ALIGN

LINE IT UP



MANUAL V1.0

APOLLO VIEW

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INTRODUCTION

WHAT IS IT?

Precision time and phase alignment.

Align does four corrective jobs, and does them properly: sub-sample time shift, broadband phase rotation, frequency-specific phase bending with a single allpass, and polarity inversion, per channel, in stereo or true Mid/Side. Around them sit clean high-pass and low-pass filters, an output imaging stage, and a live phase-response curve with a spectrum analyser behind it.

It is the corrective half of a workflow: DeltaScope shows two signals drifting apart in time or phase; Align slides them back together; the scope confirms the fix. Kick and bass, snare top and bottom, DI and amp, multi-mic drums, M/S mastering timing.

Phase, not tone: every stage is designed to leave magnitude untouched, so what changes is alignment, not sound colour.

> **NOTE:** Align is a linear-phase precision tool and therefore **not** zero latency: it reports roughly 3,500 samples (about 73 ms at 48 kHz) to the host, which compensates automatically during playback. See the Latency chapter before using it on a live input path.

FEATURES

- Sub-sample time shift: `Coarse` ±30 ms plus `Fine` ±100 µs, polyphase sinc interpolation, flat to beyond 21 kHz at 48 kHz (scales with sample rate)
- Broadband phase rotation, −180° to +180°, through a linear-phase FIR Hilbert with a matched dry path: magnitude flat across the audible band
- Single tunable allpass: 20 Hz to 20 kHz, Q 0.1 to 10, 1st or 2nd order, click-free order switching
- Per-channel polarity invert
- True Mid/Side: every module works on Mid and Side instead of Left and Right at the flip of a button
- Clean 2-pole high-pass and low-pass per channel
- Output imaging: Mono Maker, Side Mix, Pan, L/R Swap, Mono
- Live phase-response curve with spectrum analyser backdrop and per-channel display colours
- A/B snapshots with copy, full undo/redo, latency-compensated bypass
- Time readouts in milliseconds or samples; distance readouts in metres or feet and inches

SYSTEM REQUIREMENTS

Requirement	Minimum
OS	macOS 13 (Ventura) or later, or Windows 10 or later
Mac	Intel or Apple silicon (native)
PC	Any 64-bit PC that runs Windows 10
Formats	VST3, AU, CLAP, AAX (AU is macOS-only)

QUICK START

1. Install, open your DAW, insert Align on the track that needs to move. A new instance starts with Delay and Broadband powered on and Allpass and Filter powered off, so the Filter does nothing until you power it on.
2. While Align is unlicensed, the activation screen opens with the editor. Enter your email and licence key and click `Activate`, or click `Continue in demo mode` to try everything first (see Demo mode); the screen returns the next time you open the editor.
3. Fix a kick and bass in under a minute: put DeltaScope on the bass with the kick as its reference and watch the phase relationship, then drag Align's `Coarse` delay until the transients land together, and fine-tune with `Rotation` until the low end sums solid. The scope confirms it; your monitors agree.
4. `A` / `B` holds two candidate settings; `Bypass` compares against the untouched signal without losing alignment.

> **TIP:** Alt-click (Option-click on a Mac) or double-click a knob to put it back to its default. Every knob also takes typed values in its readout and responds to the mouse wheel with velocity-sensitive precision.

OVERVIEW



Align with the KEY numbers used below.

KEY

1 Title bar: Align wordmark, hovered-control tooltips, Apollo View logo.
2 Phase-response curve with spectrum backdrop.
3 Delay module: Coarse and Fine per channel.
4 Broadband module: Rotation and polarity Ø.
5 Allpass module: Freq, Order, Q.
6 Filter module: HP/LP band per channel.
7 Per-module power and L/R link buttons.
8 Image column: channel format, Mono Maker, Side Mix, Pan, swap, mono.
9 In and Out columns: gain trims and meters.
10 Time and distance readouts (click to change units).
11 Undo, Redo, A/B snapshots, copy, Bypass.
12 Settings cog.

At 100% the window is 800 x 656 pixels. Drag the bottom-right corner to make it anywhere from 75% to 200% of that; it keeps its shape, and each project remembers the size you left it at. To go back to 100%, or to any of 75, 125, 150 or 200%, pick it under `Size` in Settings › General.

Channel columns are **Left** and **Right** in Stereo, **Mid** and **Side** in M/S; the coloured swatch next to each header sets that channel's display colour everywhere (curve, spectrum, accents).

THE PHASE CURVE

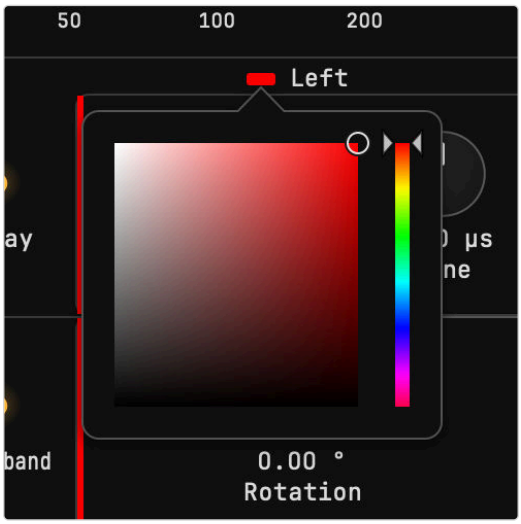
The display at the top is the instrument panel: it draws the **combined** phase response of the Broadband, Allpass and Filter stages for both channels, red for Left and gold for Right by default (they overlap into one trace while sections are linked).

- The frequency axis runs 20 Hz to 20 kHz, logarithmic.
- The phase axis spans −180° to +180° and wraps: a curve leaving the top re-enters at the bottom.
- The right-hand dB axis belongs to the Filter's magnitude overlay, −18 to +6 dB.
- Behind the curves, a live **spectrum analyser** shows the final output (after Image, Out gain and Bypass), so you can see which frequencies your phase moves are acting on. It follows the channel format: L/R or M/S, and it runs only while the plugin window is open.



Unlinked broadband rotation: Left at +90° and Right at −45° draw as two flat phase offsets.

Click a channel's colour swatch (next to the Left/Right header) to recolour that channel's curve, spectrum and accent bar; the choice is saved with the session.



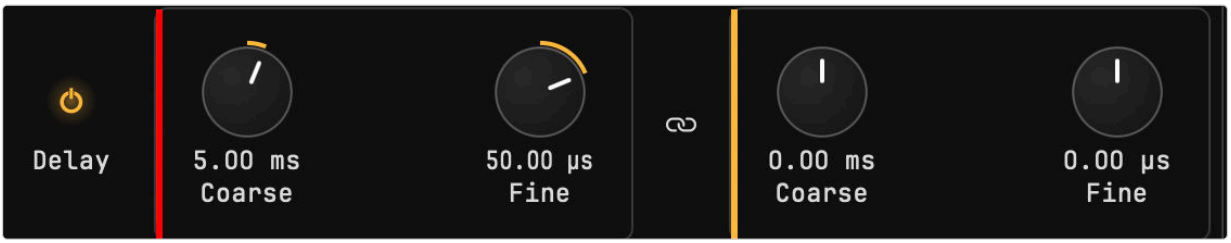
The channel colour picker.

DELAY

The timing stage. Two knobs per channel sum into one shift:

- `Coarse`: ±30 ms in milliseconds.
- `Fine`: ±100 µs in microseconds.

Positive values delay the channel (later); negative values advance it (earlier). The shift is a polyphase sinc fractional delay, accurate to a fraction of a sample and flat to beyond 21 kHz at a 48 kHz session rate: moving a channel 0.3 samples is a real, clean 0.3-sample move, not a nearest-sample compromise.



The Delay module, unlinked: a 5 ms plus 50 µs shift on the left channel only.

READOUTS

The bottom-left blocks always show the resulting shift. Each shows both channels side by side, labelled M and S in M/S:

- **Delay time**: milliseconds, or samples at the session rate. Click the block to switch units.
- **Distance**: the equivalent distance at the speed of sound (343 m/s), in metres or feet and inches. Click to switch. Useful when the misalignment is literally a microphone position. Both unit choices are saved with the session. They only change the display, so your host doesn't offer them for automation.



Time and distance readouts; click either block to change its units.

BROADBAND

The phase stage. `Rotation` turns the whole channel's phase by a constant angle, −180° to +180°, at every frequency across the audible band at once, with magnitude flat. 0° passes through untouched; ±90° is a quadrature rotation; ±180° is a polarity flip.

This is the tool for the "the kick and bass are fighting but no delay fixes it" problem: their relationship is rotational, not temporal, and a broadband rotation dials it out without touching tone.

The `Ø` button inverts the channel's polarity outright (equivalent to ±180°, but as a clean switch), per channel, click-free. It sits at the tail of the processing chain and is independent of the Broadband power button: the button dims while Broadband is off, but an engaged Ø keeps inverting, so power Broadband back on to clear it. With the Phase link on, the left Ø drives both channels. Ø shows on the curve as a 180° shift, and in M/S it inverts the Mid or the Side. Hosts list its two parameters, Phase Invert L and R, in the Image folder.



The Broadband module: Rotation knob and the Ø polarity invert.

> **NOTE:** Phase-aligning material concentrates its energy: peaks can read hotter after alignment even though nothing was boosted. That is the alignment working, not a level bug; trim with the Out gain if a downstream stage needs it.

ALLPASS

The surgical stage. One allpass filter bends phase around a chosen frequency while magnitude stays flat:

- `Freq` : 20 Hz to 20 kHz, the centre of the phase transition.
- `Order` : `1st` reaches −90° at the corner and −180° by Nyquist; `2nd` reaches −180° at the corner and −360° by Nyquist, with `Q` controlling how tight the transition is.
- `Q` : 0.1 to 10, second order only.

Use it when two sources disagree in one region: rotate the low end of a bass against its DI, or bend a snare bottom mic around its crossover point. The order switch is click-free.



1st order (left, Q ignored) against 2nd order (right, Q 2.0) at the same 200 Hz corner.

FILTER

A clean 2-pole (12 dB/oct Butterworth) high-pass and low-pass per channel, on the same two-thumb band slider as DeltaScope: high-pass 20 Hz to 15 kHz, low-pass 30 Hz to 20 kHz, A thumb parked at its end (20 Hz for the high-pass, 20 kHz for the low-pass) leaves that side out of the signal. Drag the bar between the two thumbs to move the whole band, keeping its width.

> **CAUTION:** Unlike DeltaScope's purely visual band filters, Align's Filter module is in the signal path: it changes the audio you hear. It is minimum-phase, and its magnitude and phase contribution draw on the curve (magnitude against the right-hand dB axis).



Filter engaged at 100 Hz - 8 kHz: magnitude overlay and its phase contribution on the curve.

STEREO, M/S AND LINKING

The `Stereo` / `M / S` button at the top of the Image column sets the **channel format**. In M/S the two processing columns become Mid and Side: delay the Side against the Mid, rotate the Mid alone, filter the Side; true Mid/Side alignment for mastering work.

Each module has its own **power** button (the stage bypasses cleanly when off; the `Ø` polarity switch is the one exception, see Broadband) and its own **link** button: linked, the left column drives both channels and the right column dims; unlinked, every channel is independent.

Host automation keeps the parameter names: the L-suffixed parameters drive Mid and the R-suffixed drive Side in M/S, and dialled values carry over unchanged when you flip the format. Hosts that show parameter folders list them under Global, Gain, Image, Delay, Phase, Allpass and Filter.

On a mono track, Align runs single-channel from the left column's controls; the right column and the Image controls stay clickable but have no effect.



M/S format: the columns become Mid and Side.

IMAGE

The output stage, after the alignment chain:

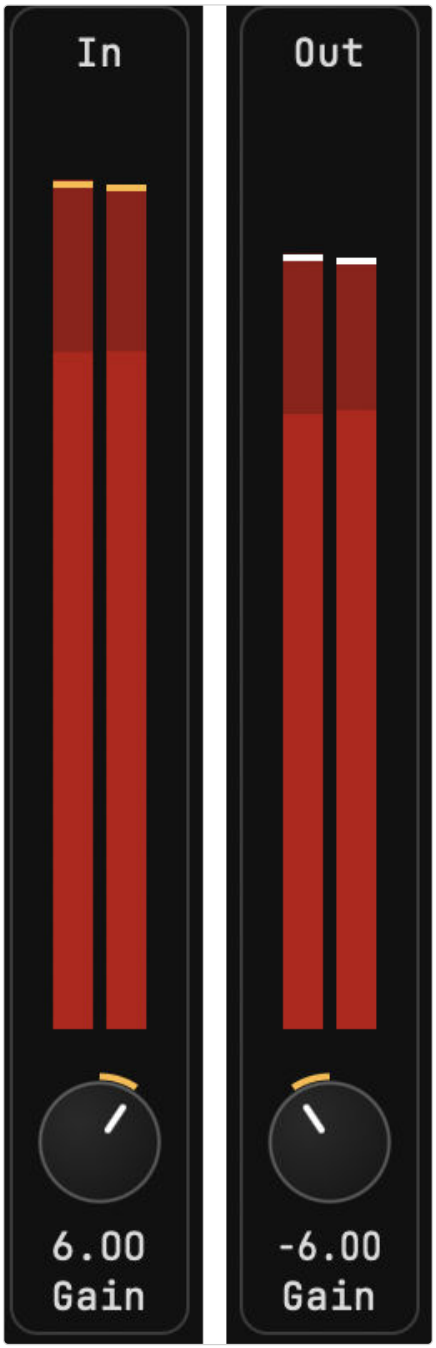
- `Mono Maker`: sums the low end to mono below the cutoff (20 to 500 Hz; fully off at 20). The filter, a 24 dB/oct Linkwitz-Riley high-pass, acts on the Side signal only; the Mid never passes through it.
- `Side Mix`: M/S balance from 0% (mono) through 50% (neutral) to 100% (sides only).
- `Pan`: stereo balance. At C neither side is cut; moving off centre fades the opposite side out in a straight line, to silence at L100 or R100.
- `L ⇄ R`: swaps the channels (the caption flips to show the current state).
- `Mono`: sums the output to mono, for compatibility checks.



The Image column.

IN, OUT AND METERS

`Gain` trims of ±24 dB sit at each end of the chain, with a two-channel meter beside each, spanning −60 to +6 dBFS (the In meter reads after the In gain, the Out meter after Bypass): sample-peak bar (red, turning gold above 0 dBFS - gold is the clip colour here, since red is Align's identity), RMS bar, and a peak-hold line falling at 12 dB/s (white, staying gold while a clip is latched). Click a meter to clear its clip latch. The RMS window is set in Settings (default 300 ms).



In and Out: gain trim and meters.

A/B, Undo and Bypass

- `A` / `B`: two snapshot slots, each holding every setting except `Bypass` switch freely while auditioning. A new instance starts with B holding the same settings as A (factory, or your saved default), so copy `A ▸ B` first to compare two variants of your current sound.
- `A ▸ B` copies the active slot to the other (the arrow flips to `B ▸ A` when B is active).
- `Undo` / `Redo` step back and forward through parameter changes, and dim when there is nothing to step to. Switching A/B or restoring defaults clears the history; colour changes are never in it.
- `Bypass` is latency-compensated: the dry signal is delayed to match, so toggling compares aligned-versus-untouched without any timing jump, click-free. It is also exposed to the host as the plugin's bypass parameter. Bypass is never stored in A/B or in your saved defaults, and no reset changes it: only the button or your host does, and a saved project reopens bypassed if you left it that way.



The transport strip: Undo, Redo, A/B, copy, and Bypass (shown engaged).

LATENCY

Align is a linear-phase tool and buys its flat-magnitude guarantee with latency. It reports the exact figure to the host: roughly 3,500 samples (about 73 ms) at 48 kHz, scaling with sample rate. Your DAW's plugin delay compensation absorbs this completely during playback: everything stays in time, including Align's own bypass.

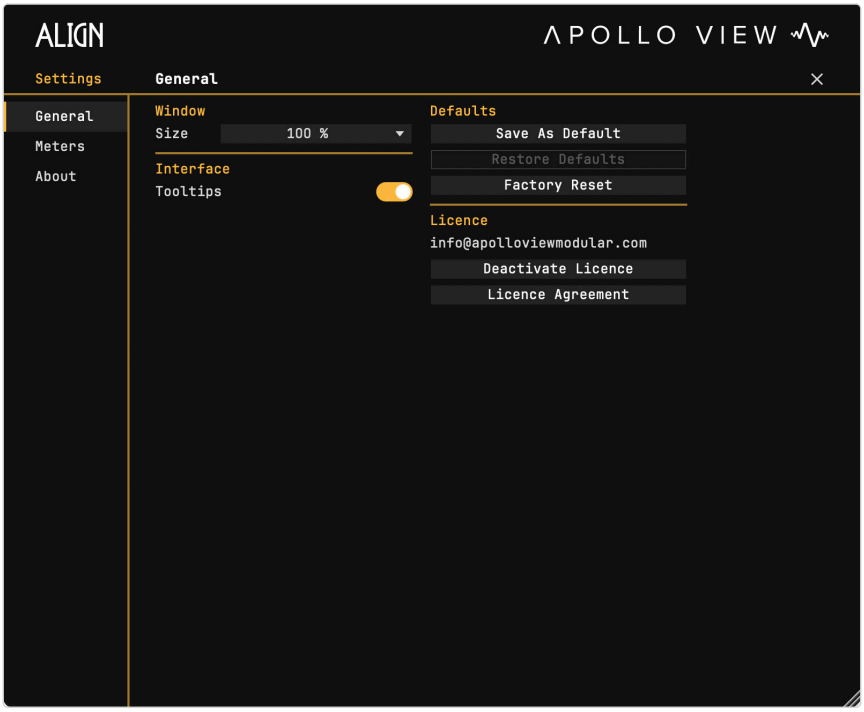
Two practical consequences:

- **Live input paths** (tracking through the DAW, live monitoring) will feel the delay. Align is a mixing and mastering tool; use it on playback paths.
- The latency does not change with your settings, so the host never needs to re-scan mid-session.

SETTINGS

The cog opens Settings over the whole window below the title bar. A list of pages runs down the left; close it with the × or Escape. Every change applies as you make it, and the title bar keeps describing whatever control is under the mouse.

- **General**: four sections. **Window** has `Size`, which sets the window to 75, 100, 125, 150 or 200%, and always shows the size it is now, including one you dragged to between those steps; the size is saved with the project, not in Save As Default. **Interface** has `Tooltips`, which turns the control descriptions in the title bar on and off. **Defaults** has `Save As Default`, which stores the current parameters as the default for every new instance; `Restore Defaults` reloads it in an existing instance (dimmed until one has been saved); `Factory Reset` returns every parameter to factory. None of the three touches `Bypass`. The Licence section shows the email the plugin is licensed to, or Demo mode if it is not, with `Activate Licence...` or `Deactivate Licence` as appropriate, and `Licence Agreement` opens the agreement on our website.
- **Meters**: the `RMS` `Window`, 10 to 1000 ms, default 300 ms. `Reset` in the header, which appears on this page only, returns it to its defaults.
- **About**: the version and the build stamp that identifies exactly which build you are running, with `Check for Update` directly under them, which opens the update page in your browser; `User Manual` opens this manual; `Report a Bug` and `Request a Feature` open pre-filled support emails, the bug report with your version, build, OS and DAW already filled in.



Settings, on the General page.

FILES

Align keeps two files outside your DAW projects, both under `~/Library/Application Support/ApolloView/` on macOS and `%APPDATA%\ApolloView\` on

Windows: the licence (`Align.license`) and your saved defaults (`Align/defaults.xml`). Back up the defaults file when moving to a new machine. The licence doesn't need backing up: just activate again on the new machine. Deleting the licence file returns the plugin to the activation screen; deleting the defaults returns new instances to factory settings.

USE CASES

KICK AND BASS

The headline job, with DeltaScope as the eyes: DeltaScope on the bass with the kick as reference shows the phase relationship; Align on the bass fixes it. Start with `Coarse` until the transients land together (watch DeltaScope's overlay), then `Rotation` until the correlation sits positive and the sub stops cancelling. Verify in the scope, A/B it, done.

SNARE TOP AND BOTTOM

The bottom mic is upside down and a few centimetres late. `Ø` on the bottom channel, then a small `Coarse` / `Fine` shift; the Distance readout tells you the microphone spacing you just corrected.

DI AND AMP

The mic'd amp arrives later than the DI and combs against it. Align on the amp return: delay it backward into the DI (negative shift), then rotate the low end into agreement with `Rotation` or a low-frequency `Allpass`.

MULTI-MIC DRUMS

Room and overhead mics against the close mics: time-shift by distance (the readout works in metres and feet for exactly this), then use M/S or per-channel rotation to settle what timing alone cannot.

M/S MASTERING TIMING

Switch to `M / S`. Sub-sample shifts and gentle rotation between Mid and Side tighten a master's centre image without touching tone; `Mono Maker` anchors the low end while `Side Mix` sets the width.

DEMO MODE

Unlicensed, Align runs as a full demo: every feature works, but the audio mutes for about three seconds in every forty, at a moment that changes from one mute to the next, with a gold `DEMO MODE - CLICK TO ACTIVATE` banner in the title bar. Clicking the banner reopens the activation screen. The mute ramps in and out click-free, each instance keeps its own schedule, and a bounce is muted the same way as playback.

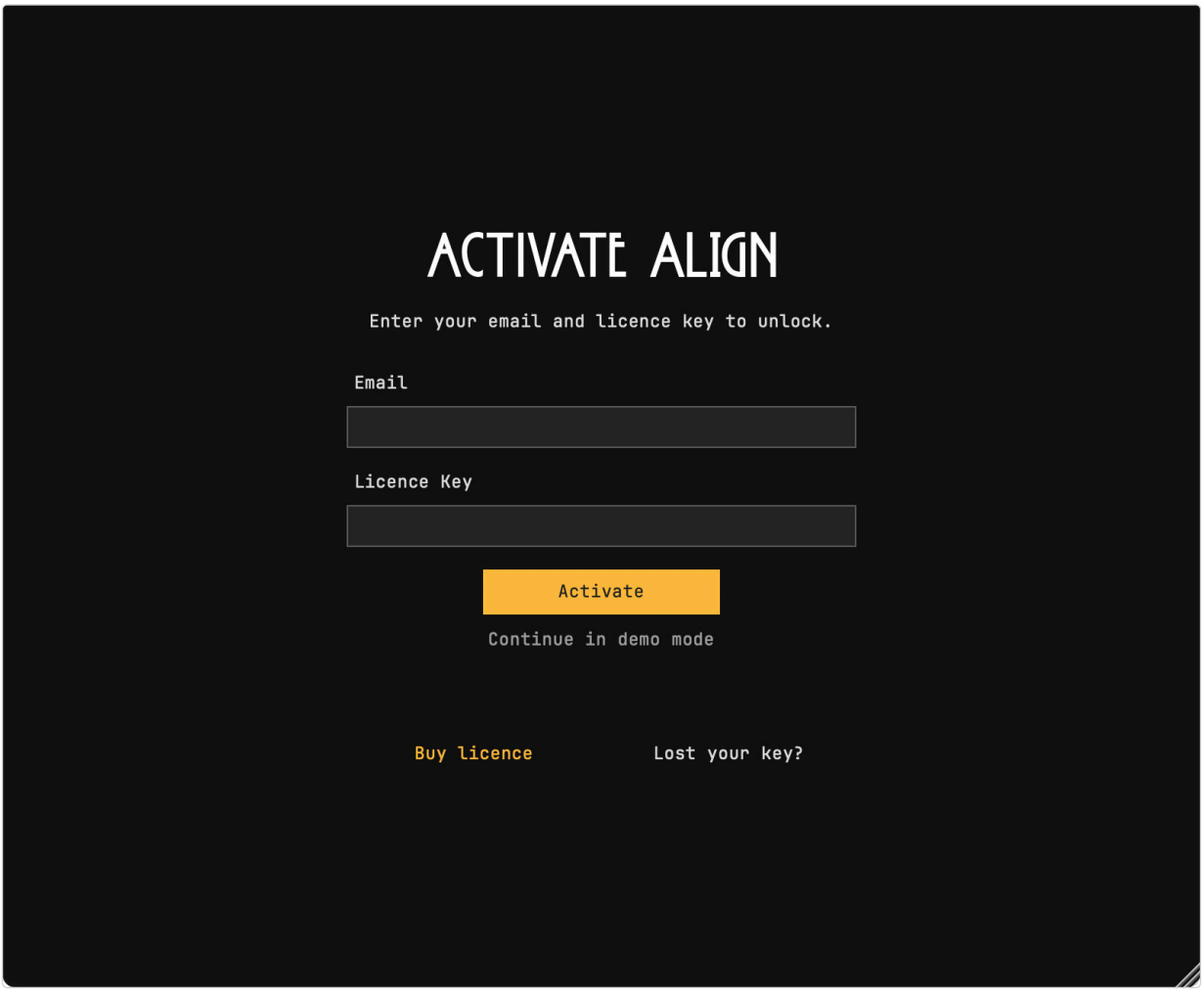


Demo mode: fully functional, gold banner in the title bar.

LICENSING

1. Buy a licence at shop.apolloviewmodular.com/plugins/align (the activation screen's `Buy licence` link goes to the same place, and `Lost your key?` recovers a lost key).
2. Open Align, enter your email and key, click `Activate`.

Activation is fully offline, and one key covers every computer you personally own. `Deactivate Licence` in Settings clears the stored email and key on this machine and returns you to the activation screen.



The activation screen, with demo entry below.

LICENCE AND WARRANTY

Align is licensed, not sold. Use of the software is governed by the End User Licence Agreement shown by `Licence Agreement` in the Settings panel and included with the installer.

Apollo View Modular Ltd supplies this software “as is” and, to the maximum extent permitted by law, accepts no responsibility for harm to persons, apparatus or data caused through the operation of this product. This does not affect your statutory rights.

Please contact support@apolloviewmodular.com with any questions, bug reports or requests.

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