DPAUL SOFTWARE

DP EVOLUTION

A browser-based polyphonic synthesizer, nine-voice drum machine and step sequencer. No install, no plugins — it runs in a tab.

VERSION 1.2 · USER MANUAL
BROWSER · MAC APP

Contents

SECTION 01

Quick Start

Six steps to a working track.

1. Click anywhere on the panel first. Browsers keep audio muted until you interact with the page, so the very first click is what wakes the engine up.
2. Click squares in the step grid to program a drum pattern — kick on steps 1 and 5, hat on every step is a fine place to begin.
3. Hit `PLAY / STOP` and set the tempo with the `BPM` slider.
4. Play the keyboard with the mouse, or plug in a USB MIDI controller and play that instead.
5. Turn on `ARP HOLD`, click three or four keys to stack a chord, then turn on `ARP ON` and choose a pattern.
6. Set the arpeggiator `RATE` to something other than 1/8 so the arp and the drums move at different speeds.

SECTION 02

Transport & Tempo

`PLAY / STOP`
: Starts and stops the drum sequencer. The arpeggiator has its own transport — see section 05 — so the two can run independently.

`BPM`
: 40 to 220. This is the master clock: the drum grid, the arpeggiator and the tempo-synced delays all derive their timing from it.

`STEPS  8 / 16`
: Pattern length. Switching to 16 gives you a full bar of sixteenth notes; 8 keeps things tight and loopy.

`NOTE LATCH`
: The same control as `ARP HOLD` in the arpeggiator row — either button toggles it. Notes you play stay held until you turn it off.

`EXPORT DRUM WAV`
: Renders the current drum pattern to a downloadable audio file.

SECTION 03

The Keyboard

Thirty-seven keys spanning C2 to C5. Click them with the mouse, or connect a USB MIDI keyboard — the `MIDI` LED in the header lights up and the device name appears next to it when one is detected. The note you are playing is displayed above the keys.

PITCH BEND RIBBON

The strip to the left of the keyboard bends pitch as you slide along it. Unlike a sprung pitch wheel it stays wherever you release it, so you can park a bend and keep playing against it. Slide it back to the centre mark to return to normal tuning.

OCTAVE

The `OCTAVE` panel to the right shifts everything up or down, across a range of −2 to +2. This applies to the live keyboard, the arpeggiator and the melodic sequencer row alike.

SECTION 04

Drum Sequencer

Nine tracks down the left, your chosen number of steps across. Click a square to switch that hit on or off; click it again to remove it. The playhead lights each column as it passes.

THE EIGHT DRUM VOICES

Kick, Snare, Hat, Tom, Rim, Shaker, Clap and Crash. Each has an `M` button beside its name that mutes the track without erasing anything, so you can drop parts in and out while the pattern runs.

THE SYNTH ROW

The ninth row, coloured green, is melodic rather than percussive. Every step in it carries its own note dropdown, and choosing OFF leaves a rest. Program a bassline here and it plays in lockstep with the drums.

> WORTH KNOWING
>
> The synth row runs through its own engine and its own effects sends, set in the BASS FX & ENG strip directly beneath the grid. It is deliberately independent of the live keyboard sound, so your bassline does not change when you reach for the engine buttons in the header.

SECTION 05

Arpeggiator

Turns held notes into a moving pattern.

BUILDING A CHORD

Switch on `ARP HOLD` and click keys one at a time — each one is added to the chord instead of replacing the last. Both white and black keys feed the arpeggiator. Turning HOLD back off clears the stack and returns to whatever you are physically holding down.

RUNNING IT

Switch on `ARP ON` and the held notes start playing themselves. This is independent of the drum transport — you do not need `PLAY / STOP` engaged for the arp to run, and stopping the drums does not stop the arp.

PATTERNS

`UP`
: Lowest note to highest, then back to the bottom.

`DOWN`
: Highest note to lowest.

`UP / DOWN`
: Climbs, then descends without repeating the top and bottom notes. Needs three or more notes to differ from UP.

`RANDOM`
: Picks freely from the held notes each step.

With only one note held, all four patterns sound identical — the differences only appear once you have two or more notes stacked.

SECTION 06

Arpeggiator Rate

New in version 1.2.

The `RATE` knob sets how fast the arpeggiator steps through the notes you are holding. It runs on its own clock, so changing it does nothing to the drum sequencer — the drums stay exactly where they are while the arp speeds up or slows down around them.

Drag the knob for large jumps, or use the `▼` and `▲` buttons beside it to move one division at a time. The gold readout shows the current division; the small caption underneath tells you how the arp currently compares to the drum grid.

THE NINE DIVISIONS

SETTING	NOTE LENGTH	AGAINST THE DRUMS	AT 120 BPM
1/1	4 beats	8× slower	2.00 s per note
1/2	2 beats	4× slower	1.00 s per note
1/4	1 beat	2× slower	0.50 s per note
1/4T	2/3 beat	1.33× slower	0.33 s per note
1/8	1/2 beat	Same as drums — default	0.25 s per note
1/8T	1/3 beat	1.5× faster	0.17 s per note
1/16	1/4 beat	2× faster	0.125 s per note
1/16T	1/6 beat	3× faster	0.08 s per note
1/32	1/8 beat	4× faster	0.06 s per note

The drum sequencer is fixed at 1/8, which is why that setting is the one marked as matching. The three settings ending in T are triplets, and they will not line up with the drum grid on every beat — that push and pull against the pattern is the point of them.

> TRY THIS
>
> Program a plain 1/8 drum pattern, hold a four-note chord with ARP HOLD, set the pattern to UP / DOWN and the rate to 1/32. The arp skitters four times faster than the kit underneath it. Now walk the rate back down to 1/2 and the same chord becomes slow held stabs over the identical beat.

Changing the rate while the arp is running takes effect on the next scheduled note, so you can sweep the knob live without the pattern glitching or restarting.

SECTION 07

Drum FX

Every drum voice gets three small knobs of its own, laid out under the sequencer:

`REV`
: How much of that drum is sent into the shared drum reverb.

`SHP`
: Shape and drive — grit, saturation and edge, applied to that voice alone.

`DLY`
: How much of that drum is sent into the tempo-synced drum delay.

All three start at zero on every voice, so nothing colours the kit until you turn something up. The reverb and delay are shared, which means the sends behave like a mixing desk: a little from several drums into the same space glues them together.

SECTION 08

Bass FX & Engine

This strip controls the green synth row of the sequencer and nothing else. It has its own engine buttons, plus its own `REV`, `SHP` and `DLY` knobs — the same three controls the drums get. Because it is separate from the live keyboard chain, you can have a filthy saturated bassline running under a clean lead without either affecting the other.

SECTION 09

Live Engines

The `LIVE ENGINE` buttons in the top right choose the sound of the keyboard and the arpeggiator.

`SuperSaw`
: Stacked detuned saws. Wide, bright and the natural choice for chords and pads.

`Moog Bass`
: Fat and round with a strong low end. Best played low and monophonically.

`FM Lead`
: Frequency modulation — metallic, bell-like and glassy, and it reacts strongly to the Detune knob.

SECTION 10

Filter Bank

Seven filter types. The four in orange are the classic shapes; the three in blue are EQ-style curves that boost or cut rather than remove.

`LP / HP / BP / NOTCH`
: Low pass removes highs, high pass removes lows, band pass keeps a slice around the cutoff, notch scoops that slice out.

`PEAK / LO SH / HI SH`
: Peaking and the two shelves. These use the `Gain` knob, which does nothing in the other four modes.

Beneath the buttons: `Cutoff` sweeps from 80 Hz to 14 kHz, `Reso` adds emphasis at the cutoff point, `Gain` runs from −18 to +18 dB, and `HP Side` is a separate high pass from 20 Hz to 2 kHz for thinning out the bottom end.

SECTION 11

Filter Mod

Two ways to make the filter move on its own.

LFO

Choose a shape — sine, square, triangle or saw — then set `LFO Rate` from a slow 0.05 Hz crawl up to 20 Hz, and dial in how far it travels with `LFO Depth`. Depth starts at zero, so nothing moves until you raise it.

FILTER ENVELOPE

`Env Amt` sets how far the cutoff jumps when a note is struck, and `Env Dec` how quickly it falls back, from a 20 ms snap to a three-second sweep. Together they produce the classic plucked and squelchy filter movements.

SECTION 12

Envelope & Colour

Attack
: How long a note takes to reach full volume — 1 ms for an instant hit, up to 1.5 s for a slow swell.

Release
: How long it takes to fade after you let go, from 0.05 s to 4 s.

Drive
: Waveshaping saturation. Adds harmonics and weight; push it hard for distortion.

Detune
: Up to 60 cents of spread between the stacked oscillators. Widens SuperSaw considerably and changes the character of FM Lead entirely.

SECTION 13

Main FX

These sit at the end of the synth chain and affect the keyboard and the arpeggiator together.

Chorus
: Modulated thickening. A little adds motion; a lot swims.

Echo
: A tempo-synced delay — it retimes itself whenever you move the BPM slider.

Room
: Reverb, from a small ambience to a large tail.

SECTION 14

Mixer & Scope

The `MIXER` panel carries master levels for `SYNTH` and `DRUMS` in orange, and individual trims for kick, snare and hat marked `BD`, `SD` and `CH`.

Beside it, the oscilloscope draws the live output waveform. The row of small LEDs across it shows how many voices are sounding at once, and the label on the right names the engine currently selected — useful for seeing at a glance what Drive and the filter are actually doing to the shape of the sound.

SECTION 15

Getting Sound Out

EXPORTING THE DRUMS

`EXPORT DRUM WAV` renders the current drum pattern to an audio file and downloads it, ready to drop straight into a project. The pattern is captured as programmed, including your mutes and the per-drum FX settings.

RECORDING EVERYTHING

To capture the synth as well, route the browser's audio into a DAW using a virtual audio driver. BlackHole is free on macOS: install it, set it as the system output, and add it as an input in Logic, Ableton or whatever you use. From there the whole instrument records like any other source.

MIDI IN

Any class-compliant USB MIDI keyboard should be recognised automatically. If the `MIDI` LED stays dark, plug the device in before opening the page and reload — browsers scan for MIDI devices when the page initialises.

BROWSER OR MAC APP

Everything described here behaves identically in a browser tab and in the standalone Mac app. Pick whichever suits how you work.

> **IF YOU GET NO SOUND**
>
> Click somewhere on the panel first. Browsers block audio until the page has been interacted with, and every control here calls the engine awake on its first click — but a page that has just loaded and been left alone stays silent by design.