OR—3 User Manual

Version 1.2.0

Organismi Instruments

What OR—3 is

OR—3 is a four-deck tape looper from Organismi Instruments. It gives you four tape loops you can play like an instrument. Each deck records from the live input or from another deck, so loops can be copied, layered, set drifting against each other and fed from one machine into the next. Loops evolve without clicks, without runaway feedback and without dropouts.

OR—3 comes as an Audio Unit, a VST3, a CLAP plug-in and a Standalone app for macOS 12 or later, on Apple silicon and Intel Macs. On the iPad, OR—3 is one app from the App Store that is both a standalone instrument and an Audio Unit for hosts such as AUM.

Install

On the Mac: macOS 12 or later (Apple silicon and Intel, one universal installer). Open the installer package and follow its steps. On the Installation Type step, the **Customize** button lists the four formats: **OR—3 Audio Unit**, **OR—3 VST3**, **OR—3 CLAP** and **OR—3 app (Standalone)**. All four are checked by default. Uncheck any you do not want. This manual and the third-party notices are always installed.

What	Where it installs
Audio Unit	`/Library/Audio/Plug-Ins/Components/OR-3.component`
VST3	`/Library/Audio/Plug-Ins/VST3/OR-3.vst3`
CLAP	`/Library/Audio/Plug-Ins/CLAP/OR-3.clap`
Standalone app	`/Applications/OR-3.app`
This manual	`/Library/Application Support/Organismi Instruments/OR-3/Documentation/OR-3-Manual.pdf`

The ten factory Patches are built into OR—3 itself, so nothing is installed into a presets folder. Your own presets live in `~/Library/Audio/Presets/Organismi Instruments/OR-3`. The installer never touches that folder, and removing OR—3 never touches it either.

Logic Pro. If Logic does not list OR—3 after installing, open Logic's Plug-in Manager, select OR—3 and choose **Reset & Rescan Selection**.

Removing OR—3. There is no uninstaller. Delete exactly these five items:

- `/Library/Audio/Plug-Ins/Components/OR-3.component`
- `/Library/Audio/Plug-Ins/VST3/OR-3.vst3`
- `/Library/Audio/Plug-Ins/CLAP/OR-3.clap`
- `/Applications/OR-3.app`
- `/Library/Application Support/Organismi Instruments/OR-3/Documentation`

Never delete the parent folders (Components, VST3, CLAP, Applications, Application Support): other software keeps its files there. Then restart your host. Your own presets stay where they are.

On the iPad: iPadOS 16 or later, on an iPad with an M1 chip or later. OR—3 comes from the App Store as one app that is both a standalone instrument and an Audio Unit for hosts such as AUM. Four decks of tape need a lot of memory, so OR—3 needs an iPad with an M1 chip or later: iPad Pro 11-inch

(3rd generation and later), iPad Pro 12.9-inch (5th and 6th generation), iPad Pro 13-inch, iPad Air (5th generation and later) and iPad mini (A17 Pro). The App Store does not offer OR—3 on older iPads.

Removing OR—3 from the iPad. Delete the app. Your presets live in the app's own storage and go with it, and so do your takes in **Files › On My iPad › OR-3**, unless you moved them somewhere else first.

Using OR—3 in Logic Pro

On a regular audio track, Logic Pro gives OR—3 the live input, and keeps OR—3 running while the transport is stopped, only when the track's **Input Monitoring** button (**I**) is on. With I off, OR—3 hears only the regions the track plays, and when Logic stops, the decks fall silent and Rec and Play/Stop do nothing until Logic plays again.

When you reopen a project, OR—3′s decks can look empty until Logic runs the track (with the track's I on, or once you press Play). The tape is saved in the project, and it appears as soon as the track is live.

1. Insert OR—3 on the audio track that receives your instrument or microphone.
2. Turn on the track's **I** button. Leave **R** (Record Enable) off, so nothing is recorded to the track. OR—3 now hears the live input, and its decks keep playing when Logic stops.
3. To capture OR—3′s output, press **Rec** in the header (see "Recording your output"). To get the audio onto a track in your project, use **File → Bounce → Project or Section** with **Mode** set to **Realtime**, or the Aux and bus recipe below.

On a mono audio track, choose the **Mono→Stereo** entry in the plug-in menu when you insert OR—3. That gives you stereo decks, Pan and reverb on a mono input.

Recording OR—3′s output to a track (advanced). Create an Aux channel strip, set its input to your instrument or microphone input, and insert OR—3 on the Aux. Set the Aux's output to a bus, for example Bus 1. Create an audio track with Bus 1 as its input and record OR—3′s output there: turn its **I** on to hear OR—3, and its **R** on when you record.

To play OR—3 from MIDI in Logic Pro, use the Software Instrument setup in "Which formats receive MIDI".

Using OR—3 in AUM

On the iPad, OR—3 runs as an Audio Unit inside AUM. AUM is the one iPad host OR—3 was tried in during development; see "Known issues" for what has not been tested.

1. In AUM, add an audio channel whose input is your instrument or microphone.
2. In an effect slot on that channel, choose **OR—3** (from Organismi Instruments). Tap the slot to open OR—3′s window.
3. To use a MIDI controller for MIDI Learn and Program Change, route it to OR—3 in AUM's MIDI routing matrix (see "MIDI").

Sync. Synced decks follow AUM's tempo and transport, as they follow a host's on the Mac (see "Sync"). Free decks keep running when AUM stops.

Saving. Saving an AUM session saves the tape on all four decks with it. When you reopen the session, every deck comes back with its tape, Stopped.

Tape length. On the iPad each deck holds 40 seconds of tape at 44.1 and 48 kHz (20 seconds at 96 kHz, 10 seconds at 192 kHz). See "A deck".

No memory for tape. Each OR—3 instance needs its own memory for its tape: about 123 MB at 48 kHz. How many instances fit depends on your iPad and on the rest of the session. If an instance cannot get its tape memory, all four of its decks show **No memory for tape** under their reels. Audio still passes through OR—3, and its knobs, Reverb and Mix still work, but its decks hold nothing new and Rec and

Play/Stop do nothing. Free some memory, for example by removing another OR—3 instance or another large plug-in, and OR—3 gets its tape by itself the next time AUM restarts its audio, for example when you reopen the session.

Getting started

This walk-through records a loop, layers on it, then copies it to a second deck and sets the two drifting apart.

1. In the Standalone app, click **On** next to Monitor so you can hear OR—3 (see "The Standalone app and Settings"). In a host, put OR—3 on a track that receives your instrument or microphone. In Logic Pro, also turn on that track's Input Monitoring (see "Using OR—3 in Logic Pro").
2. Check that deck 1's Source pill reads **Input** (if not, click it and choose **Input**). Press deck 1's **Rec**, play a phrase, and press **Rec** again. That second press closes the loop: its length is the time between the two presses, and the deck plays it back at once.
3. Press **Rec** again while the loop plays to overdub: you now record on top of the loop. Press **Rec** once more to stop overdubbing. **Feedback** sets how much of the old loop survives each overdub pass.
4. Click deck 2's Source pill and choose **Tape 1**. Turn deck 2's **Input send** (the small dark knob above its Source pill) fully down, then press deck 2's **Rec**. Deck 2 copies exactly one loop of deck 1 and closes by itself, so the two decks now play the same loop in step.
5. Turn deck 2's **Shift** a little to the right. Deck 2 runs very slightly faster, so the two copies slowly drift apart and, many passes later, come back together. Turn Shift back to its centre to lock the decks together again.

Nothing here erases a loop by accident: **Undo** in a deck's menu brings back the tape as it was before the last pass, and clearing a deck takes a one-second hold on Rec or the **Clear deck** menu item.

The face

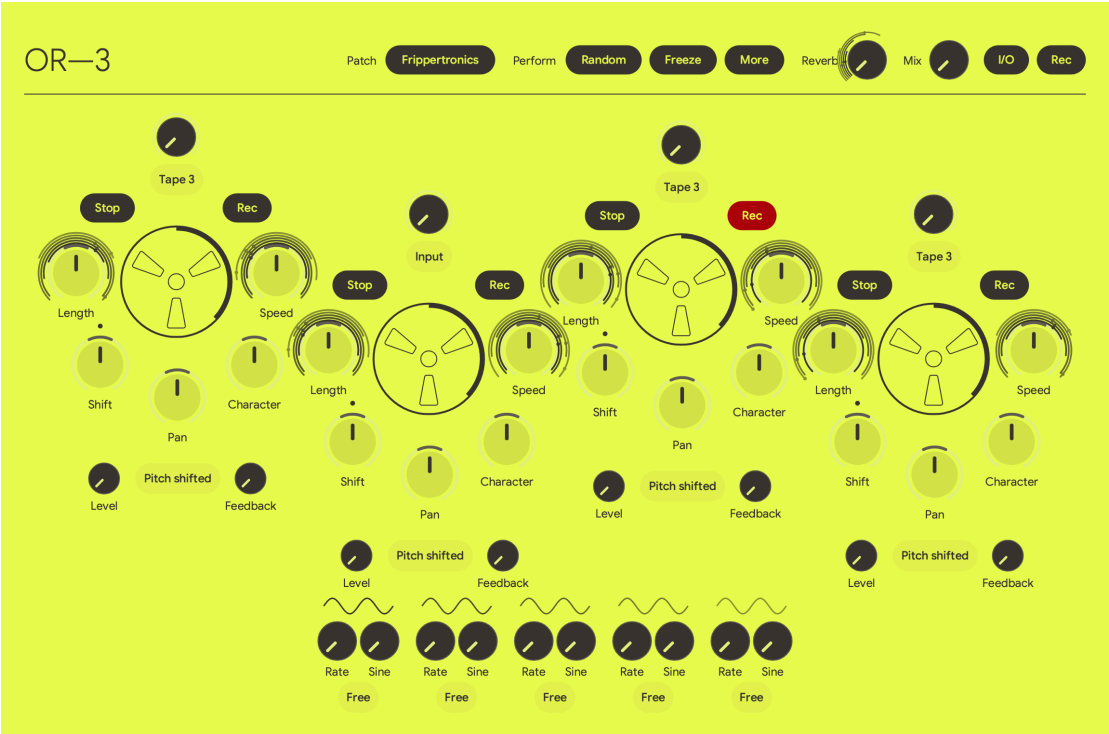


Figure 1: The OR—3 face, four decks playing with the mod strip mapped

Every control name below is the name printed on the face and shown by your host. The face has three parts.

The header runs along the top. From left to right:

- **The OR—3 wordmark.** Click it to switch the face between the light theme and a dark one. Nothing about the sound changes, and the theme is not stored in presets or in your host session.
- **Learn**: turns Learn mode on and off, for MIDI Learn by tap or click (see “MIDI”).
- **Monitor** (the Standalone app only): see “The Standalone app and Settings”.
- **Patch**: the pill shows the loaded Patch or preset. Click it to open the Presets panel.
- **Perform**: the **Random**, **Freeze** and **More** pills, for one-shot performance moves.
- **Reverb**: one knob for the reverb at the end of the chain.
- **Mix**: the balance between the dry input and OR—3′s output. At 0 the dry signal passes untouched.
- **I/O**: opens the Settings panel.
- **Rec**: records OR—3′s output to a file (see “Recording your output”).

The four decks fill the middle of the face, staggered left to right as deck 1 to deck 4. Each is a complete tape machine, described in the next chapter.

The mod strip along the bottom holds five modulation sources that you drag onto knobs (see “The mod strip”).

Drag a knob up or down to turn it. While you drag, its label shows the value. Double-click a knob to return it to its default, and scroll the mouse wheel over it to nudge it. Right-click or Ctrl-click a control for its menu. Drag the window corner to resize the face; it keeps its proportions.

A deck

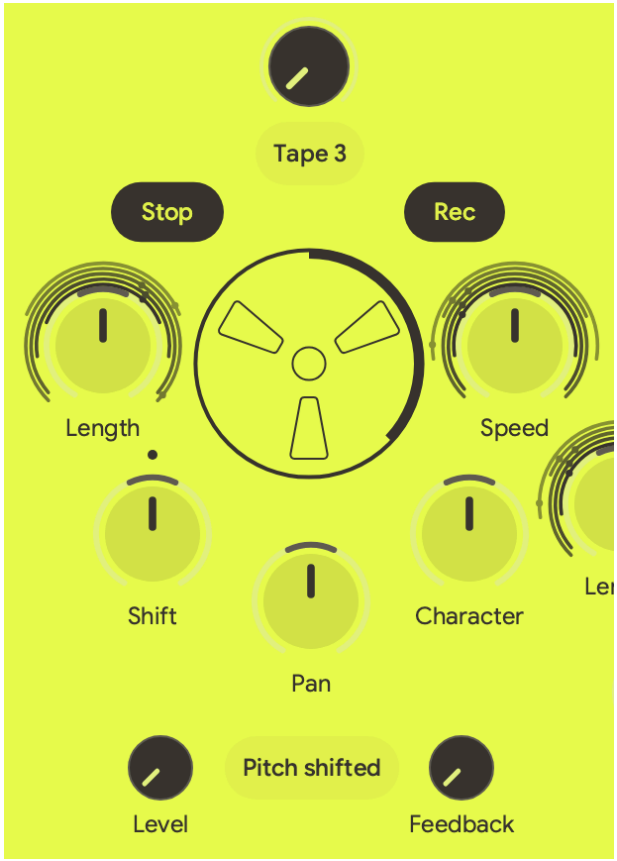


Figure 2: Deck 1: Input send, Source, Play/Stop and Rec around the reel, the knob ring, and Level, mode chip and Feedback

The reel in the centre turns with the real position of the tape head: faster when the deck plays faster, backwards when it plays in reverse, still when the deck is stopped. The arc around its rim shows how

far through the loop the head is. An empty deck shows a dimmed, still reel. Right-click or Ctrl-click the reel for the deck menu: **Undo** (or **Redo**), **Clear deck**, **Reverse**, **MIDI Learn** and **Export loop…** (see "Recording your output").

Rec acts the moment you press it, so you can punch in on the beat.

- On an empty deck, the first press starts recording and the next press closes the loop. That first pass sets the loop's length. Pressing **Stop** instead also closes the loop, and leaves the deck stopped.
- On a playing deck, Rec punches in an overdub, and the next press punches out. On a stopped deck, Rec starts the tape and punches in with one press.
- While the deck records, the Rec pill turns red. When a Rec is waiting to begin (a Synced deck waiting for the next bar, for example), the pill turns light with a dark ring and pulses. Press Rec again to cancel the wait.
- Hold Rec for one second to clear the deck. A ring sweeps around the pill while you hold; let go early and nothing happens. You can also choose **Clear deck** in the deck menu.

Play/Stop reads **Stop** while the deck plays or records and **Play** otherwise. Stopping fades the deck out and keeps its place on the tape; Play fades it back in from there. Punching in, punching out, stopping, starting, the loop's seam, and every speed, length and mode change are click-free.

Undo in the deck menu takes back the last recording pass, including a Clear, and **Redo** puts it back. There is one level of undo per deck: the next recording pass replaces it.

Length sets the loop length, up to 60 seconds. On the iPad a deck holds 40 seconds of tape at 44.1 and 48 kHz (20 seconds at 96 kHz, 10 seconds at 192 kHz); a longer Length plays the whole tape, and the readout shows the real length. Shortening a loop does not erase anything: Length is a window over the recorded tape, so turning it back up brings the rest back. On a Synced deck, Length steps through musical lengths instead (see "Sync").

Speed is a tape varispeed. At noon the deck plays at normal speed. Turn right to play faster, up to twice the speed (an octave up). Turn left to play slower, down to a stop about halfway to the left end, then on into reverse, reaching normal speed backwards at the left end. Speed glides like a tape motor rather than jumping, and pitch follows speed, as on real tape. OR—3 also records at the deck's speed, as real tape does: record at half speed, play back at normal speed, and what you recorded plays an octave up.

Reverse in the deck menu flips the direction of play with the same motor glide. Mellotron and Dubby only play forwards, so Reverse is unavailable in those modes.

Shift makes the deck drift slightly faster (right) or slower (left) than its Speed, by up to 1 % at the ends. Two decks holding the same loop drift apart and back together. At the centre, Shift is a detent that holds the deck exactly in step: the small dot above Shift is filled while Shift is exactly centred and hollow as soon as it is off centre.

Character sets how much of the current mode's flavour you hear. At 0 every mode is clean (see "The nine modes").

Pan places the deck in the stereo field. **Level** sets the deck's output level.

Feedback sets how much of the old tape survives each overdub pass. At 100 % an overdub layers on top of everything already there; lower settings let older layers fade a little more on every pass. In Mellotron and Magneto, which replace the tape instead of layering, Feedback is dimmed and has no effect; it keeps its value for when you switch back.

The Source pill above the reel shows what the deck records: **Input** or another deck's tape, **Tape 1** to **Tape 4**. See "Routing and recipes".

Input send is the small dark knob at the top of the deck. It mixes your live input into what the deck records when its Source is another deck's tape. The thin arc around it is the deck's input meter.

The mode chip below the reel shows the deck's mode. Click it to step to the next mode, or right-click or Ctrl-click it for the Mode menu. Switching mode never changes the recorded tape and never changes another control: switch back and the deck sounds as it did.

If a session reopens without a deck's tape (because the saved tape could not be read), the deck is left empty and shows **Tape not restored** under its reel until you record on it again. Its other settings are restored.

If a deck's saved tape is longer than the tape it reopens on (for example a 40-second loop saved on the iPad at 48 kHz and reopened at 96 kHz, where a deck holds 20 seconds), the deck keeps the first part of its loop, Stopped, and shows **Tape shortened** under its reel until you record on it again.

The nine modes

Each deck has its own mode. A mode sets how Speed behaves, what flavour the deck has, and how it records: most modes layer overdubs on the tape, and two replace it. **Character** sets the amount of the flavour, and at Character 0 every mode is clean. You can switch modes while a deck plays or records: the change takes effect at once, the flavour crossfades in about 50 ms, and nothing is erased. The modes, in the order of the Mode menu:

Pitch shifted. The plain tape machine and the default. Speed is continuous and pitch follows it, with overdubs layering on the tape. Character adds the colour of a reel-to-reel machine.

Synced. The deck locks to the tempo. Speed steps through musical ratios: 2× and 4× faster, ½× and ¼× slower, and normal and double speed backwards (noon is 1×). Length steps through musical lengths from a quarter beat to 16 bars, and the loop follows tempo changes by changing speed, as tape would. Shift becomes step-phasing: off centre, the deck jumps by a sixteenth note every few loops, more often the further you turn it, in the direction you turn it. Character is a tape-stop flavour: at 0, speed changes and starts and stops happen at once on the grid; at 100 % they brake and spin up over up to one beat. See "Sync" for how Synced decks record and follow the transport.

Mellotron. Speed steps in semitones, up to an octave above at the right end and two octaves below at the left end, and the deck only plays forwards. Rec captures exactly one pass at normal speed and replaces what was on the tape, like loading a new tape strip. Each pass gets its own slight wow and swell; Character sets how much.

Broken tape. A worn, damaged tape: dropouts, snags, crinkles and warble, more of them as Character rises. All the damage happens on playback, so whatever you record lands on clean tape and survives.

Dubby. A tape echo with heavy, swooping speed changes: Speed glides slowly to its new value and only plays forwards, from a quarter of normal speed to twice normal speed. Character darkens and smears the repeats. However high you set Feedback and Character, the repeats stay below the point of runaway.

Magneto. An old wire recorder. Speed wanders gently within a narrow range, and recording replaces the tape but leaves a faint ghost of what was there, louder as Character rises. The tone is narrow and saturated, with a little hum.

Disintegration. Each pass the tape plays, it wears away: high frequencies go first, then holes and grit appear, until the loop crumbles to near silence. Character sets how fast. At 100 % a loop is mostly gone in 10 to 15 passes; at 0 nothing wears. **Undo** in the deck menu brings back the loop as it was before it started to wear.

Stretched. Speed changes time but not pitch: slow the deck down and the loop stretches out at the same pitch. At the stop point of the Speed knob the sound freezes into a held cloud, and past it, to the left, time runs backwards, still at the same pitch. Character spreads the sound from tight to a diffuse cloud.

Cut-up. Playback splices the loop into segments and plays them in a random order, some of them reversed. Character sets how often it splices and how many segments play backwards: at 0 the loop plays straight. The tape itself keeps its order, so turning Character down or leaving the mode gives you the original loop back. Every splice is crossfaded, so it never clicks.

Routing and recipes

Every deck records from its **Source**. Click the Source pill for the Source menu: **Input** or **Tape 1** to **Tape 4**. A deck cannot record from itself, so its own number is greyed out in the menu. Source changes are crossfaded.

When the Source is another deck's tape, **Input send** mixes your live input into the recording as well. That is how a deck can record another deck's loop and your playing at the same time.

Copying a loop. Set an empty deck's Source to another deck's tape, turn its Input send fully down and press Rec. The deck records exactly one loop of the source and closes by itself. The copy then plays in step with the original.

Reich phase. Copy a loop from deck 1 to deck 2 as above, pan the two decks apart, and turn deck 2′s **Shift** a little off centre. Deck 2 runs very slightly faster or slower than deck 1, so the identical loops drift apart into echoes, canons and textures, and much later line up again. The smaller the Shift, the slower the drift. The **Reich Phase** Patch sets this up for you.

Frippertronics. Two machines feeding each other. Set deck 1′s Source to **Tape 2** with its Input send up, and deck 2′s Source to **Tape 1**. Record a loop on deck 1, let deck 2 copy it, then set both decks overdubbing. Each pass, deck 1 records deck 2′s tape plus what you play, and deck 2 records deck 1′s tape, so every phrase travels round the pair and slowly fades as new ones join it. Feedback sets how long phrases survive. However you set it, the pair never builds up into a runaway (see "Safety"). The **Frippertronics** Patch sets this up for you.

Chains of more than two decks work the same way: any deck can record any other, and loops can run round any cycle of decks.

Safety

OR—3 is built never to run away. Whatever the routing, modes, Character, Feedback and modulation, every loop of decks recording each other loses a little level on each trip round it, so sound cannot build up without limit. A safety stage watches every such loop and holds its gain at 0.97 (about −0.26 dB) per pass at most. Each recording also passes a soft ceiling, and any invalid sample is caught before it reaches the tape.

Two things follow from this that you may hear:

- **Inside a loop of decks, 100 % Feedback reads lower.** When two or more decks record each other, the safety stage scales their feedback and the feed between them down so the loop as a whole stays at 0.97. A 100 % Feedback therefore fades more quickly inside such a loop than on a deck overdubbing on its own.
- **A copy of a loop can swell a little before it fades.** A deck that records from a loop of decks without being part of it keeps its full feed. Its level can rise a little for a few passes (by up to about 1.1 times its energy over one pass) before it fades along with the loop.

Feedback loops can sustain sound for a long time: set your monitoring level with care.

Sync

Your host's transport never erases tape. Starting and stopping the host, or a host sending its reset, leaves every loop where it is. Decks keep playing their loops after your input goes silent, so OR—3 tells your host that its tail never ends.

Free decks (every mode except Synced) ignore the transport: they keep running when the host stops.

Synced decks follow the tempo and the bar:

- **Length** steps through 1/4 beat, 1/2 beat, 1 beat, 2 beats, 1 bar, 2 bars, 3 bars, 4 bars, 6 bars, 8 bars, 12 bars and 16 bars, limited to what fits on the deck's tape at the current tempo (60 seconds on the Mac, 40 seconds on the iPad at 44.1 and 48 kHz).
- **Rec** on an empty Synced deck waits for the next bar line, then records for exactly the Length and closes by itself, so the loop starts on the grid. A second press of **Rec** before the bar cancels the armed Rec. Overdub punches land on the beat.
- When the host stops, a playing Synced deck stops with it. When the host plays again, the deck starts on the bar, in step with the song position. **Play/Stop** on a Synced deck arms it, or disarms it, for the next host start.
- A Synced deck waiting for the host to start shows **Waiting for host Play** under its reel. In the Standalone app it reads **Waiting for clock** or **Waiting for Play**.
- When the tempo changes, a Synced deck changes speed to match, so its pitch moves with the tempo, as tape would.
- A loop is never recorded across a jump in the host's playback position.
- A free loop switched to Synced is fitted to the nearest Length step by changing its speed. The tape is not touched, and switching back restores the original speed.

Where the tempo comes from. In a host, OR—3 follows the host's tempo and transport. The Standalone app follows incoming MIDI clock (24 pulses per quarter note, with Start, Stop, Continue and Song Position) when a MIDI input sends it, and otherwise runs on its own tempo, which you set in the Settings panel. The Settings panel shows which one is in use: **Clock: Internal** or **Clock: MIDI**. VST3 plug-ins cannot receive MIDI clock at all: in a VST3 host, Synced decks follow the host's tempo only.

The mod strip

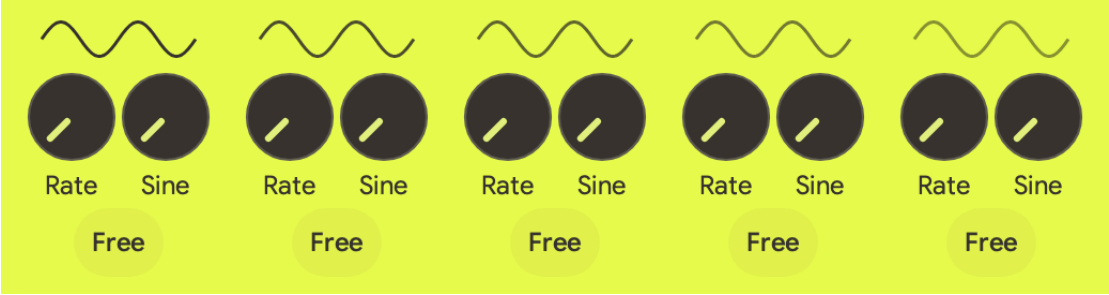


Figure 3: The mod strip: five slots, each with its wave, Rate and Shape knobs and Free/Sync pill

The mod strip holds five modulation sources. Each has a wave icon, a **Rate** knob, a **Shape** knob and a **Free**/**Sync** pill.

- **Shape** steps through Sine, Triangle, Ramp Up, Ramp Dn, Random and S&H (sample and hold). The wave icon shows the current shape.
- **Rate** runs from 0.01 to 10 Hz in Free. Click **Free** to switch the slot to **Sync**: the Rate knob then steps through twelve note divisions, from 8/1 down to 1/16, including dotted and triplet values, and follows the tempo.

Drag to map. Press a wave icon and drag it onto a knob. The knobs that accept modulation light up as you pass over them: each deck's Length, Speed, Shift, Character and Pan, plus Reverb and Mix. Drop the icon and a ring appears around the knob at a depth of +25 %.

Depth. Each mapping is a ring around the knob in the slot's colour, showing how far the slot swings the knob. Drag the ring up or down to set the depth, from −100 % to +100 %; negative depths run the source upside down. The knob still sets the centre value. Several slots can map the same knob, each with its own ring.

Unmap. Double-click the ring, or drag its depth to 0.

Hover over a wave icon to highlight that slot's rings on every knob. Modulation never pushes a control past its range and never breaks the feedback safety described in "Safety".

Patches and presets

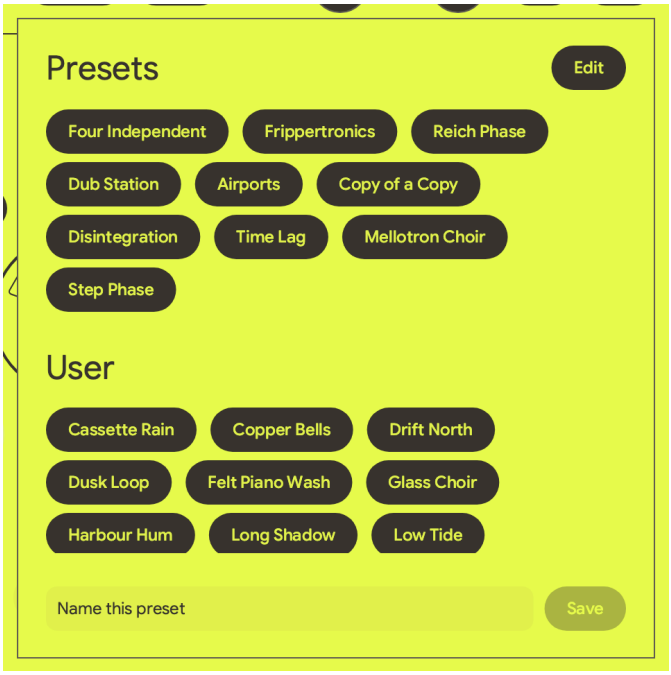


Figure 4: The Presets panel: the ten factory Patches, your own presets under User, and the name field with Save

A Patch sets up the decks around the tape you already have. It stores every knob and choice on the face: each deck's Source, Input send, mode, Length, Speed, Shift, Character, Pan, Level, Feedback and Reverse, the mod strip with all its mappings, Reverb and Mix. It never stores tape audio, and never Play/Stop or Rec. Your own presets work the same way as the factory Patches.

The Patch pill in the header shows the loaded Patch or preset. A fresh OR—3 reads **Four Independent**. As soon as you change a control, a star appears after the name (for example **Reich Phase***) to show that the sound has moved away from the Patch. A session saved with no known Patch reads **Untitled**. The name and its star are saved with your host session. Click the Patch pill to open or close the Presets panel.

Loading. Click a Patch or preset in the panel to load it:

- The knobs glide to their new values over about a third of a second.
- The tape on every deck is kept. A deck that is recording punches out cleanly, and Play/Stop stays as it was.
- A new Length is applied only to empty decks. A deck that holds a loop keeps its length.
- Your MIDI bindings and Freeze are not changed.

The panel stays open after a load, so you can try one Patch after another on the playing tape. Clicking the loaded entry again brings back its values and clears the star. Close the panel by clicking the Patch pill again, pressing Esc, or clicking outside it.

The ten factory Patches, in the order of the panel and of Program Change:

- **Four Independent**: every control at its default, four separate decks. A fresh OR—3 is this Patch.
- **Frippertronics**: deck 1 records deck 2's tape plus your input, and deck 2 records deck 1's tape (see "Routing and recipes").

- **Reich Phase**: deck 2 copies deck 1 and drifts 0.1 % faster, the two panned hard left and right.
- **Dub Station**: a one-bar Synced loop and three Dubby echo copies of it, at 2×, 4/3× and 1× speed.
- **Airports**: four clean Mellotron captures at Brian Eno's loop lengths, each panned by its own slow sine.
- **Copy of a Copy**: a Magneto, a Broken tape and a Disintegration generation of deck 1.
- **Disintegration**: deck 1 disintegrates while three slow Dubby copies smear what is left.
- **Time Lag**: a cascade of slower and slower copies, their periods in the ratio 3 : 5 : 7 : 11.
- **Mellotron Choir**: deck 1 captured a third, a fifth and an octave up.
- **Step Phase**: two one-bar Synced loops, deck 2 stepping a sixteenth note further every 12 passes.

Saving. Type a name in the **Name this preset** field at the bottom of the panel and click **Save** or press Return. The Patch pill takes the new name, without a star, and the preset appears under **User** in alphabetical order. If a preset with that name exists, the panel asks `Overwrite "Name"?`: click **Overwrite** to replace it or **Keep Existing** to go back to the name field. Names can be up to 64 characters; a name with no letters or numbers is refused with "Use letters or numbers in the name".

Renaming. There is no rename command: save the preset under its new name, then delete the old one.

Deleting. Click **Edit** at the top of the panel (it is dimmed until you have saved a preset). Each of your presets gets a small × badge: click it to delete that preset at once. There is no undo. Click **Done editing** to leave. Factory Patches cannot be deleted. If you delete the preset that is loaded, the Patch pill keeps its name with a star.

On the iPad. Your presets are shared between the OR—3 app and the OR—3 Audio Unit in a host such as AUM: a preset saved in one appears in the other. In the app, the Presets panel has two more pills beside **Edit**:

- **Import…** opens Files, where you pick one or more `.or3preset` files. They are copied into your presets and nothing is loaded. If a preset with the same name exists, both are kept and the imported one gets a number, for example **Dusk Loop 2**. A file that cannot be read is skipped, and the panel says how many could not be imported.
- **Export…** saves the current settings as a preset file named after the Patch pill (for example `Reich Phase.or3preset`) and opens the share sheet, so you can save it to Files or send it to another device.

Where your presets live. Each preset is a small text file with the extension `.or3preset`. On the Mac they are in `~/Library/Audio/Presets/Organismi Instruments/OR-3`, and you can copy them between computers. On the iPad they live inside the OR—3 app; use **Import…** and **Export…** to move them. The panel lists up to 512 of them. A preset that cannot be read (damaged, or saved by a newer OR—3) shows "Couldn't load this preset. The file may be damaged or from a newer OR—3." and nothing changes.

Perform



Figure 5: The Perform pills and the More menu

The **Perform** group in the header holds three pills for one-shot moves across all four decks. **Random** and **Freeze** act the moment you press them, so you can play them on the beat.

Random rolls new values for every deck's mode, Speed, Shift, Character and Pan, and the knobs glide there over about a third of a second. It keeps a deck playing forwards between a quarter of normal speed and twice normal speed, on the mode's own steps; it keeps Character at 80 % or below, never pans hard, and never picks Disintegration, so it never starts wearing a loop away by itself. It never touches Feedback, Length, Source, Input send, Level, the mod strip, Reverb or Mix, and it never changes the tape.

Freeze punches out every recording deck and cancels any Rec that is waiting, and your takes are kept. Press Rec on any deck after that and it records as usual. The decks keep playing, and the knobs and deck menus stay live. Freeze lights while it is on, and changes nothing else while it is lit. It is not saved: a reopened session starts unfrozen.

More opens the Perform menu:

- **Mutate** nudges the same controls as Random by about 10 % (Speed by one step in stepped modes). It never changes a deck's mode.
- **Realign** jumps every deck's playhead back to the start of its loop at once, with a crossfade, so loops that drifted apart start together again. Synced decks realign to the bar.
- **Reverse All** flips every deck's Reverse. Mellotron and Dubby decks keep playing forwards, as always.
- **Tape Stop** brakes every deck to a stop over about a second, like pulling the plug on a tape machine. Choose it again (it reads **Tape Stop (on)** while engaged) and the decks spin back up. It does not change the decks' Play/Stop.
- **Clear All** clears every deck that holds a loop. Press and hold the row: a ring sweeps round, and after one second the decks clear. Let go early and nothing happens. Each deck's **Undo** brings its loop back. The row is dimmed while every deck is empty.
- **Undo Random** (or **Undo Mutate**, whichever you used last) glides back to the values from before it. There is one level of undo, and it is unavailable after you load a Patch or OR—3 receives a Program Change.

Recording your output



Figure 6: The header Rec while a take records

The **Rec** at the right end of the header records exactly what OR—3 plays, with the decks, the reverb and Mix, to a stereo 24-bit WAV file at the session's sample rate. It works in every format, with no routing in the host. It is not a deck's **Rec**: a deck's Rec records onto that deck's tape, and the header Rec records OR—3's output to a file on your disk.

Press **Rec** and the take starts at once, whatever the host transport is doing. The pill turns red and its label becomes the running M:SS timer. Press it again to stop.

While a take runs. The timer counts audio written. If the host stops running OR—3, the take pauses and writes nothing, then carries on when audio returns, with no silence and no new file. Closing OR—3's window does not stop a take.

How a take ends. Pressing **Rec**, removing the plug-in and quitting the host each end the take as a valid file. A take also ends at the 2-hour limit, and when the session's sample rate changes. A take that never received any audio leaves no file.

Finding a take. Takes go to `~/Music/OR-3`, named by date and time, for example `OR-3 2026-11-04 14.32.07.wav`. Right-click or Ctrl-click the **Rec** for **Show Last Take in Finder** and **Show Takes Folder**, or Option-click it for the last take. Option-click never starts or stops a take.

Disk problems. A disk problem ends the take cleanly and keeps what was written as a playable file. The pill then shows a short word in place of **Rec**: **Full** when the disk is full, **Locked** when OR—3 cannot write there, and **Slow** when the disk could not keep up. A take that could not start shows the same word. The next press clears it.

Several instances. Several OR—3 instances can record at once, each to its own file. If two takes start in the same second, one of them gets a number after its name.

The **Rec** is not a host or MIDI parameter and is not saved, so a reopened session never starts recording.

Exporting a loop. To save one deck's loop as a file, right-click or Ctrl-click the deck's reel and choose **Export loop…**. You get the raw loop exactly as it was recorded on the tape: one pass, played forwards, without the deck's Speed, Reverse, Character, mode or the reverb, as a 24-bit WAV at the rate the tape was recorded at, named `OR-3 Deck N Loop` followed by the date and time, for example `OR-3 Deck 2 Loop 2026-11-19 14.32.07.wav`. On the Mac the file goes to `~/Music/OR-3`, next to your takes, and Finder shows it once it is written. On the iPad the share sheet opens at the reel, so you can save the loop to Files or send it to another app; the file is removed when the share sheet closes and never lands in the takes folder. **Export loop…** is dimmed on an empty deck, while a deck records its first pass, and while an export of that deck is still being written. On a deck that is recording over its loop, it exports the loop as it was when you chose the row, without waiting for the overdub to end. If the file cannot be written, **Loop not exported** shows under the reel for a few seconds.

On the iPad. The header **Rec** records in the Standalone app and in the Audio Unit inside a host such as AUM, exactly as on the Mac. Takes are saved in the Files app, in **Files › On My iPad › OR-3 › Takes**. A take recorded inside a host is kept in a shared folder first, and moves to that Takes folder the next time the OR—3 app opens or comes back to the front.

- **Touch and hold Rec** for its menu. A tap starts or stops a take when you lift your finger; a hold of half a second opens the menu and does not start or stop anything. With a pointer or trackpad, right-click works too.

- **Share last take…** opens the share sheet for your newest take, so you can send it to another app, AirDrop it or save it elsewhere. It is dimmed while there is no take to share.
- **Takes…** (in the Standalone app) opens the takes list. Inside a host, **Share a take…** lists your eight newest takes; tap one to share it.

The takes list. The list shows your takes newest first, each with its name, the date and time it was recorded and its length. **Play** plays the take, and the row then reads **Stop** and shows how far it has played. The preview always reaches your speakers or headphones, even with Monitor off, and the header Rec never records it. **Share…** opens the share sheet for that take. **Delete** asks once (**Delete take "…"? This cannot be undone.**) and removes the file; **Cancel** leaves it. The list shows the newest 512 takes; Files holds the rest. If a take was moved or deleted in Files meanwhile, the list says so and refreshes.

MIDI

Program Change. Program Change 0 to 9 loads the ten factory Patches, in the order of the Presets panel:

Program	Patch
0	Four Independent
1	Frippertronics
2	Reich Phase
3	Dub Station
4	Airports
5	Copy of a Copy
6	Disintegration
7	Time Lag
8	Mellotron Choir
9	Step Phase

Program Change 10 and up loads your own presets, in the order the Presets panel lists them. A number past your last preset is ignored. Program Change is received on every MIDI channel and works with OR—3′s window closed.

A Program Change loads a Patch exactly as the Patch pill does: every deck that is recording punches out, the knobs glide to their new values, and the tape on every deck is kept. Sending the number of the Patch that is already loaded, unchanged, does nothing. Reopening a session never loads a Patch over it: OR—3 ignores a program change that arrives while the session is being restored, and a host that sends its saved program again finds that program already selected.

How Program Change reaches OR—3 depends on the format:

- **Audio Unit.** A Program Change on the track's MIDI, from a region or a controller, loads a Patch (see "Which formats receive MIDI" for how to insert OR—3 in Logic Pro so that it receives MIDI). The Audio Unit also offers the ten Patches as its factory presets, so the plug-in's preset menu lists them; choosing one loads it like a Program Change.
- **VST3.** A VST3 plug-in receives no Program Change as MIDI. Instead, OR—3′s VST3 gives the host a program list of the ten factory Patches, programs 0 to 9; choosing a program there loads that Patch like a Program Change. Your own presets are not in the host's list: load them from the Patch pill. Whether a Program Change in an Ableton Live clip reaches the VST3 is not yet verified.

- **CLAP and the Standalone app.** Program Change arrives as MIDI: 0 to 9 load the factory Patches and 10 and up your own presets. In the Standalone app, enable a MIDI input first (see "The Standalone app and Settings").

Two limits apply to the host's program list in every format. When you load a Patch from the Patch pill, OR—3 does not tell the host, so the host's program display can still show the previous program. And choosing the program the host already shows does nothing: for example, choosing Four Independent while your own preset (or no Patch) is loaded, or choosing the loaded Patch again after you have changed it. Use the Patch pill to reload a Patch.

MIDI Learn. OR—3 starts with no MIDI bindings: you choose what each controller drives. Every control on the face can be learned, and so can the Perform moves and stepping through Patches. The header **Rec** cannot be learned (see "Recording your output").

Learn mode. Turn on the **Learn** switch in the header, between the OR—3 wordmark and **Patch**, then tap or click any control to open its Learn menu. Nothing plays, records or changes while Learn mode is on: a tap on Rec opens Rec's Learn menu and does not record. On the reel, the **More** pill and the **Patch** pill, it opens the list of what can be learned there (**Reverse**, **Undo** and **Clear deck**; the Perform moves; **Next Patch** and **Previous Patch**): choose one for its Learn menu. Controls that cannot be learned, such as the wordmark, **I/O**, the header **Rec** and the mod slots' wave icons, are dimmed and do nothing. Learn mode stays on after a binding, so you can map one control after another, and controllers that are already bound keep working. Turn the switch off, or close OR—3′s window, to leave Learn mode. On the iPad this is how you learn: touching and holding a control does not open a Learn menu. On the Mac, the right-click menus below work as before, with Learn mode on or off.

Outside Learn mode, the Learn menu opens here:

- **Knobs** (each deck's Length, Speed, Shift, Character, Pan, Input send, Level and Feedback; Reverb and Mix; a mod slot's Rate and Shape) and the **Free**/**Sync** pill: right-click or Ctrl-click the control. A mod slot's Rate knob learns Rate in Free and the note division in Sync.
- **Play/Stop** and **Rec**: right-click or Ctrl-click the pill. A left click still plays, records and holds to clear.
- **Source** and the **mode chip**: choose **MIDI Learn…**, the last row of the Source menu or the Mode menu.
- **Reverse**, **Undo** and **Clear deck**: choose **MIDI Learn…** in the deck menu (right-click the reel), then the one to learn.
- **Random** and **Freeze**: right-click or Ctrl-click the pill. For the other Perform moves, choose **MIDI Learn…** at the bottom of the More menu, then the move.
- **Next Patch** and **Previous Patch**: right-click or Ctrl-click the Patch pill. They step through the same list as Program Change and wrap round at both ends.

The Learn menu offers:

- **MIDI Learn**: the control waits for the next MIDI control you move and binds it. While it waits, it shows **Learning…** under or above it; choose **Abort MIDI Learn** in its menu, or press Esc, to cancel. When the learn succeeds, the control shows its new source (for example **CC 20** or **Note C3**) for two seconds; after that the source is named in the menu's **Clear MIDI Learn** row.
- **Learn 14-bit CC** (knobs only): binds a pair of CCs, the high part on one CC and the low part on the CC 32 numbers above it, for a smoother sweep than the 128 steps of a single CC.
- **Learn (toggle)** and **Learn (momentary)** (Play/Stop, Rec, Freeze, Tape Stop and Reverse): see "Footswitches" below.
- **Assign to MIDI CC…**: type a CC number from 0 to 127 and press Return, to bind it without moving the controller.
- **Inverted** (once bound): runs the binding upside down, for a pedal that reads backwards or a footswitch that sends 0 when pressed.

- **MIDI Learn Mod 2 depth** and so on (on a knob that a mod slot is mapped to): binds a controller to that ring's depth.
- **Clear MIDI Learn**: removes this control's binding.
- **Clear all MIDI bindings**: removes every binding. Because bindings have no undo, the menu asks once more, with the number of bindings (for example **Clear all 12 MIDI bindings**): choose it to confirm, or **Keep bindings** to leave them.

Knobs and choices bind to a CC, a 14-bit CC pair, pitch bend or aftertouch. Buttons bind to a CC or a note. A note never binds to a knob and never plays pitch. One MIDI source drives one control: learning a source that already drives another control moves it to the new one. MIDI clock, transport messages and Program Change are never learned. Bindings respond on every MIDI channel. Closing OR—3′s window cancels a learn that is waiting.

Footswitches. Learn a footswitch, as a CC or a note, on Rec, Play/Stop, Freeze, Tape Stop or Reverse, and choose how it behaves:

- **Learn (toggle)**: each press acts once and the release does nothing. With a footswitch that springs back, one press on Rec punches in and the next punches out, exactly like clicking Rec.
- **Learn (momentary)**: the control follows the pedal: pressing acts and releasing acts again. Hold Rec to overdub for as long as the pedal is down, or hold Tape Stop to brake and let go to spin back up. Choose momentary for a latching footswitch too, so that each press switches.

The one-shot moves (Random, Mutate, Realign, Reverse All, Clear All, Undo, Clear deck, Next Patch and Previous Patch) act once on each press. From MIDI, Clear All and Clear deck act at once, without the hold the face asks for: pressing the footswitch is the deliberate act, and each deck's Undo still brings its loop back.

MIDI and automation. When a MIDI controller and host automation move the same control, the later one wins: a controller bound to an automated control will fight the automation. MIDI moves reach your host as ordinary parameter changes, so a host can record them as automation. Moving a controller on a knob that is gliding after a Patch load or a Random stops that knob's glide at once.

Your bindings, including toggle or momentary and Inverted, are saved with your host session. They are not stored in presets: loading a Patch or receiving a Program Change never changes them.

Which formats receive MIDI.

Format	Receives MIDI notes and CC	Program Change	MIDI clock
AU (`aumf`, a MIDI-controlled effect)	yes: Logic Pro delivers MIDI when OR—3 sits in a Software Instrument track's instrument slot	MIDI Program Change; the ten Patches are also the Audio Unit's factory presets	no: follows the host's tempo and transport
VST3	yes	the host's program list of the ten Patches (programs 0 to 9); whether a Live clip's Program Change reaches it is not yet verified	no: VST3 cannot carry MIDI clock; follows the host's tempo and transport
CLAP	yes	MIDI Program Change	no: follows the host's tempo and transport
Standalone	yes, once you enable a MIDI input in Settings	MIDI Program Change	yes: 24 pulses per quarter note, with Start, Stop, Continue and Song Position

Logic Pro. OR—3's Audio Unit is a MIDI-controlled effect, not a plain audio effect, so Logic does deliver MIDI to it. Create a Software Instrument track and, in its instrument slot, choose **AU MIDI-controlled Effects → Organismi Instruments → OR—3**. Then, in the plug-in window's header, set **Side Chain** to the track whose audio OR—3 should process. The MIDI regions on the instrument track, and the controller you play into it, now reach OR—3. For audio without MIDI, see "Using OR—3 in Logic Pro".

The iPad. The OR—3 app on the iPad listens to every MIDI controller you connect over USB, with no setup. It also shows up to other apps as a MIDI destination named **OR-3**, so a sequencer or a controller app on the same iPad can play it. Some apps both publish their own MIDI source and send to **OR-3**; with both connected, OR—3 receives every note and controller message twice. If that happens, connect the app one way only, not both.

The Standalone app. The Standalone app on the Mac does not open MIDI inputs by itself. Open the Settings panel with **I/O**, click the **Audio device** row, and enable the MIDI inputs OR—3 should listen to (see "The Standalone app and Settings").

The Standalone app and Settings

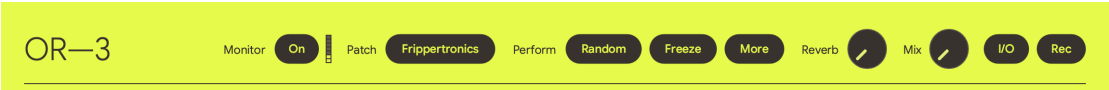


Figure 7: The Standalone header with the Monitor group

The Standalone app has the same face as the plug-ins, plus the **Monitor** group in its header.

Monitor. The **On**/**Off** pill switches whether OR—3's sound reaches your speakers or headphones. It is **Off** every time the app starts, so a microphone and speakers in the same room cannot howl the moment you open the app. Click it to read **On**. The short meter beside it shows the level of the incoming signal. If a microphone and speakers share a room, use headphones: feedback loops can sustain a howl.

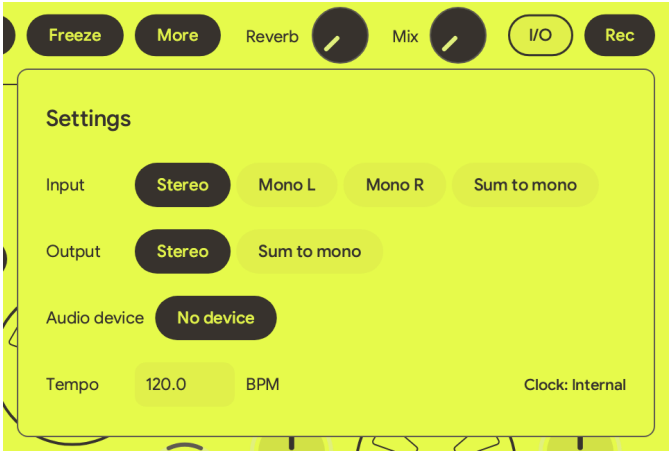


Figure 8: The Settings panel in the Standalone app

Settings. Click **I/O** to open the Settings panel. Click outside it, press Esc, or click I/O again to close it.

- **Input**: **Stereo**, **Mono L**, **Mono R** or **Sum to mono**, for how OR—3 takes its input.
- **Output**: **Stereo** or **Sum to mono**.
- On a mono track, both rows give way to one sentence: **Mono track. OR—3 records and plays this track's single channel. Pan and stereo width need a stereo track.**
- On a Mono→Stereo track, the Input row reads **Mono input feeds both channels.** and the Output row stays live.

In the Standalone app, a one-channel input, such as a built-in microphone, works the same way as a Mono→Stereo track.

The Input and Output choices are saved with your session. They are not stored in presets and cannot be automated.

The Standalone app's Settings panel has two more rows:

- **Audio device** shows the current audio device. Click it to open the audio and MIDI settings, where you choose the audio device, its sample rate and buffer size, and enable the MIDI inputs OR—3 should listen to. The Standalone app does not open MIDI inputs by itself: enable a MIDI input here before you use a MIDI controller or MIDI clock.
- **Tempo** sets the app's own tempo, from 20 to 999 BPM (120 by default), used by Synced decks when no MIDI clock arrives. Type a value and press Return.

When you close the Standalone app, it saves its state and restores it the next time it starts.

The iPad app. The OR—3 app on the iPad has the same face and the same Monitor group, with a few differences:

- **The first start.** The very first time the app opens it shows an introduction: the microphone, why Monitor starts off, where takes go, and Keep awake. Tap **Start playing** to close it. OR—3 does not ask for the microphone until then: tap the **Microphone** bar at the top of the face to allow it. iPadOS asks only once. To see the introduction again, open **I/O** and tap **Show** in the **Introduction** row.
- **Audio device** shows the current input and output, for example **iPad Microphone / Speaker**, or the name of an audio interface. AirPods and other Bluetooth headphones play OR—3 at full quality; OR—3 records from the iPad's microphone or your interface, never from a Bluetooth headset's microphone.
- **Tempo**: tap the field and a number keypad opens. Type a tempo from 20 to 999 BPM and tap Return to set it; closing the keypad any other way leaves the tempo as it was.
- **Keep awake**: **Off** by default. Turn it **On** to keep the screen from locking while you play. OR—3 remembers the choice.

- **In the background.** OR—3 keeps playing when you switch to another app or lock the screen, as long as a deck plays or records, a take records or Monitor is on. When all the decks are stopped, Monitor is off and no take is running, OR—3 lets go of the audio so that other apps can use it; MIDI does not wake it then. When you come back, it picks the audio up again silently, with the decks stopped and Monitor off, as you left them.
- **Your tape is kept.** The app saves its state, the tape on every deck included, whenever it goes to the background. If iPadOS closes it, or you swipe it away, it reopens with every deck holding its tape, stopped.

Known issues

These are the limits of this release that we know about.

- **This release's final build was not tested by hand.** On the Mac, the 1.2.0 build has to pass OR—3′s automated test suites and automated plug-in validation (auval, pluginval and clap-validator) before it is packaged. Nobody tried it by hand in a host, in the Standalone app or through the installer, on the Mac or on the iPad. Where an item below says what an earlier version or a development build showed, it says so.
- **The recorder changes in this release were not checked by hand.** Safer header writes, safer file handling, **Full** on a full disk and **Export loop…** are covered by OR—3′s automated tests and by tests on real disks.
- **The output recorder, Rec during Freeze and Mono→Stereo were not checked by hand with this release's final build.** They are covered by OR—3′s automated test suites and the plug-in validators.
- **Reaper and Bitwig are not tested in this release.** OR—3 may work in other hosts, but that is not verified.
- **Ableton Live is not tested with this release's final build**, as a VST3 or as an Audio Unit. Whether choosing a program in Live's program list loads a Patch, and whether a Program Change from a Live clip reaches the VST3, is not verified.
- **Saving and reopening a Live Set with tape on the decks is not tested.** The Live version available for testing could not save. Saving and reopening a session with four full decks was checked with OR—3 1.1′s Audio Unit in Logic Pro, and is covered by OR—3′s own state tests.
- **The Standalone app is not tested by hand with this release's final build.** Choosing the audio device and MIDI inputs, restoring its state when it starts again, the microphone permission prompt and its icon in the Dock and Finder were not checked on screen, and the app was not run under Rosetta.
- **MIDI from a controller is not tested in a Mac host with this release's final build.** MIDI Learn, Learn mode, footswitches and a Program Change from a Logic Pro region were not checked by hand.
- **Synced decks and MIDI clock are not tested by hand with this release's final build.** Following a host's cycle or loop, a playhead that jumps or relocates, and MIDI clock in the Standalone app are covered by OR—3′s automated tests only.
- **The nine modes were not judged by ear with this release's final build.** Click-free mode switching and the feedback safety limits are covered by OR—3′s automated tests; the sound of each mode was not listened to with this build.
- **CPU use is not measured.** The host's CPU meter was not read with all four decks overdubbing, at 48 kHz or at 192 kHz, in Logic Pro or in Live, and CPU use on the iPad was not measured.
- **The installer was not tested by hand with this release.** OR—3 1.1′s installer was tested on one Mac, in its main account, running macOS 26. Gatekeeper on a downloaded copy in a new user account, the Customize choices, the removal steps followed by a reinstall, macOS 12 itself and an Intel Mac have never been tested. Every program in the installer is built for Apple silicon and Intel and for macOS 12 or later, which is checked automatically. The Intel code was not run under Rosetta.

- **In Logic Pro, OR—3 on an audio track needs the track's Input Monitoring on.** On a regular audio track, Logic gives OR—3 the live input, and keeps it running while the transport is stopped, only when the track's Input Monitoring button (I) is on; Record Enable (R) can stay off. With I off, the decks fall silent when Logic stops, and Rec and Play/Stop do nothing until Logic plays again. To capture OR—3′s output, press Rec in the header (see "Recording your output" in the manual). To get the audio onto a track in your project, use File → Bounce → Project or Section with Mode set to Realtime, or the Aux and bus recipe in "Using OR—3 in Logic Pro". The waiting hint can show only while Logic renders the track, because Logic does not run the plug-ins of a track that is not live while it is stopped. For the same reason, a reopened project can show OR—3′s decks empty until the track is live: the tape is saved in the project and appears then.
- **Your host's program display can be out of date.** When you load a Patch from the Patch pill, OR—3 does not tell the host, so the host's program menu can still show the previous program.
- **Choosing the program your host already shows does nothing.** For example, choosing Four Independent while your own preset (or no Patch) is loaded, or choosing the loaded Patch again after you have changed it. Use the Patch pill to reload a Patch.
- **A first recording pass that changes direction can keep a click.** If a deck's tape turns round while you record its first pass (Speed turned through the stop into reverse, or Reverse chosen, before you close the loop), the loop can keep a click where the tape turned. Record a deck's first pass in one direction. Overdubs, and loops that play backwards, are click-free.
- **The editor's frame-time budget has not been measured.** The time the face takes to draw each frame is not yet known.
- **OR—3 1.2.0 for iPad was not tested on an iPad.** The release build was never installed on one. Development builds were tried on one iPad (iPad Pro 11-inch, 3rd generation, M1) in AUM at 48 kHz: four decks kept their tape through an AUM session save, a force-quit of AUM and reopening the session; four OR—3 instances fit with 40 seconds of tape each; and touch at AUM's smallest window size, a second finger never spoiling a gesture, the **Learn** switch (in AUM and in the OR—3 app) and typing preset names and CC numbers worked. Nothing in the items below was ever tried on an iPad, with any build.
- **Only AUM was tested on the iPad.** GarageBand, Logic Pro for iPad, Cubasis and Loopy Pro were not tested. OR—3 may work in other iPad hosts, but that is not verified.
- **AUM window sizes and Synced decks in AUM were not checked.** OR—3′s face was used only at AUM's smallest window size. The other window sizes, recording and playing with OR—3′s window closed, and Synced decks following AUM's tempo and transport were never checked on an iPad.
- **Memory was measured on one iPad, in AUM, at 48 kHz only.** How many OR—3 instances fit on other iPads, at 44.1, 96 or 192 kHz, in other hosts, or with iPadOS's larger memory allowance for plug-ins, was not measured. The **No memory for tape** notice was never seen on an iPad; it is covered by tests on the Mac.
- **The share sheet was never tried on an iPad**, over AUM or in the OR—3 app: sharing a take or an exported loop from the header Rec or the reel, cancelling it, and saving to Files from it.
- **Playing in the background was never tried on an iPad.** That a loop keeps sounding while you use another app, that OR—3 lets go of the audio when it is idle, and that MIDI from another app does not wake it then, are covered by tests on the Mac only.
- **Keeping the tape when the app is closed was never tried on an iPad.** That every deck comes back with its tape after you swipe the OR—3 app away, or after iPadOS closes it in the background, also with a large save, is covered by tests on the Mac only.
- **AirPods and other Bluetooth headphones were never tried.** That they play OR—3 at full quality, that Settings names them, and that a saved tape comes back with its full top end while they are connected were not checked.
- **External MIDI in the OR—3 app was never tried on an iPad**: a USB controller, and another app sending to the **OR-3** MIDI input.

- **The first-start introduction was never seen on an iPad.** That it shows on a fresh install before any microphone prompt was not checked.
- **Takes in Files were never checked on an iPad.** That takes from the app, and takes moved from AUM, show up in **Files › On My iPad › OR-3 › Takes** without restarting anything was not checked.
- **The takes list was never tried on an iPad**: opening it with many takes (up to 512), and Play, Share…, Delete and the preview with Monitor off, by touch.
- **Export loop… was never tried on an iPad**, in the app or in AUM, including closing OR—3′s window in AUM while a loop is being exported.
- **The header Rec was never tried by touch on an iPad**: a tap starting or stopping a take when you lift your finger, and a hold opening its menu.
- **The Tempo field and Keep awake were never tried on an iPad**: typing a tempo with the iPad keyboard, and Keep awake staying on after the app restarts.
- **Presets shared between AUM and the app were never tried on an iPad**: a preset saved in one showing up in the other, **Import…** of a name that exists, and **Export…** through the share sheet.
- **A take left behind by a host that quit was never recovered on an iPad.** When a host quits while OR—3 records a take, the take should reach Files the next time the OR—3 app opens; that is covered by tests on the Mac only. Saving and restoring OR—3′s state through a host, as built for this release, was not tried on an iPad either.
- **Each deck holds 40 seconds of tape on the iPad** (20 seconds at 96 kHz, 10 seconds at 192 kHz), against 60 seconds on the Mac. A session whose tape is longer reopens with **Tape shortened** on the decks it had to cut. The 96 and 192 kHz tape lengths and the **Tape shortened** notice were never seen on an iPad.
- **On the iPad the reel's first-pass arc stops at two thirds of a turn.** While a deck records its first pass, the arc round its reel fills over 60 seconds, as on the Mac; on the iPad a first pass ends at 40 seconds, so the arc stops there.
- **One finger at a time on the iPad.** A second finger is ignored while the first is on a control, so you cannot turn two knobs at once.

Third-party software

OR—3 contains the following third-party components, each used under its own licence. Their copyright holders keep their rights.

JUCE 8.0.16 (Raw Material Software Limited). The plug-in wrapper. Used under the JUCE 8 End User Licence Agreement: https://juce.com/legal/juce-8-licence/

Skia (Google LLC). 2D graphics. BSD-3-Clause licence.

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libFLAC - Free Lossless Audio Codec library

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- **farbot** (Fabian Renn): real-time-safe containers.
- **r8brain-free-src** (Aleksey Vaneev): sample-rate conversion of saved tape when a session reopens at a different sample rate.
- **VST3 SDK** (Steinberg Media Technologies GmbH), included in JUCE: the VST3 plug-in format.
- **Mutable Instruments Clouds** (Emilie Gillet): the topology of the reverb's pitch shifter was studied from the Clouds pitch shifter and re-implemented for OR—3.

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