

Dave Smith Mopho | £280

Some people say size isn't everything, and they could be right in this case. **Marc '01'** uncovers some serious bass inside this tiny little yellow synth



ON THE DVD

WHAT IS IT?

A MIDI-controlled monophonic analogue synthesizer in a box.

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HIGHLIGHTS

- 1 Fat analogue oscillators with thick and juicy subs
- 2 The funny/ugly paintjob
- 3 One finger playback with the 'Push It' button



The analogue renaissance continues in full force, thanks to the latest offering from synth legend Dave Smith.

Last year he surprised everyone with the sudden launch of the Prophet 08, so he had to debunk the rumors that the next product on the way would be a modern take on his classic, the SC Pro-One.

Well, as it turns out, there was a bit of truth in the old Pro-One story after all. In simple terms, the tiny yellow Mopho could be described as a single

voice from the Prophet 08, but it doesn't end there. Luckily for us, Dave has gone and tricked out his latest creation with a little something extra. Some critics have commented that the DCOs (Digitally Controlled Oscillators) in the Prophet 08 (and the Evolver series) haven't really got enough bass in them to create a truly weighty sound. To counter this, the Mopho is the first DSI synth to benefit from the inclusion of sub oscillators to beef up the sound.

The concept is not new, as many classic '80s synths, including the

SH-101, used sub oscillators to good effect, so it's great to hear them back in action once again.

Citrus burst

From the first sighting, it's hard to ignore the bright orange and yellow paint job. It's definitely a love-it-or-hate-it kind of design that's reminiscent of the Waldorf Microwave XT, with its pattern of radiating concentric circles.

It has a simple layout with two main rows of knobs in the center and an LCD display above them. The top row of knobs can be assigned to any parameters for editing or real-time tweaking, these can be changed at any time, and the most useful combination can be stored along with a program. The lower row are fixed to the most commonly used synth functions, namely filter cutoff, resonance and envelope attack plus a combined decay/release knob on the end.

The knobs are actually dented encoders that step through the values incrementally with a definite notch. On the upside, this makes them very accurate and it's very easy to set precise values. The downside is that it takes more than a couple of turns to sweep the filter cutoff through its entire

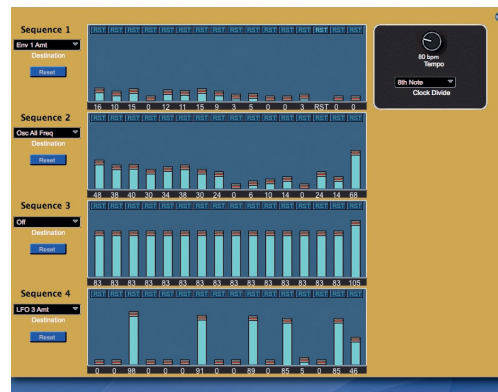


Sequencing Software

The absence of a keyboard doesn't hold the little MoPho back as it makes up for it with a nifty four track sequencer instead. Each of these has 16 steps which can modulate a healthy selection of parameters which can lead to some interesting and bizarre sounding results.

Some of the built in demo sequences can instil so much tonal change between each step that it sounds like there's way more than a just single mono line. The sequencer

becomes a lot more fun through the editor, and has its own floating window which can be opened alongside the main one. This speeds up the process exponentially and invites you to experiment more, jumping between with the vast amount of modulation options and tweaking the knobs in real time. It's a bit of a shame that you can't map the steps onto a MIDI controller. Maybe this can be addressed in a software update, it wouldn't hurt – right, Dave?



range. They don't have any sort of 'acceleration' either, so turning them faster doesn't speed things up. Acceptable for programming situations, but not good for performance tweaking.

Over on the left-hand side we also find a knob which sets global pitch value and above it are a pair of tiny buttons and another encoder for shuttling through the banks of presets.

week. To get the full effect of the editor, it's best to plug both MIDI In and Out so that the editor can receive the current program and update its graphical view with the new settings.

You can still program the Mopho using just the MIDI In, but the virtual knobs won't update.

One thing to be aware of is that the editor could

The fact is that the MoPho has plenty of speaker-shaking bass, straight out of the box

The Mopho comes loaded with three banks and a total of 384 programs. These are mostly variations on the old classics such as screaming sync leads, super-wide detuned pads, analogue percussion and fat basses. The other's a bit on the crude and crunchy side, so to get some useable new sounds, you will definitely need to get stuck into some programming.

Get stuck in

Admittedly the Mopho's interface is limited and too slow for in-depth programming. The manual actually states this as fact and points us in the direction of the software editor. I say this because it doesn't come on a CD in the box, but has to be downloaded from the web.

Sound Tower (who also made the editors for the Evolver series) have done a fine job at presenting all the main synth parameters on one page, ready to tweak. I tested out the editor on a MacBook and it worked well with only one incident of crashing in a whole

only transmit the changes to the Mopho when I had its MIDI channel selected in Logic.

Analord insides

The analogue guts are the life and soul of this synth. As mentioned previously, the architecture is very similar to the Prophet 08. This consists of dual oscillators which offer saw, triangle, saw-triangle mix and square with pulse width modulation. The DCO nature keeps the pitch and tuning rock-solid, so to introduce a bit of analogue drift there is a 'Slop' control, which stays safely on the subtle (i.e. usable) side.

Each oscillator has its own sub oscillator to dial in some extra fatness. Sub one is one octave below its fundamental, and Sub two sits two octaves below. These are indispensable for getting the girth into the bass end and, thanks to the nature of the DCOs, they are supremely tight and punchy and blend perfectly into the mix. There's no hype here, the fact is the Mopho has plenty of speaker-shaking bass, straight out of the box.

The next little trick on offer lies in the audio feedback circuit. This is similar to the old Minimoog jack lead trick whereby a little bit of the output

SPECS

Two oscillators

Oscillator Shapes: Triangle, Saw, Square with PWM modulation

Two sub-octave generators (one octave down and two octaves down)

One classic Curtis low-pass filter (switchable 2- or 4-pole)

Analog VCAs

Envelope generators:

Three ADSR plus delay and repeat

LFOs: Four with MIDI clock sync and key trigger sync

LFO Shapes: Triangle, Saw, Reverse Saw, Square, Random

LFO Speed: 8Hz (30 secs) to 261Hz

External audio input with feedback

Four assignable performance controls per program

Modulation Matrix:

22 sources and 51 destinations

Gated 16 x 4 step sequencer (one sequence per program)

Arpeggiator

Software editor for Mac OS

and Windows

Presets:

3 banks and 384 programs

MIDI: In + Out/Thru

Audio In: 1 x ¼" Jack

Audio Out: 2 x ¼" Jack,

Headphone Out

Dimensions

190 x 127 x 35mm

Weight

0.7kg



gets mixed back into the pre-filter mix to thicken it up and add grit. You set this with the white Audio-In knob on the top panel, and in practise, this is a bit hit and miss. There was a very fine line between nothing and overdone with a lot of sounds, but occasionally it was possible to find a sweet spot that added a nice effect to the overall tone.

Next in the chain is the low-pass filter, with selectable two and four pole designs. If you want screaming, ripping and lazer zaps, then it's four-pole all the way. For mellower sounds the two-pole will keep things tasteful.

Modulation is in plentiful supply, with twenty-two sources and around fifty-one destinations. These include three envelopes with delay and repeat loops, four LFOs and a four-part step sequencer. The LFOs can be free-running or clocked to MIDI for precise

synchronisation. The clocked rates go from 32 steps down to 1/16th. The waveforms on offer are the quintessential saw, reverse, square and triangle shapes and LFOs can be used to modulate each-others rates and amounts as standard.

MIDI Mopho

About half of the Mopho's parameters can be MIDI controlled, these are the mainly oscillator, envelope and filter functions. Surprisingly you can't access the LFOs rate or amount directly unless

you use one of the four general modulation slots. One slightly odd thing is that the filter cutoff is controlled with two different MIDI CC numbers, which have to be set in a certain way in order to be able to sweep the entire range.

Despite the minor MIDI grumbles, there's no denying that the Mopho has bags of charm and ass loads of bass. It sounds and behaves like a real analogue should. At this price, it's better that the sacrifices had to be made on the interface rather than the sound quality. If you fancy some real analogue bass on the cheap, or a truly portable synth for gigs, then this is an essential purchase. **FM**

ALTERNATIVES



MFB Synth II

£337

This dinky little analogue synth is just 30cm x 16cm and packs 29 knobs into its case for real-time tweaking. Plenty of scope for classic sounds with two LFOs, cross modulation and osc sync. How does patch memories, step sequencing and full MIDI control sound to you?

mfberlin.de



Waldorf Blofled

£299

A whole lot of synth in a small but beautifully formed white box. It's all digital inside though, with 16-parts multi-timbral virtual analogue and wavetable synthesis.

waldorfmusic.de

Pushing It!

Sitting there in the bottom right-hand corner, like the eye of the hurricane lies the ominous 'Push It' button. The mysterious little red switch kick starts the Mopho's sound engine when there's no keyboard handy. The multi-function button can be programmed uniquely for each patch and has several different applications. First off, it can trigger a specific MIDI

note for the duration it is held down. This is dead handy for auditioning presets and sounds, and since any MIDI note can be specified, you can set a note in the relevant octave for bass or lead

sounds to hear them in the proper context.

The alternative is the toggle mode, which holds the note until the button is pressed again. This suits drone and effect style sounds.

The magic button also works to trigger sequencer patches in the same way. Invaluable for live shows where you wouldn't want to drag along a keyboard just to trigger the MoPho.



FutureMusic **VERDICT**

BUILD

VALUE

EASE OF USE

VERSATILITY

RESULTS

Manuscript accepted:

You can't get a fatter analogue synth at this price, snap one up before they change their minds.

