click the p . button) for the palette card, or pick one from the PALETTE dropdown. On the card the palettes sit in four groups; click a group header to fold it away, and the card remembers your folds.

CLASSIC, the original seven. Mostly one hue walked from dark to light:

1 nocturne	deep violet, teal, warm amber
2 ember	charcoal to red to cream
3 glacial	ice blue and near-white
4 orchid	magenta and warm pink
5 moss	forest green to pale lime
6 sodium	dark to sodium-lamp gold
7 pearl	neutral greyscale to white

BOLD. Two or three hue families per palette, so hits change the color, not just the brightness:

8 cobalt	deep blue with a hot orange accent
9 reef	teal water, coral accent
10 vapor	magenta against cyan
11 oxide	rust and verdigris, like weathered copper
12 aurora	violet sky with green light
13 velvet	royal purple with a gold accent
14 acid	lime with magenta hits
15 neon	night-city red against cyan
16 mirage	indigo dusk, rose and sand

EARTH. Quiet materials with one contrast note:

17 canyon	red rock with dusty sage
18 adobe	terracotta with dusty blue
19 sage	olive, wheat, linen
20 umber	walnut, ochre, bone

RAINBOW. The four lit slots span the wheel, so scenes that sweep the ramp pour out a full spectrum:

21 prism	violet, blue, red, yellow
22 carnival	purple, green, pink, gold
23 candy	bubblegum, sky, lemon
24 tropic	jungle green, hibiscus, mango

HUE DRIFT slowly walks the active palette if you want motion in the color itself.

12. DROPPING IMAGES

Drag any image onto the control window.

- An opaque photo becomes a five-color palette, taken from the image, and feeds the limitless scene as its source. Drop your album art and the visuals match the record.
- A transparent logo becomes an emblem that the engine refracts into the patterns.

The guess can go the wrong way: a transparent logo is also exactly what the limitless scene wants as its image. Every drop shows a small chip for a few seconds saying where the image went, with one button to send it the other way instead. Click it and the drop reroutes: an emblem becomes the image and colors, a photo becomes the emblem and your palette comes back.

That chip only lasts a few seconds. To take a photo back out later, open the tune panel and click CLEAR PHOTO under image · photo. The

scene returns to the source it started with and your palette comes back. The emblem has its own CLEAR EMBLEM under image · emblem.

Switch to scene 4 (limitless) after dropping a photo to see it drive the picture directly.

13. PER-SCENE SLIDERS

Each scene has its own handful of sliders in the panel, under a heading with the scene's name. Depending on the scene these are labeled speed, shape, complexity, density, fill, or contrast. They shape that scene's character.

Map any of these to a macro to automate it. The macro drives whichever scene is playing, and its caption follows the scene, so one knob reads layout on the signal meters and shape elsewhere. Each scene still remembers its own settings, so to flip a whole scene look on a song section, save it as a preset and automate the PRESET slot.

14. PRESETS AND SLOTS

A preset saves the entire look: the macros, the frame transforms, the lens, the palette, and every scene's own sliders.

Save In the preset browser, save the current look with a name.

Recall Click a preset to load it.

Fold Click a folder header to fold or unfold that group; a folded header shows its count. The browser remembers your folds, and loading or saving a preset unfolds its folder so the highlight is always visible. Give presets a folder name when you save and the browser groups them under it.

Pin Click the # chip on a preset to pin it to a numbered slot, 1 to 64. The PRESET dropdown then lists your pinned presets by name, and the slot is what you automate. It never changes when you rename, save, or delete other presets.

Automate PRESET across a song and the whole look flips on the section boundary. The "none" slot means manual control.

Morph The morph ms slider at the top of the preset browser sets how preset changes land. At 0 they cut on the instant the change arrives, tight enough to ride a downbeat. Raise it and every knob glides to the new look over that many milliseconds while scene and palette switches ride their own crossfades. Morph is a playing style, not part of the preset: it stays put on this machine and applies to every recall, including the B swap and undo randomize.

Where presets live, and how to move them

The plugin keeps one library per user account, shared by every instance: the VST, the Audio Unit and the standalone app all read and write the same file, so a preset saved on one track shows up on the next one you open.

The Max for Live device keeps its own library in a file next to the device, so that one travels with the device folder.

photism.app keeps a third, in the browser.

Those three do not sync with each other, and none of them follow you to another machine. The preset library folder in the tune panel is how a library moves, and how you back one up.

Save library to file Writes every preset you have saved, plus your pinned slots and your macro assignments, to one file. This is the backup, and the way onto another machine.

Load library from file Reads that file back and merges it into the library you have open. Presets with the same name are replaced, everything else is kept.

Copy this look as text Puts the current look on the clipboard as text, for sending one look to someone without sending your whole library.

Moving between them, or onto a second machine, is two steps: save the library to a file where your presets already are, then load that file where you want them. Do the same after any big session to keep a backup.

15. RECORDING, STILL, FRAMES

R Start recording. Press R again to stop, and the clip lands in your Downloads folder as an MP4.

S Save a still. A full-resolution PNG lands in your Downloads folder.

A Cycle the frame aspect: full, 16:9, 9:16, 1:1. Set 9:16 for reels and stories, 1:1 for square posts, then record or shoot.

Clips record at each platform's native upload size no matter how small your window is: 1080x1920 for 9:16, 1080 square for 1:1, and up to 1440p for 16:9 and full, which YouTube serves from its sharper high-resolution codec tier. While a take rolls the renderer draws at the recording size, so a plugin window and a fullscreen one land the same file. Two habits keep Instagram uploads crisp: turn on "Upload at highest quality" (Settings, then Data usage and media quality), and move clips to your phone with AirDrop or a cable. Messaging apps recompress video and soften it.

Whole sets record too. A take streams to disk while it runs rather than filling memory, so length is not the limit. The record chip counts minutes and gigabytes so you can see the take growing. Takes land with the track audio already in the file, at any length. The chip counts the sound in at the end of a long take, which takes a while on a set: the audio encodes at roughly ten times real time, so an hour of music is a few minutes of waiting. Leave the window alone until the chip says saved.

Recording keeps your screen awake while it runs. Keep the Photism window visible: browsers pause hidden windows, and a hidden or covered window holds its last frame until the picture is back. If that ever happens mid-take, the record chip says so.

A take keeps the frame size it started with. Reshape the window during

a take and the picture letterboxes into that frame rather than stretching, so set your window and aspect before you press R.

16. PROJECTING LIVE

Put localhost:7071/?output on the projector or capture screen and go fullscreen. Visuals only, no chrome, and the cursor hides itself after two seconds. Tune from the device inside Live, or from a plain localhost:7071 page on your laptop. Both stay in sync with the output window, so what you edit is what the room sees.

17. AUTOMATING FROM THE ARRANGEMENT

The device is sixteen macro knobs plus five selectors, and every one is a real Live parameter you draw like any synth automation.

A macro drives whatever you map it to. To assign one, right-click any slider in the tuning panel and pick a macro from the grid, or use the device macros folder in the panel. A control lives on one macro at a time, so assigning it to a knob pulls it off any other knob. Each knob's caption on the device leads with its number and names what it drives, so it lines up with the number you pick in the grid, and the caption follows the scene (a macro on the signal meters reads "ghost hold" there and "density" elsewhere). The Live lane stays named MACRO 1 through MACRO 16, so the mapping is stored in Photism and the caption tells you what a lane does.

The controls you can map onto a macro:

REACT, CHAOS, TRAILS, HEAT, BRIGHT	the five big edits
INPUT GAIN	source calibration
SYMMETRY, TILES, TWIST, SLICE	frame transforms
LENS	the optical material
SPIN, HUE DRIFT, VIGNETTE	drift and edges
SPEED, SHAPE, COMPLEXITY,	the active scene's own controls
DENSITY, FILL, CONTRAST	

The five selectors sit beside the macros as dropdowns, each automatable. Pick by name from the list; the Live lane still records the choice.

SCENE, PALETTE, MODE, LENS STYLE	which scene, colors, variant, lens material
PRESET	the whole look, by pinned slot

Draw SCENE to change engine on the drop, PALETTE to flip color at the bridge, PRESET to swap the entire look on a section. Automated SYMMETRY, SPIN and VIGNETTE stick across scene changes, so an envelope keeps playing over whatever scene is up. Load a preset and the macro knobs, scene, palette, mode and style all follow it.

MIDI LEARN

A hardware knob can drive any of the same controls directly, without an Ableton macro in between. Right-click a slider in the tuning panel and click midi learn at the bottom of the assign grid, then turn the knob you want. The binding shows as a small CC chip beside the slider's name, next to the M chip if the control also sits on a device macro. One control per CC; learning a control onto a new knob moves it. Right-click the midi row to clear a binding. Bindings are saved on this machine and come back on the next launch. The first learn asks the

browser for MIDI access once. Moves from hardware mirror to every open Photism page and onto the device dials, exactly like turning the on-screen slider.

18. THE SIDECHAIN DEVICE

The folder carries a second device, Photism Sidechain.amxd. Drop it on any track, flip the SIDECHAIN toggle on the main device, and Photism follows that track's clean signal for one job, instead of guessing that job from the whole mix. The main device keeps doing everything else. Audio passes through untouched.

CONTROLS	What the fed track drives. Four choices, and the line under the menu says it in a sentence.
hits	Big hits follow this track. Put it on your kick and every structural hit lands with it, ghost notes soft, accents full. Mute the track and the hits stop.
accents	Small hits follow this track. The second rhythm line: snare, claps, rim.
bass	Low-end swell follows this track. Warp, billow and depth ride its level.
brightness	Overall glow follows this track. The whole picture leans toward whatever you feed it, a lead, a vocal, anything with a shape.
SENS	Input trim for quiet sources. Center is right for most tracks. Double-click resets.

Both are Live parameters. The automation lanes read SIDECHAIN ROLE and SIDECHAIN SENS, so a role change can be drawn into the arrangement like anything else.

Drop as many as you want, one per role. The control page's status line lists what is connected, "sidechain hits+bass". The SIDECHAIN toggle on the main device, under the PRESET dropdown, is the master switch for every feed. It ships off, so Photism listens to its own audio until you flip it on, and you can hear both ways with one click. It is a Live parameter, so the flip automates. With the toggle off or no Sidechain devices in the set, nothing changes at all.

19. NO REGISTRATION

Photism has no license key and no watermark. Buying from photism.app is how you get the download. Once you have the folder, every scene, every control, and recording all work. There is nothing to unlock.

20. IF SOMETHING IS OFF

"waiting for audio"	The track the device sits on is not playing audio, or the device is off. Play the track.
"device disconnected"	Reopen the browser page. The device's OPEN VISUALS button always points at the right address.

Black screen after a moment	The page reloads itself after a GPU hiccup. Give it a second.
Port conflicts	Photism walks up from 7071 automatically, so each device instance gets its own port.
A slider does nothing	That is a bug. Tell us, and name the slider.

21. FLASHING LIGHTS AND PHOTSENSITIVITY

Photism is built to hit hard. Kicks push bloom through the structure, scenes tear and strobe, and a hot preset on a loud track flashes fast. That is the point of the instrument, and it is also a real hazard for some people.

Roughly one in four thousand people has photosensitive epilepsy, where flashing light or high-contrast moving patterns can trigger a seizure. Many of them have never had one and do not know they are susceptible. Flash rates between about 5 and 30 per second are the most provocative, and a large bright screen in a dark room is the worst case. A projector at a show is exactly that.

WHAT TO DO WHEN YOU PLAY TO A ROOM

Say it up front. A line on the door, on the event page, or from the stage covers it: "this set includes flashing lights and strobe effects." Venues often have a house policy, ask them.

Watch the room. If someone looks unwell, stop the visuals first and bring the house lights up.

If someone has a seizure, get medical help immediately. Do not restrain them, do not put anything in their mouth, and clear space around them until help arrives.

TURNING THE INTENSITY DOWN

Every one of these is a live control, so you can soften a look without leaving the scene.

HEAT	Bloom and flash. This is the biggest single lever. Low HEAT removes most of the hard flashing.
REACT	How hard the music drives the picture. Low REACT lets the scene drift instead of snapping on every hit.
BRIGHT	Exposure. Lower it and the whole frame calms down.
TRAILS	Up, not down. Long persistence smears fast changes into motion rather than leaving them as discrete flashes.

The calmest scenes are the slow structural ones: relic, citadel, sand, morphogen. The signal meters and the glitch lens style are the fastest and the most strobing. If you need a set that is safe for a mixed audience by default, build your presets from the slow scenes with HEAT low and TRAILS high, and pin them to slots.

WHAT PHOTISM DOES NOT DO

Photism has no automatic flash limiter and does not measure its output

against the WCAG or Harding flash thresholds. It renders what you tune it to render. Judging what is safe for your audience is your call, and these controls are how you make it.

Photism runs on macOS or Windows with Ableton Live 11 or 12, Suite or Standard with Max for Live. Keep the folder together; the device loads everything relative to itself.

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