

ALIGN

LINE IT UP



MANUAL V1.0

APOLLO VIEW

TABLE OF CONTENTS

INTRODUCTION	3
What is it?	3
Features	3
System requirements	3
QUICK START	4
OVERVIEW	5
Key	5
THE PHASE CURVE	6
DELAY	8
Readouts	8
BROADBAND	9
ALLPASS	10
FILTER	11
STEREO, M/S AND LINKING	12
IMAGE	13
IN, OUT AND METERS	14
A/B, UNDO AND BYPASS	15
LATENCY	16
SETTINGS	17
Files	17
USE CASES	18
Kick and bass	18
Snare top and bottom	18
DI and amp	18
Multi-mic drums	18
M/S mastering timing	18
DEMO MODE	19
LICENSING	20
LICENCE AND WARRANTY	21

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 μ s, polyphase sinc interpolation, flat to beyond 21 kHz at 48 kHz (scales with sample rate)
- Broadband phase rotation, -180° to $+180^\circ$, 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
CPU	Intel or Apple silicon (native)
Formats	VST3, AU

QUICK START

1. Install, open your DAW, insert Align on the track that needs to move.
2. First open shows the activation screen. Enter your email and licence key and click **Activate**, or click **Continue in Demo** to try everything first (see Demo mode).
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: Every knob double-clicks back to its default, 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: logo, hovered-control tooltips, wordmark. | 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. |

The window is a fixed 800 x 660 pixels. 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

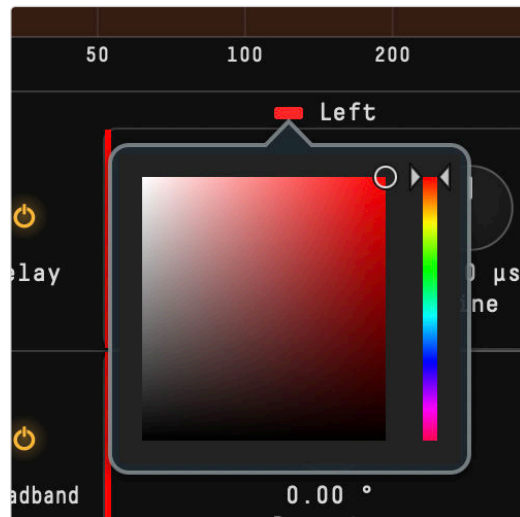
The display at the top is the instrument panel: it draws the **combined** phase response of the Broadband, Allpass and Filter stages for both channels, red for Left and gold for Right by default (they overlap into one trace while sections are linked).

- The frequency axis runs 20 Hz to 20 kHz, logarithmic.
- The phase axis spans -180° to $+180^\circ$ 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 signal actually passing through (post-processing), so you can see which frequencies your phase moves are acting on. It follows the channel format: L/R or M/S.



Unlinked broadband rotation: Left at $+90^\circ$ 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.



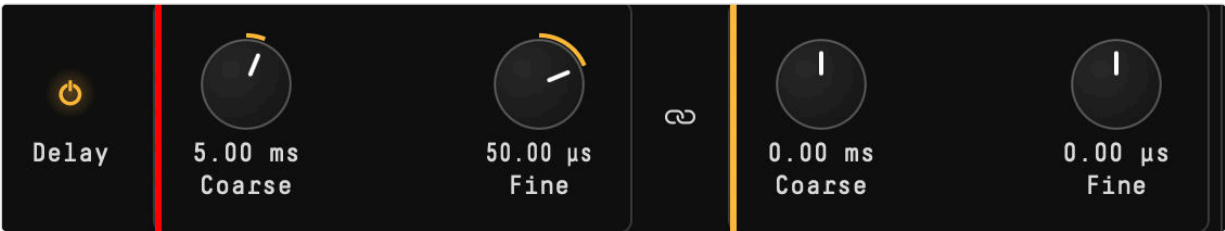
The channel colour picker.

DELAY

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

- Coarse : ± 30 ms in milliseconds.
- Fine : ± 100 μ s 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 μ s shift on the left channel only.

READOUTS

The bottom-left blocks always show the resulting shift:

- **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.

Delay time	L	5.050	Distance	L	1.732
Milliseconds	R	0.000	Metres	R	0.000
Delay time	L	242.4	Distance	L	5'8.2"
Samples	R	0.0	Feet & inches	R	0'0.0"

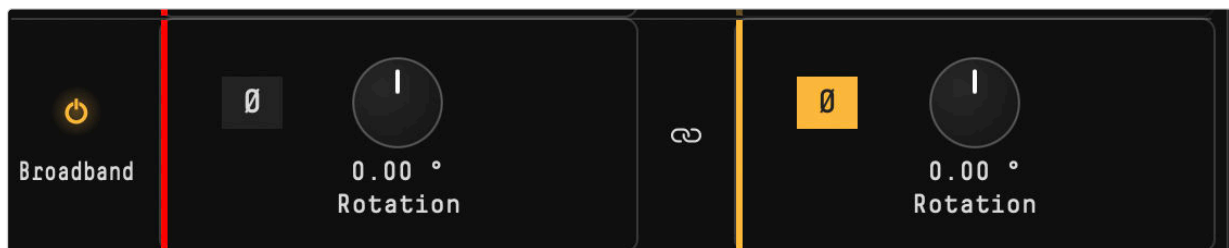
Time and distance readouts; click either block to change its units.

BROADBAND

The phase stage. **Rotation** turns the whole channel's phase by a constant angle, -180° to $+180^\circ$, at every frequency at once, with magnitude flat. 0° passes through untouched; $\pm 90^\circ$ is a quadrature rotation; $\pm 180^\circ$ 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  button inverts the channel's polarity outright (equivalent to $\pm 180^\circ$, 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: an engaged  keeps inverting even while Broadband is off, so clear it before powering the module down.



The Broadband module: Rotation knob and the  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, with the endpoints as clean **Off** positions.

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  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.

On a mono track, Align runs single-channel from the left column's controls; the right column and the entire Image stage are inactive.

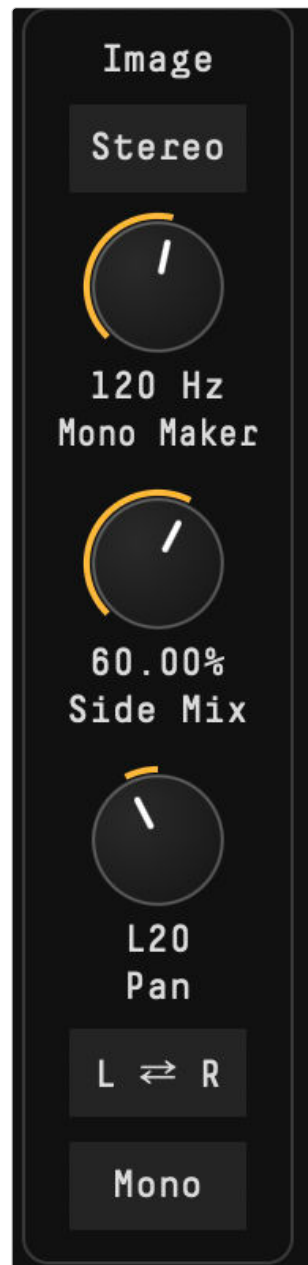


M/S format: the columns become Mid and Side.

IMAGE

The output stage, after the alignment chain:

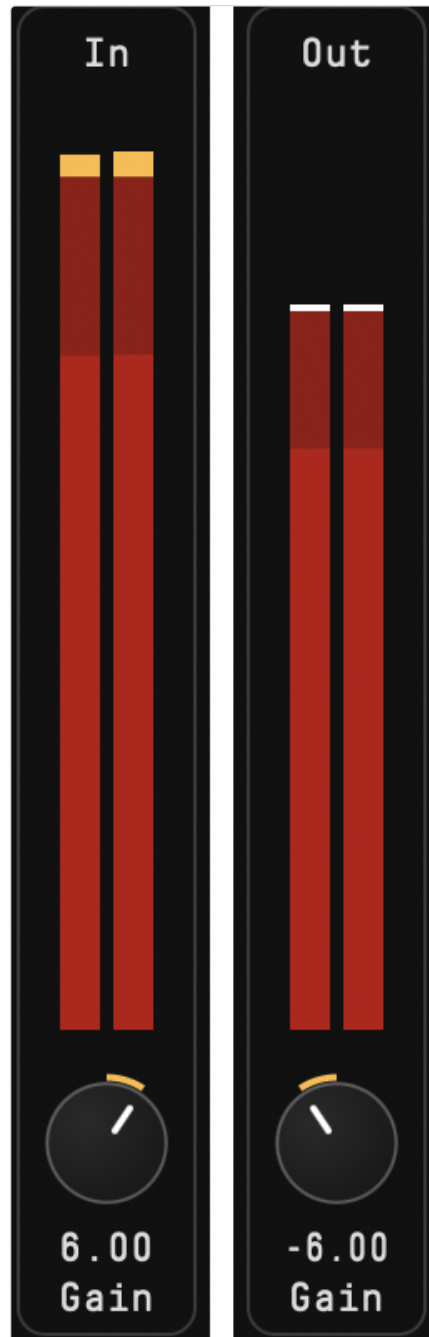
- **Mono Maker** : sums the low end to mono below the cutoff (20 to 500 Hz; fully off at 20). The filtering acts on the Side signal only, so the Mid stays bit-exact.
- **Side Mix** : M/S balance from 0% (mono) through 50% (neutral) to 100% (sides only).
- **Pan** : stereo balance, constant-overlap law.
- **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

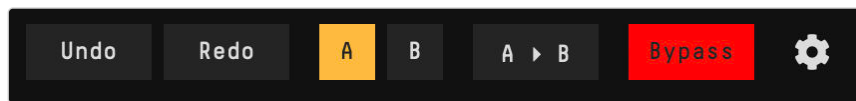
Gain trims of ± 24 dB sit at each end of the chain, with a two-channel meter beside each: sample-peak bar (red, turning gold above 0 dBFS - gold is the clip colour here, since red is Align's identity), RMS bar, and a peak-hold line falling at 12 dB/s (white, staying gold while a clip is latched). Click 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 full snapshot slots; switch freely while auditioning. A new instance starts with B holding factory defaults, 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 through parameter changes (A/B switches, defaults restores and colour changes sit outside the history).
- **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.



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.

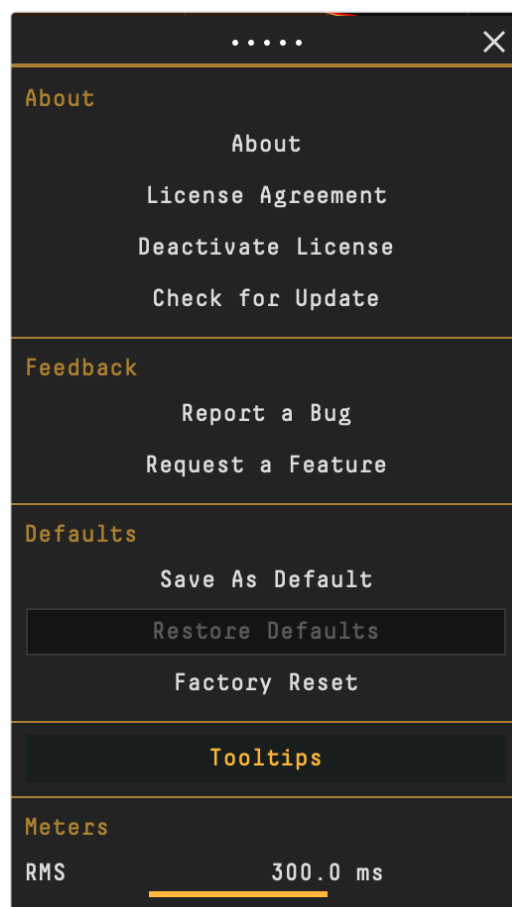
Two practical consequences:

- **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 a floating panel: drag its top handle to move it, close it with the X.

- **About:** `About` (version overlay), `License Agreement`, `Deactivate License`, `Check for Update` (agreement and update check open our website).
- **Feedback:** `Report a Bug` and `Request a Feature` open pre-filled support emails.
- **Defaults:** `Save As Default` stores the current parameters as the default for every new instance (the bypass state is deliberately left out); `Restore Defaults` reloads it in an existing instance (dimmed until one has been saved); `Factory Reset` returns every parameter to factory.
- **Tooltips:** `control` descriptions in the title bar on hover.
- **Meters:** `RMS` window, 10 to 1000 ms, default 300 ms.



The Settings panel.

FILES

Align keeps two files outside your DAW projects, both under

`~/Library/Application Support/ApolloView/` on macOS: the licence (`Align.license`) and your saved defaults (`Align/defaults.xml`). Back them up when moving to a 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. **0** 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 3 seconds out of every 40, 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 runs its own 40-second cycle.



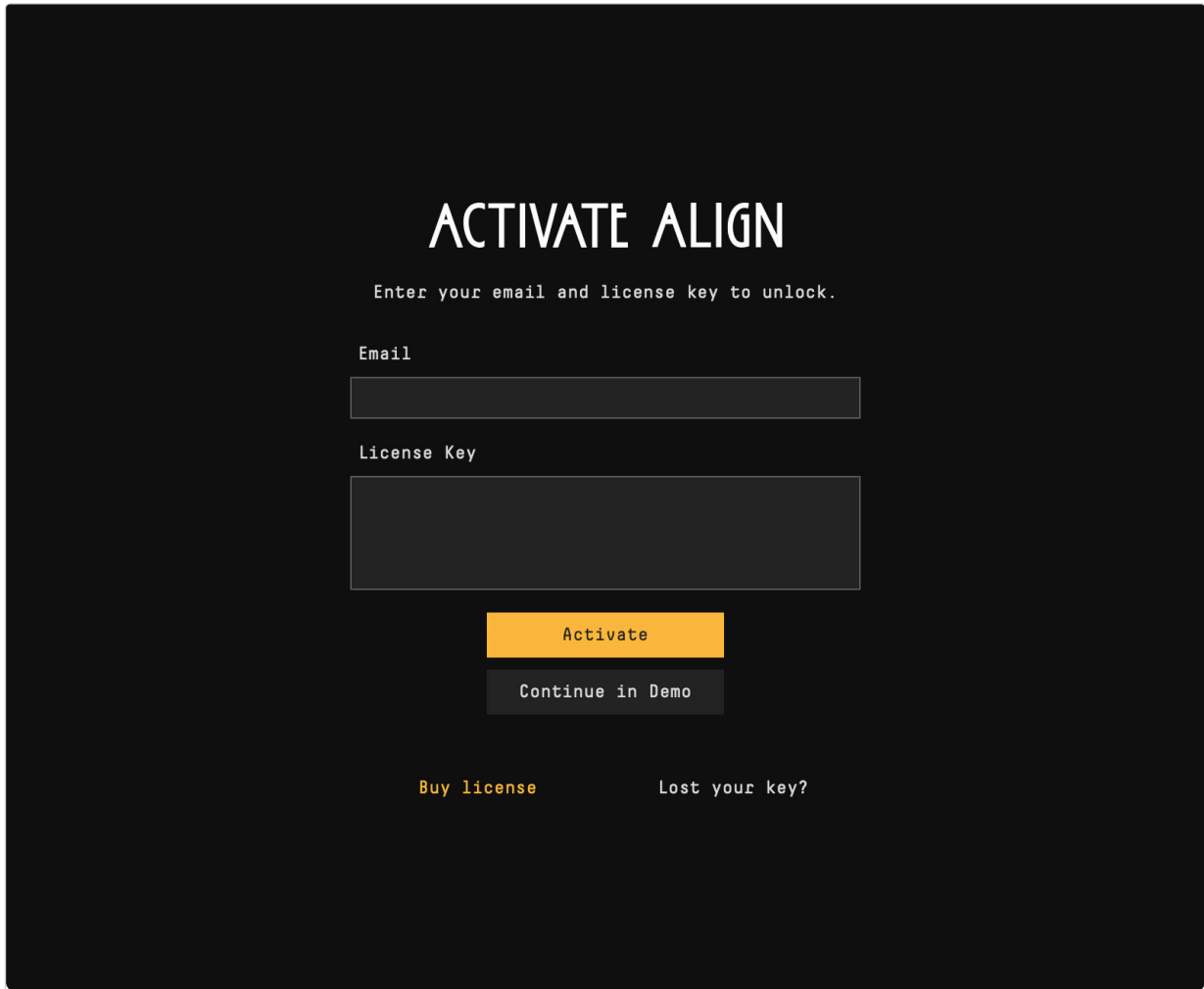
Demo mode: fully functional, gold banner in the title bar.

LICENSING

1. Buy a licence at shop.apolloviewmodular.com/plugins/align (the activation screen's `Buy license` 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 License` in Settings clears the stored key on this machine.



ACTIVATE ALIGN

Enter your email and license key to unlock.

Email

License Key

Activate

Continue in Demo

[Buy license](#) [Lost your key?](#)

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 License Agreement shown by `License 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.

<https://www.apolloviewmodular.com>