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Issue 173
August 2017

The magazine for producers, engineers and recording musicians

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*Roundtrip latency was measured at 2.74ms, working at 96kHz with a 32 samples buffer on Logic Pro X, running on a Mac Pro and OS 10.11

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ANTHEM PUBLISHING PPA



It's now easier than ever to craft dynamic, impactful and pro-sounding beats. Whether you're constructing your loops using a DAW, or inventing rhythms in a live context using an all-in-one piece of hardware, such as Novation's Circuit or Akai's MPC Live, it really has never been simpler to get rhythm – even if your own internal sense of timing is unreliable at best.

Of course, sampling and in-the-box beat making has been part and parcel of dance music for decades. However, for rock and pop, there's the old argument that using a real drummer consistently yields the best results and that a digital alternative lacks personality.

But software in 2017 is getting increasingly clever at mimicking the behaviour of us erratic and often unpredictable human beings, with Logic's Drummer in particular being an almost-too-easy alternative to recruiting (and having to work with!) a real live drummer.

Our cover feature this issue delves into beat making, with hands-on tutorials showing you how to craft loops using software and hardware. We show you how to shake a stick at the best rhythmic tools available right now, with the ultimate aim of giving you the knowledge and context to make brilliant beats.

Elsewhere in this issue, we spend some time in the company of Bengie and Neil Arthur, whose vintage synth-heavy studio is an impressive sight to behold. We also have our usual wide-ranging reviews, educational content and a jam-packed DVD. I hope you enjoy the issue.

Andy Price Editor

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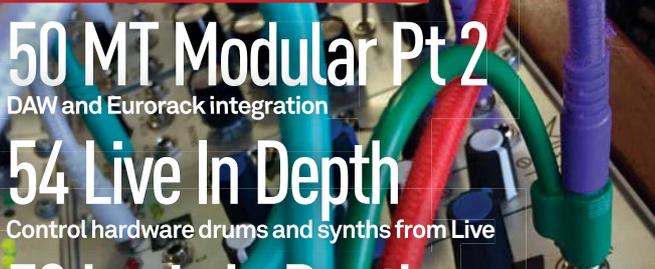


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All the latest happenings from the music-technology industry...

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SUMMER OF SYNTHS

IK Multimedia's Syntronik bundles 38 iconic sampled synths and string machines into one package. Sporting a new hybrid sample and modelling synthesis engine, impressive modelled effects and intriguing instrument features, IK boasts Syntronik offers 'the ultimate and best-sounding collection of vintage synthesisers to date'...

News of Syntronik has the synthier corners of our office twitching with anticipation – IK's new hybrid synth features 17 instruments, available as a collection or separately, with around 2,000 preset sounds; it's also utilising IK's new, and exclusive, DRIFT technology that accurately

reproduces the behaviour of oscillators from authentic hardware synths.

Here's the full list of the 38 vintage synthesisers modelled in Syntronik (deep breath): Modular Moog, Minimoog Model D, Moog Voyager, Moog Taurus I, Moog Taurus II, Moog Taurus 3, Polymoog, Moog Opus 3, Moog Rogue, Realistic Concertmate MG-1,

Multimoog, Micromoog, Moog Prodigy, Sequential Circuits Prophet-5, Sequential Circuits Prophet-10, ARP 2600, Oberheim SEM, Oberheim OB-X, Oberheim OB-Xa, Yamaha CS-80, Yamaha GX-1, Yamaha CS01-II, Yamaha SY99, Roland Juno-60, Roland Jupiter-8, Roland Jupiter-6, Roland Jupiter-4, Roland JX-10, Roland JX-8P, Roland JX-3P, Roland TB-303 Bassline, Alesis Andromeda, PPG Wave 2.3, ARP String Ensemble, Elka Rhapsody 490, Hohner String Performer, Roland RS-505 Paraphonic, Roland RS-09 Organ/Strings.

Syntronik should ship in July and will be priced at €299 (£260). As you can probably tell, we're very eager to get our paws on it, so will be bringing you a review ASAP. Read more at www.ikmultimedia.com. **MT**

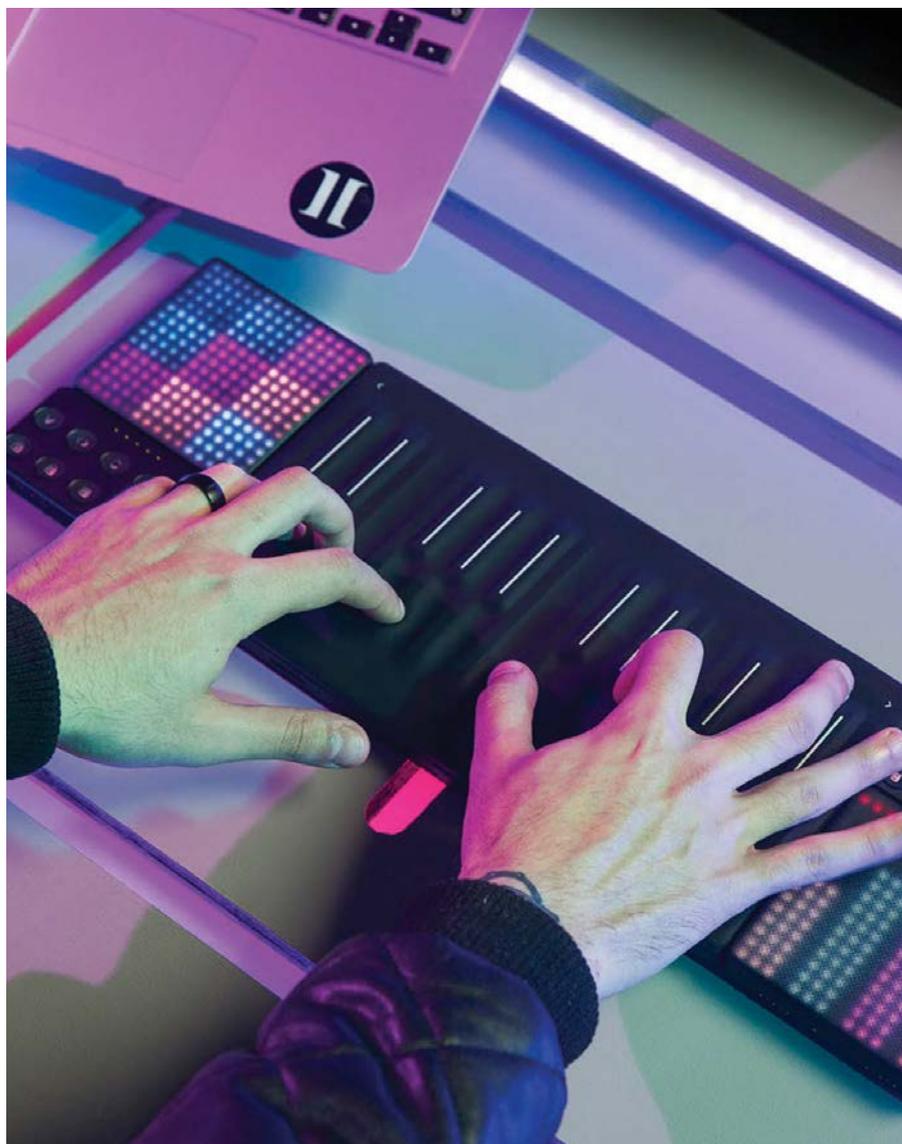
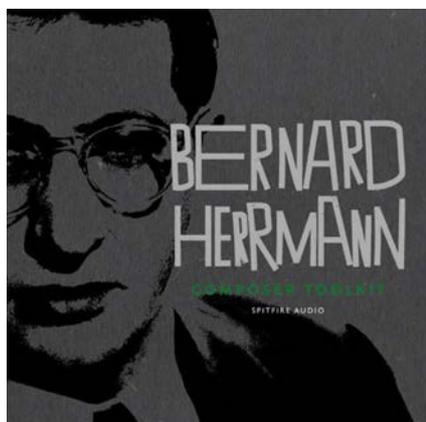
VERTIGO & GET IT

Spitfire's new Composer Toolkit library is inspired by Bernard 'Psycho' Herrmann

Spitfire Audio recently announced the imminent release of their newest Composer Toolkit, which is inspired by the iconic composer Bernard Herrmann. He's the composer behind some of the most iconic and classic film soundtracks ever, including *Citizen Kane*, *Taxi Driver* and the majority of Hitchcock's resonant scores (and yes, it was he who orchestrated the classic shower scene from *Psycho*).

This new Composer Toolkit was recorded at Studio 1 Air Lyndhurst by Simon Rhodes, whose previous work includes *Avatar*, *Grand Budapest Hotel*, *Spectre* and the *Harry Potter* franchise. The samples capture players playing in the same way that Herrmann would have conducted them, which, Spitfire tells us, is "boisterous, lively and upfront!".

So, if you want to add a touch of Hitchcockian menace to your recordings, this is the pack for you. The Bernard Herrmann Composer Toolkit is available now for £429 (\$499/€509). **MT**



BLOCK KEYS

ROLI launches a more portable, cheaper version of its pioneering Seaboard controller for the BLOCKS system

ROLI has certainly made a splash in the music-technology industry over the last few years. We can remember the Seaboard's launch very clearly, and we also recall our confusion as to whether a 'squidgy' keyboard could actually work as a viable replacement to traditional keys. Well, ROLI answered these concerns with aplomb – with the Seaboard RISE and GRAND both phenomenal feats of music technology. Now ROLI has revealed the Seaboard Block, a more affordable – and smaller – version of the Seaboard, which integrates seamlessly with ROLI's Lego-like modular BLOCKS system.

The Seaboard Block will fit in a backpack and also comes with a collection of bespoke

music software and a wide range of sounds. CEO of ROLI, Roland Lamb, says: "Music making will only begin to thrive in the digital age when electronic instruments are truly intuitive and can be played as expressively as any acoustic instrument. Seaboard Block is the culmination and convergence of our work at ROLI to create new instruments that are deeply emotive and easy to play."

"It's one of the most simultaneously accessible and expressive digital instruments ever made, and I can't wait to hear what people create with it."

The Seaboard Block is available now from the ROLI Store and via Sound Technology, and is priced at £279. Find out more at <http://roli.com/products/blocks>. **MT**



MT Cover Feature

MAKE BRILLIANT BEATS

You now have more options available to you for beat making than ever before. Here, we bring you the ultimate guide to making beats in 2017, with guides to programming 10 different genres, hands-on hardware, beat-making tutorials, sequencing tips, buyers guides and even ways to (kind of) cheat...

There's now an almost stupid amount of technology designed to help you make beats. Many DAWs offer pretty much everything you need, while dedicated hardware units from the likes of Akai, Teenage Engineering, Novation and Pioneer enable you to program rhythms without a computer in sight. For you computer users, there are Kontakt instruments, freeware plug-ins, virtual drum machines, and huge sound libraries with every drum beat ever made! There's a whole world of Eurorack/modular beats and even drum hardware that emulates drum software (we kid you not). So, there are hundreds of solutions in hardware and software, all designed to answer your beat-creation questions, and there's an explosion of genres out there, too, for

you to create beats for – with dance music fragmenting into a billion scenes that might be in vogue one day, out of the window the next.

If you're new to it all, or even a seasoned musician, this list of options can be mind boggling, so we've stripped it back to basics by offering this guide to all the routes there are for better beat creation. We have step-by-step guides to programming patterns for the main genres, workshops for hardware beat makers, buying guides to some of the best software and hardware currently out there, and plenty of advice to easier beat creation by sampling. So, without further ado, read on for all of your hardware and software programming needs, genre guides and better beat processing. In 10 pages' time, we guarantee you'll be a better beat creator... →

→ **Programming**

Whether you go hardware or software for your beat making, or a combination of the two, programming your beats can be a similar and logical process.

Hardware machines like those in our Magnificent 7 Hardware Beat Makers Buyer's Guide will often still use the XoX method favoured by the original Roland TR drum machines, where you program the beats over, say four bars, each with four beats, by simply filling in the gaps as the sequence cycles around or playing the notes in live. Choose your drum sound, a kick for example, and either play it or program in the beats step-by-step. Then there's the grid-based programming method, where you get a square set of maybe 4x4 pads to program with – Akai MPC users love the extra live feel of programming this way. Ableton Push and NI Maschine utilise this grid method using both hardware and software and very often, it's a combination that allows you a lot more flexibility over the sounds, so much so that whole tunes are very often just a few button presses away.

For the purposes of our programming tutorials, we're going to show how to program different genres in software (Ableton Live) but using similar principles to the methods above. The beats are shown on a grid, and cycle around two to four bars, with the different beats shown along the side. You can use these tutorials to program similar beats in either hardware or software, just by filling in the beats as shown, so they should work whatever your machine, hard or soft.

We've detailed how to program basic beats across 10 popular dance and urban genres, with house music getting four tutorials to itself, as it splinters almost daily into something new. We're supplying the very basic beats for you here and have used the

most popular 808 and 909 kits in Live, as they're everywhere. It is, of course, up to you to take these further – but hopefully, they'll give you a great starting point in whatever genre you make music in.

Swing, groove, velocity

We can't repeat it too much – but programming beats is not just about getting beats into the right slots. In fact, very often, it's about getting them into the (slightly) wrong slots. All drum machines, both hard and soft, tend to quantise beats unless you tell them not to, so this can result in the most rigid of beats – great if you're into stripped-back techno – but most genres benefit from at least a little live feel. On a very simple level, this might mean turning the quantise off or lessening its impact, but introducing

Most genres benefit from a little live feel – so introducing velocity changes into your programming will help your rhythms no end

velocity changes into your programming will help your rhythms no end. By default, your grid programming may give you the same velocity for each note input. With maximum quantise on and the same velocity on each beat, you are talking ultra-rigid beats. Even making the first kick of a loop slightly harder will help here, but introduce subtle changes to your snares and a flowing change of velocity to your hats and you will automatically make your groove feel more, well, groovy.

Talking of which, some DAWs come with special features that let you add swing to your beats (that is, a gentle lilt of the groove to make it instantly more like a human has played it). It might be done by selecting a simple groove-quantise value and applying it to your rigid beats. In Live's case (and

MAGNIFICENT SEVEN SOFTWARE BEAT MAKERS



IZOTOPE BREAK TWEAKER

Price **£189**

This drum software has almost become something of a legend, thanks to its innovative ways of beat production. It has a 2GB library (plus expansion packs at £30) and an engine to morph, create and mess with beats. We said: "Tweaking the presets or building kits and patterns from scratch are exciting ways to play with this heavyweight beat-sculpting and programming tool."

www.timespace.com



HEAVYOCITY DM-307

Price **\$299**

At the price, you'd expect power – and you get it. Heavyocity is known for its feature-packed collections and instruments, and this is no exception. Featuring 80 Kits, 1,200 tempo-sync'd loops and 250 multi-patches, there's a lot more than meets the eye/grid. We said: "DM-307 more than meets the levels of excellence we've come to expect from Heavyocity, and may well prove to be the company's finest and most flexible library to date."

www.heavyocity.com



ROB PAPEN PUNCH

Price **\$149**

Punch lets you create your own kits using either your sounds, Rob's sounds, or completely new sounds – as synthesised by the onboard filters and synth from Papen's own rather good collection of plug-in synths. We all know these synths to be the biggest out there and Punch follows that ethic by being one of the most flexible pieces of drum software on the market.

www.robpapen.com



SONIC ACADEMY KICK 2

Price **£49.95**

Don't be fooled by the name, as KICK 2 does (a bit) more than just kicks – but obviously does kicks incredibly well. You sculpt your own from groups of sub, kick and click samples and mangle them with onboard tube, compressor and drive options. We said: "A more refined palette of tools for fine-tuning your kicks and sounds, KICK 2 is an essential purchase for anyone writing music that's destined for the club."

www.sonicacademy.com



Authentic analog sound lives on UAD and Apollo.

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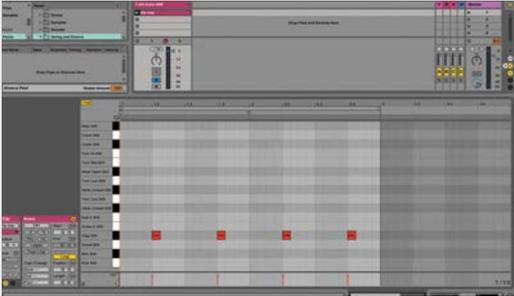
We're grateful for the journey of the past 30 years, and the accolades we've received. But our biggest reward is the music you make with KRK monitors...and we can hardly wait to hear what you will create, mix and master.



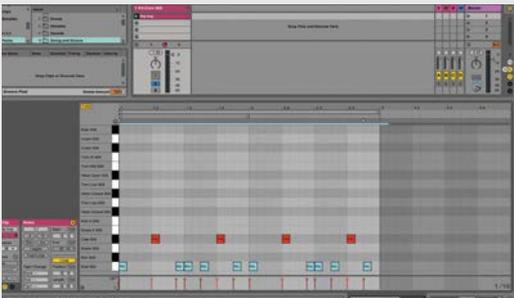
Optional protective grilles included

Tutorial 1 Programming hip-hop

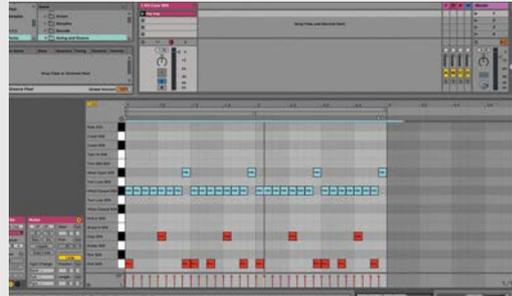
01 Like jungle and breakbeat, hip-hop is another beat sometimes best sampled, but programming it is just as easy. Take your tempo down to a cool 100 BPM and start with the snare on the 2nd and 4th beats.



02 Adding the kicks as so (at the start of beats 1 and 3, with three others mixed in) and you have the standard hip-hop beats that launched a million records.



03 Now draw in seven closed hats and an open hat over each of the two bars. This is pretty much it, but you can add anything else from here.



04 As with our grime tutorial, hip-hop could do with some swing being added. We're doing this tutorial with Ableton Live, which has its own groove templates, including hip-hop ones.



→ some hardware like the MPC) you can impose grooves from a groove pool or library onto clips, while in other software such as Logic, you can make a groove template from your favourite sampled groove and apply it to your programmed beats. Whatever you use, software or hardware, experiment with groove, swing and velocity for a human feel. Unless you are a robot. Or Kraftwerk.

Layer away

Eventually, you won't always get the beats you want with one kit or set of samples. Even in our genre

tutorials, we haven't been afraid to layer sounds to get more clout in the kick or more crispness in the snare, but layering drums does bring its own set of problems. Very often, frequencies will clash between, say, kicks, and you'll get a muddying of those bands. What you need to do is identify the component of the sound you want and then EQ or filter it in order to either emphasise it, or (often better) cut the offending clashed part of the other sound out completely. Since we're getting into the realms of EQing then, it's high time we covered processing your beats... →



SONIC CHARGE MICROTONIC

Price \$99

We couldn't place the Teenage Engineering PO-32 in the hardware category without including its new partner in crime. The two now link up so that sounds can be transferred between them, offering a distinctly 'tonic' experience on both. So despite the software being around for 14 years, its fully synthetic, no-samples formula is still winning it fans.

<https://soniccharge.com>



WAVE ALCHEMY REVOLUTION

Price £149

A Kontakt instrument with 14 classic drum machines to choose from and, importantly, every tone is covered by 41,000 samples. You get effects, 1,000 patterns and a great GUI packed with features. We concluded that: "If you like classic electronic drum sounds, then Revolution is the ultimate sampled-drum instrument."

www.wavealchemy.co.uk



XILS LAB STIX

Price €179

This is almost the best of the old, the best of the digital and the best of the new: one plug-in that utilises that XoX programming we discuss in the main text and combines it with a synthesis engine, sequencer, 2,000 presets (including 15 Wave Alchemy kits) and effects to make one of the most powerful drum apps going.

www.xils-lab.com

Tutorial 2 Programming trap

01 Trap starts off as one of the simplest of beats, with a kick at the start of the bar and a snare on the third beat of each bar and a tempo of 135 BPM. It couldn't get any easier.



02 As ever, it's the kick that defines things early on, though. Place another kick between beats 2 and 3 of the first and second bar and another on the offbeat of bar 2, as shown.



03 This gives the groove an almost swing-like nature. We've added a clap on the snare to give it a crisper edge, but the closed hats really define this beat.



04 They need to open with three quarter notes at the start of the first bar and then half notes. A real flourish comes at the end, where you can close with 1/8th or even 1/16th beats.



→ **Processing**

A complete guide to drum processing could fill a book or three, but there are some rules that can help your beats today. We've already covered some EQing, but some subtle EQ can obviously aid all parts of a drum kit. However, if you can, try to have each of your drum sounds on a different channel, so you can adjust levels and EQ separately. You can group certain parts together to add effects – a touch of reverb on your percussive elements, perhaps – but the more you have on individual channels, the more

flexibility you have down the line... and this goes for all of the processing, not just EQ.

Compression is one of the most common processes for drums and loops. Downward compression effectively reduces the level of the peak parts of your beats while keeping the level of the quieter ones the same, so the whole thing can be lifted as one without distorting. Upward compression does the opposite: increases the level of the low-level parts while the high-level parts remain the same. It's most often achieved with parallel →

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HARDWARE BEAT MAKERS



AKAI MPC LIVE

Price **£799**

Reviewed last month, the MPC Live is a multi-touch all-in-one hardware unit with some incredibly sophisticated features. Like Pioneer's Torai, it doesn't just do beats, but the MPC philosophy certainly lends itself to easy beat making – although there's enough power in here to create complete tunes easily, and it's great for computer-less music production and MPC-style beat making.
www.akaipro.com



ARTURIA DRUMBRUTE

Price **£379**

A proper analogue drum machine at this price is an amazing deal and DrumBrute doesn't disappoint in sounding like its name. It's warm, snappy, analogue and fat and there are many hands-on controls for editing individual sounds. We said: "In a world where there are plenty of options for hardware emulations of classic drum machines, it's refreshing to see a more affordable machine that has a sound of its own."
www.arturia.com



ELEKTRON ANALOG RYTM

Price **£1,300**

You can almost describe Elektron gear as 'reassuringly expensive', but once owned, you won't go back to using other gear. Like other Elektron kit, Rytm does things in its own way – there is both grid action and 16-bar-type sequencing – but the results are stupendous. Loads of hands-on controls, loads of very different features, loads of great results and loads of, well, cash, too.
www.elektron.se



ROLAND AIRA TR-8

Price **£439**

Based fairly and squarely on the original TR-808 and 909, the TR-8 was the first Roland drum machine to really nail those original machines. So if you want to recreate those, then this is a great modern option, with Scatter effects to liven things up, plus a great light show when you switch the thing on.
www.roland.com



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SCV Distribution - 0330 122 2500 - www.scvdistribution.co.uk

Tutorial 3 Programming trance

01 Choose a tempo of 140 and a 909 kit and draw in a kick on the four beats of each bar and a snare and/or clap on the second and fourth beats.



02 Now draw an open hi-hat on the offbeat between kicks – so eight in total, over the two bars. This is the basis of a lot of dance-music beats...



03 The closed hat is important in trance, as it gives a lot of energy. Draw it in, but make sure it doesn't sit on top of the open hi-hat, as shown. Reduce its velocity, too.



04 We've added a crash at the start of the loop, which would be good to add impact after a breakdown. A ride cymbal adds a bit of 90s nostalgia!



→ compression, where you have a kind of wet and dry version of your beats or loop: one with over-the-top compression (a ratio of 8:1) and one without any compression. The two are then mixed together and an EQ 'smile curve' applied.

Sidechain compression is most often where the beat itself, the kick, is placed in the sidechain input of your compressor (hard or soft) while an audio signal (anything up to the rest of the song) goes into its main input. The kick signal then controls the level of compression over the main signal – you'll need to

set the attack and release to fast settings – causing the famous Eric Prydz *Call On Me* pumping effect. It's become a little overused now, so maybe experiment with other input signals. There are three very good tutorials at MusicTech.net for the latter two types of compression here: www.musictech.net/2016/09/logic-compressor-new-york-compression. They're based on Logic, but you can apply the figures to any compressor and DAW.

Transient designers are another category of effect well worth considering using with beats, as they →



→ **PIONEER TORAIZ SP-16**

Price **£1,279**

The SP-16 doesn't just do beats – you can load in any samples – but it does do beats incredibly well, utilising the classic hardware sequencing made famous with the Roland TR series of drum machines and adding effects, performance features and Dave Smith filters for a great dance-music creator and DJ-set enhancer.

www.pioneerdj.com



→ **TEENAGE ENGINEERING PO-32**

Price **£85**

We love this more than any other Pocket Operator for beat making, because it marries up a fantastic piece of drum-machine software with a fantastic piece of drum-machine software. It's (sort of) the first-ever hardware emulation of a piece of software and works so well, that we concluded: "Separately, the hardware and software is superb. Together, they are beat-tastic."

<https://teenage.engineering>



→ **KORG VOLCA BEATS**

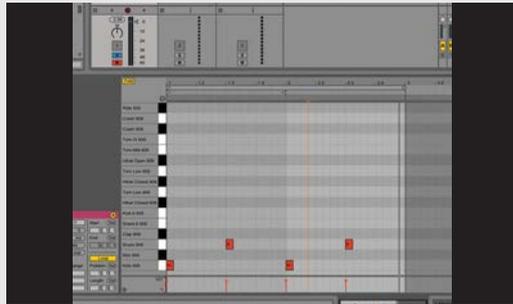
Price **£110 (street)**

Tiny, analogue, and just like programming a classic drum machine, Volca Beats was (and still is) at the forefront of bringing hardware beats back to the masses, after everyone decided software was the best way to make beats. It's a little flimsy, yes, but chained to its siblings (an ever-increasing Volca range) you don't get much better-sounding beats in hardware or software.

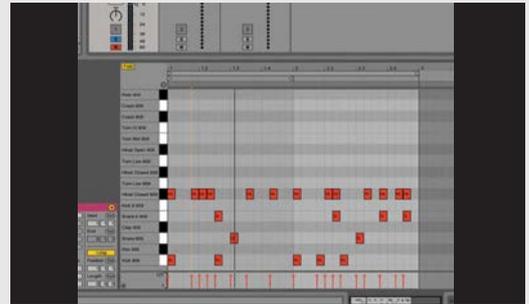
www.korg.com

Tutorial 4 Programming dubstep

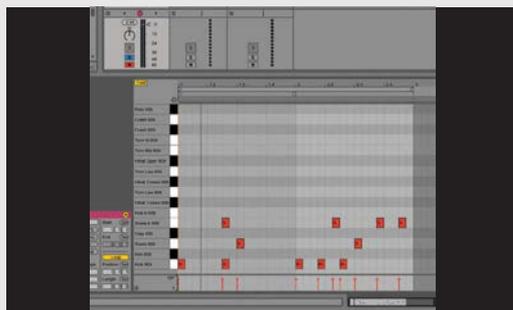
01 Dubstep shares some of the beats of trap and can have a similar tempo (140 BPM) and swing. It also relies on closed hats, but the way these are employed give it a very subtle difference.



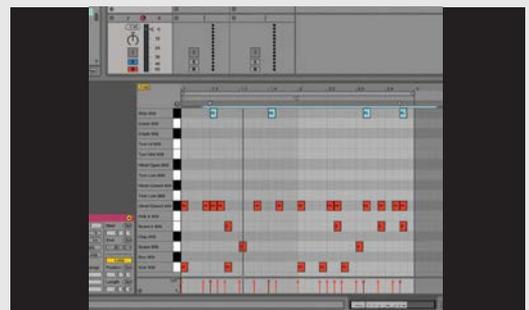
03 The closed hi-hat is again so important – almost as much as the kick – giving the beat a certain jitter as it opens on bar one and closes bar two.



→ **02** Again, add a second kick on the offbeat for swing, but now we differentiate it more from trap by adding a different snare – this time to give it more of a shuffled nature.



04 You can go mad adding lots of fills, but we've added a ride cymbal on beats 2 and 4 of the first bar to pin the first half down and then made it a little more random on the second bar.



→ allow you to really change the character of individual (or groups of) beats by altering the envelope – an often-forgotten-about factor that can really change any sound. Transient designers are often

employed on loops to alter the start and end characteristics, to give them a subtle changeable and live feel. More obviously, they can also add punch to any hit or loop by upping the attack, whereas increasing the tail can be great for more grungy and lo-fi loops.

Transient designers are often used on loops to alter the start and end characteristics, to give them a subtle changeable and live feel

Finally, tuning beats may not be something you've considered, but many producers swear by it, as essentially, your drum kit may need tuning to the pitch of the tune it is backing. We say 'may', as we're not convinced an entire kit needs it. Some beats need it more than others – a deep and boomy kick is the

FREWARE FIVE FIVE PROGRAMS FOR BEATS... WHICH ARE FREE!



DISTOCORE BAZZ::MURDA

Platform Mac and PC

Okay, this might 'just' do kick drums... but what kick drums. It's a synth drum-sound creator in name and produces some excellent kicks with attitude for dubstep, gabber, and drum 'n' bass heads. Or headz.

www.distocore.net



MELDA MDRUMMER SMALL

Platform Mac and PC

It's a cut-down version of Melda's MDrummer, but still comes with 500MB of sounds and data, including over 30 drum sets, 400 components, 200 samples, 50 multisamples, 60 rhythms, and 2,500 loops. For free!

www.meldaproduction.com



DSK SYNTHDRUMS

Platform PC

A synth-drum plug-in with a focus on electronic-sounding hits, but with plenty of effects (including filters, stutter, distortion and EQ), there's a wide range of sounds that you can produce, all very easily, too.

www.dskmusic.com



MINISPILLAGE

Platform Mac

A free, pro-quality drum synth which features three fully editable drum pads that can create a range of drum and percussion sounds. It also features 64-bit processing and has more features than you might expect from a freebie.

www.audiospillage.com



HAHAHA DS-01

Platform Mac and PC

A drum synth that the developer claims is straight out of 1983. You get eight synth sections, one for each drum type, from kick and snare to hi-hats and toms. And yes, the results are indeed very 80s.

www.pethu.se

Tutorial 5 Programming four types of house music

01 House music has more strands than a woollen jumper, so we'll cover four basic patterns here. We start with the same trance beats – that is, a kick on every beat and a snare on every other.



04 You can add additional open hats here and even a ride, but the idea is to keep it minimal and cutting, so go steady. With a lot of house, less is most definitely more.



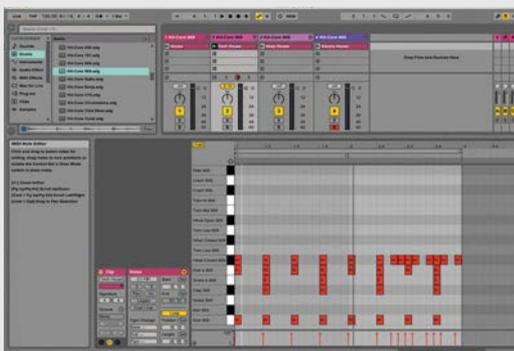
02 Add some closed hats to both the kick drums to give it more bite and a pattern of your choice around the kicks. And there you have a standard, easy house beat.



05 With deep house, again, it's about the sound of the kicks and other beats, so strip it back but bringing in some subtle hats at the start and some shuffling snares at the end of the loop.



03 We'll up the tempo from 120 to 130 BPM for our three variations. With tech house, it's about getting a solid kick and snare and less clutter, so we've doubled two kicks and snares.



06 Finally, with electro house, we've pulled the clap to be slightly ahead of the snare to make the sound a little dirtier and more in your face and added a rim sound for clout.



BELOW: Transient designers can be employed to shape characteristics of beats, such as their attack and decay

obvious one. Some samplers have easy ways of tuning entire kits to go along with the pitch of your song and, in other cases, it might be that you play it by ear. Pitch up and down a semitone and then fine-tune it until it sounds right. If you're not sure, use a spectrum analyser to determine the frequency of your beat – middle C is 261Hz, A is 440Hz and so on – and tune according to your song's pitch.

Dealing with loops and samples

The easiest way of creating beats is, of course, using sampled loops or hits. Jungle, breakbeat, and trip-hop were built on sampling beats, usually



Tutorial 6 Programming grime

01 Grime starts out by being more about the gaps between the notes than those in there. We set the tempo at 140 BPM and add a snare on the third beat of each bar. Easy so far...



02 Now the kicks – and you can see what we mean about the space in between. The kicks almost introduce the first snare and then end the loop with nothing in between.



03 That's not to say we're not going to add more beats. You can again be brave. We've added some hats (naturally) and still left the gap in the middle as breathing space.



04 You might not be able to resist filling that gap, so only add the odd closed hat. Also consider adding a bit of swing if you can, as grime most definitely benefits from a subtle touch.



→ obscure ones from old vinyl. Nowadays, of course, there are a gazillion sample libraries out there for specific beats and genres, and don't feel bad about using them – that's what they're there

for. As you're not sampling vinyl while mining for beats, you know you're covered legally with pro sample collections (do always check the small print first, though). See the boxout below for plenty of our sample-collection recommendations.

Generally, the rules are the same for processing breaks – although, because of their nature, there are

There are a gazillion sample libraries for specific beats and genres... don't feel bad for using them. It's what they're there for

one or two extras worth considering. Beat slicing – first made famous by Propellerhead's ReCycle – is particularly appropriate for breaks, as you can carve them up into their constituent beats and replace some or all with your own, thus effectively making that break that you've sheepishly lifted from a collection or record a bit more worthy.

THE SAMPLING SOLUTION

OF THE BEATS-BASED SAMPLE COLLECTIONS WE'VE LOOKED AT RECENTLY, THESE ARE SOME OF THE BEST...



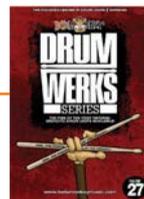
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DRUM TOOLS 02

Publisher Wave Alchemy
Price £49.95
Contact info@loopmasters.com
Web www.loopmasters.com
"A phenomenal collection of vibrant and powerful drum hits that should be an essential purchase for anyone looking for cutting-edge, mix-ready drum sounds for electronic music."

Tutorial 7 Programming drum 'n' bass

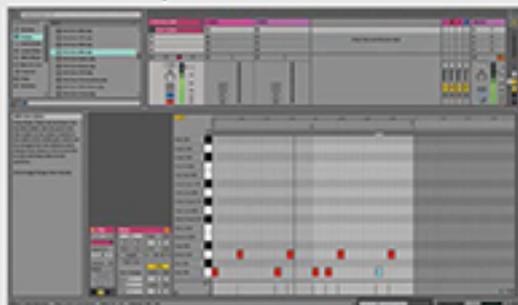
01 This genre is still popular after more than 25 years in action. The first thing is to set your tempo high. Ours is at 170. Place snares on the second and fourth beats of each bar.



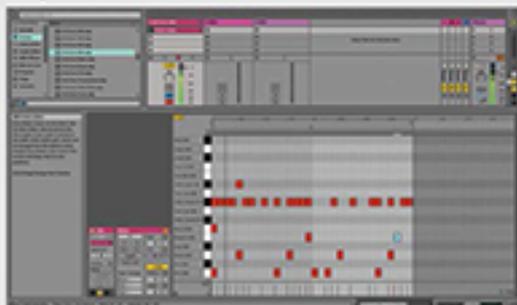
03 Again, you can go bonkers here and add whatever you like. We've added some extra clout on the first kick by way of an extra kick and closed hat to add emphasis to the start of the loops.



02 Now place a kick at the start of each bar and experiment with placing them elsewhere. The best and most traditional place for the second kick in a bar is halfway between beats 3 and 4.



04 Finally, it's those good old closed hats that add swing and sway to the loop and an urgency that is enhanced at this high tempo. We've also added a couple of offbeat snares to lift it.



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Workshop Using Circuit for beat inspiration

Novation's Circuit has one or two tricks up its sleeve for inspiration...

01 Hardware beat makers are so inspirational because they're hands-on. Novation's Circuit uses the 16-step input approach to making beats, but uses two rows, so you can input two tracks at a time. Here's a simple 4/4 kick pattern over 16 beats.



04 The new 1.5 update (review coming soon!) enables you to audition sounds on the fly simply by selecting from 32 beats on the 32 pads. You can play them and as you select each, the pattern changes accordingly, allowing you to experiment.



02 The top row is for those kicks, so now we add the snares along the bottom row of 16. It's similar to the house-music tutorial we did, only now in hardware!



05 As we said in the main text, one of the key programming skills to introduce is swing, which will really add a live feel. Circuit has an option for this. Hit the Swing key and a large 50 appears on the screen.



03 Select the other two drum tracks on Circuit for two more beat layers – this time open and closed hats. The top row is a plentiful selection of closed hats, while the bottom is the open hats. Pretty standard beats so far, but Circuit has options...



06 Simply adjust the swing up and down to experiment with the overall feel of the groove. At extremes like this, it still works as a beat, but gives you something completely different from that rather samey beat we started with.



**KV BALA KRISHNAN
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Publisher Loopmasters
Price £24.95
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Web www.loopmasters.com

"Tight-sounding Indian percussion in a wide variety of tempos that could prove a useful tool for media composers and dance-music producers alike."



LA BEATS

Publisher Mode Audio
Price £18
Contact info@modeaudio.com
Web www.modeaudio.com

"Despite some occasionally unsubtle production finish, this is a versatile and characterful collection of loose-sounding loops and hits."



PURE 909

Publisher F9 Audio
Price £21.95
Contact info@loopmasters.com
Web www.loopmasters.com/
labels/80-F9-Audio

"A meticulously processed and written, well-formatted library of punchy electronic drum stems that capture the subtle nuances of the classic machine."



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Publisher Umlaut Audio
Price \$199 (also available separately for \$99 each)
Contact via website
Web www.umlautaudio.com

"A large, high-quality library of drum sounds suitable for a range of genres, with a flexible GUI and FX system."

→ Another way of incorporating loops into your percussive tracks and making them your own is by layering hits (or complete programmed beats) underneath – a solid sub on the first beat, for example. Of course, you can also layer more loops together, but beware the clashing of frequencies and be prepared to go to town with your EQ.

The future of beats is...

We've talked about beat programming and processing in terms of hardware and software, but only touched upon those systems – NI Maschine, Ableton Push and Live and Teenage Engineering's PO-32 – that have elements of both worlds. Yet these are possibly the future. Push, in particular, opens the sensibilities of beat programming open to the wider music-production audience, so you'll be making tunes as quickly as you do beats. While we love all three very different ways of combining technologies, we feel that having a hardware element in whatever you do is where the fun comes in. Simply hitting something to make a noise... well, it's a 'beat-iful' thing, isn't it? However you make your beats, we hope this feature will give you the inspiration to take your programming or processing up a level. **MT**

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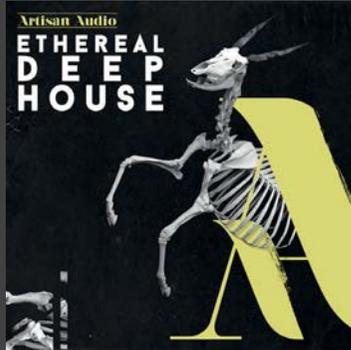
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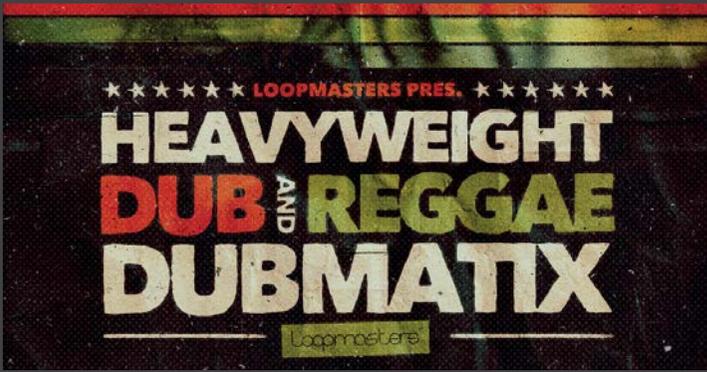
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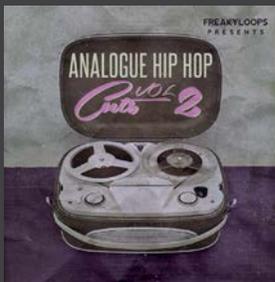
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SHOW OFF YOUR STUDIO

Would you look at that! Yes, it's time to show off your studios and this month, Luciano is doing just that. Upload a shot of yours to the **MusicTech Facebook** and you could be in our next issue...

Imagine Sound/Luciano (Cadenza Music)

Interviewee: Luciano and Idriss Dib

Contact: www.cadenzamusic.net

This incredible studio is owned by artist, producer and DJ Luciano, who also runs Cadenza Records.

The facility is the central hub for recording and mastering all of the label artists. Luciano tells us more about the facility...

MusicTech Tell us about your incredible studio?

Luciano: It's based around a Stereo

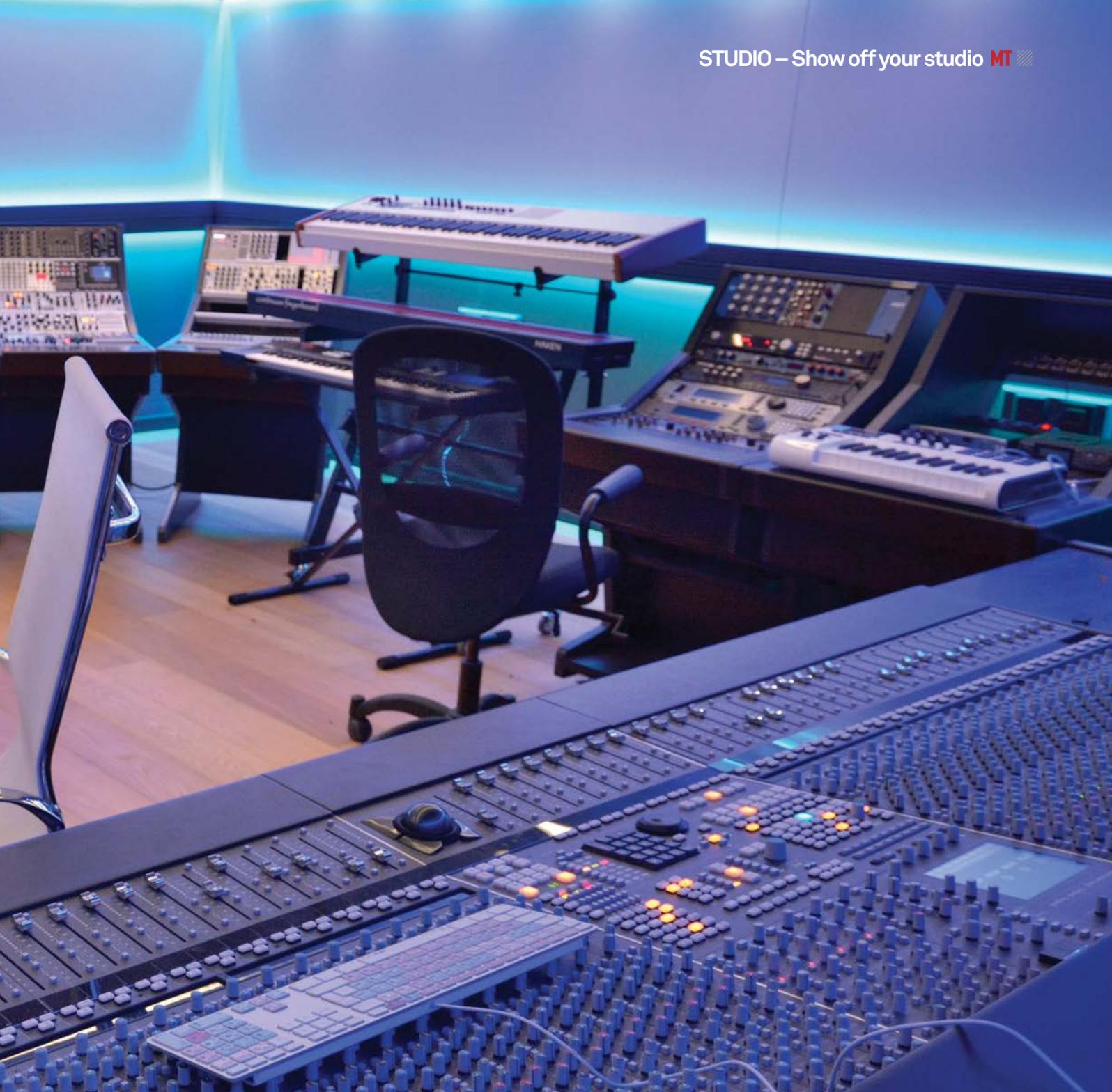
Reflexion Arts acoustic design with a high-resolution monitor system, consisting of two RA239 monitors and RABX1 subwoofers, driven by Reflexion Arts/Neva Audio Studio II RA MKII and Neva Audio NA3200 amplifiers. The system, processed by BSS London Series BLU-160, is capable of a frequency response from 16Hz-27kHz. All the studio racks are designed by Joules Newell and supplied by Reflexion Arts as well.

MT Tell us about the desk...

It's an SSL Duality. We chose it because it's an amazingly versatile mixer, with that famous SSL parametric EQ. It also offers great DAW control possibilities and is just a fantastic mixer that you will never get bored with.

MT What's your favourite gear here?

It's very hard to reduce all my studio down and choose just one piece of



gear. I've been collecting items for it for many years and many of them have a timeless quality, or I use them all the time when I'm in the studio. But if I had to choose one, then for composing, I love all of my Eventide effects, because they have so much depth and you can create so many effects that are in perfect sync with all of my modular racks. As for the mastering room, the Shadow Hills Mastering Compressor is my favourite.

It'll turn any piece of music that's flat and without colour into an incredibly warm, rich and musical result.

MT How much time do you spend in your studio?

As much as I can between my shows, sometimes every day, sometimes two times a week.

MT How do you use your studio?

I record professionally, but I guess it is →

MAIN PIC: The just extraordinary Luciano setup has custom-built racks for the ultimate 'bridge on the Starship Enterprise' feel

RIGHT: PMC finds a place in the mastering area



Imagine Sound/ Luciano (cont'd)

→ also still for fun. In the past 16 years, I've had the chance to move from Berlin to Switzerland, Chile and Spain and try out different studio and recording environments, but now, I've finally settled on this my main studio in Lausanne, Switzerland. I now also understand that I need to split the studio in two: one room for composing and the other room for mastering and correcting sound.

MT What's next on your shopping list, gear-wise?

For now, I've spent most of the budget on the modular synths, but gear is gear and you never know.

MT Anything annoy you about it?

It did in the past, but I have to say that I am super satisfied with the work that has been achieved in the studio thanks to Reflexion Arts and Joules Newell, who helped me out with the acoustics and the studio build itself.

MT What is your dream gear, either real or imaginary?

A machine that can translate emotions or thoughts into notes or anything like that. We're working on it...

MT Do you have any advice for aspiring studio owners?

When building a studio, the very first thing to consider before dealing with instruments or gear is the acoustics. Make sure your room sounds great and then anything you add later will sound good in it.

MT Finally, do you have any crazy studio anecdotes?

A flood in Berlin, a sign from extraterrestrial encounters, love on the couch, endless after-hours activities, yoga lessons, a dog destroying keyboards and a wild pig at my door. Let me see, what else? →



ABOVE: And here it is from the other way around

A little bit of modular action (RIGHT) and a huge record collection, too (BELOW)

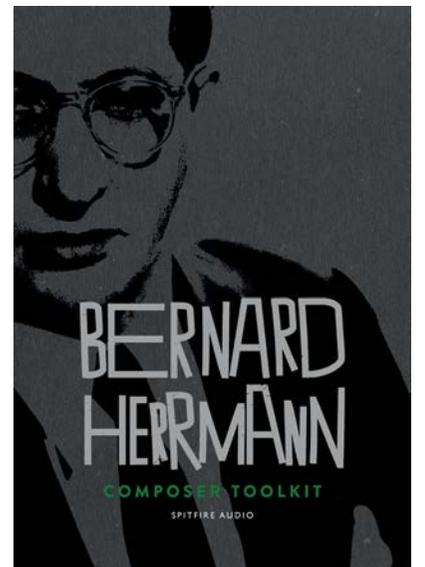




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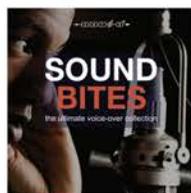
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NATIVE INSTRUMENTS



→ Hereford College

Interviewee: **Dan Armstrong**

Contact: hlcollege.ac.uk

MusicTech Give us a list of the gear in your studio?

Dan Armstrong: SSL Duality Delta and Alpha-Link SX; RME MADiface USB; Apple iMac i5; Warm Audio WA-EQP; wide range of mics including Aston Origin & Spirits, Neumann TLM 103, Sennheiser e609, Shure Beta 52; Roland Digital Snake setup (for extra/alternative mic pres); Behringer P16 setup for foldback; Yamaha NS10s, Tannoy System 1000s monitors; Synths include Yamaha Reface, E-mu modules, Roland System-1, TR-8, VB-3, XV-5050, MKS-50, Korg MicroKORG, Oberheim Matrix 1000, Access Virus; Akai S3000XL sampler; Novation Launchpad.

MT Which DAW and why?

Avid Pro Tools 12 – seamless integration with the Duality Delta Control. It's the industry standard for audio recording and mixing. Logic Pro X – super creative for the composing aspect and very intuitive and quick to create on.

MT Favourite gear? The SSL, because of the sound quality and functionality. After learning my trade on various consoles, but mostly the SSL 4000,

the Duality is cleaner (like the J and K series), but can handle being pushed a bit. With the combo of great mics and the Warm Audio EQP, you can get a really great sound, and very quickly. The Astons are great, too – such a good sound for the bargain price.

MT How is the studio used? It's a training facility for students on BTEC Level 3 and 4 (HNC). The sessions are wide and varied, from bands to electronic projects. The whole aim of the room is to encourage a professional attitude and give students the confidence to use high-end kit, ready for the varying types of employment in the music and associated industries.



ABOVE: Dan Armstrong at the controls of the second SSL Duality this month (pic courtesy of Mike Banks)

BELOW LEFT: A smaller Logic studio for composing and the Astons (BELOW RIGHT) are just two of the many mics on offer

MT Next on your shopping list?

We're looking at PMC actives, because after hearing them, they sound great! I like the Warm Audio stuff. We need another EQP for pairing work, along with the WA-2A, and WA76 – these will add further flavours to the SSL mic pres. We've also got the support from SSL for further toys.

MT Anything annoy you about the setup? Only that Mike Banks from SSL keeps tempting me with the other 24 channels!

MT Any studio advice? Plan, plan and then plan some more; learn to solder; patchbays are invaluable; network with other people. **MT**



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MT Interview Fader

FIRST LIGHT

Fader is Bengel's third project to feature a renowned vocalist from the pioneering days of electronic music. **Andy Jones** catches up with the vintage synth master and Blancmange's Neil Arthur to discuss their new project and Bengel's incredible synth grotto...



Benge has one of the best studios we've come across, period. Buried in the depths of the Cornish countryside is a bunker's worth of vintage gear, which almost resembles a super-villain's 1960s secret hideaway – albeit a super villain who has a penchant for vintage modulators. Benge has (nearly) everything: a Moog Modular system, Roland System 100m, a rare ARP 2500 modular, a Yamaha CS-80, even a Seiko synth we'd never heard of (we thought they just did watches). There are racks of outboard, analogue keyboards, digital bargains, random pedals, computers, mementos, cables and a dog. A big dog.

Benge doesn't just collect synths. He's just completed a hat-trick of recordings with legendary vocalists, themselves no strangers to the technology he has gathered, perhaps even drawn in to his world because of it. First he recorded (and still does) with the Godfather of English synth music, John Foxx. With *Wrangler* – featured three years ago in *MusicTech* – Benge teamed up with Stephen Mallinder, the Cabaret Voltaire

vocalist, and now it's the turn of Blancmange frontman Neil Arthur to provide the voice – only this time it's different.

Firstly, they didn't meet during the recording of their album *First Light* – much of it was actually recorded years ago in Los Angeles. Secondly, none of the gear you see on the following pages was used – although we will talk about a lot of it as this is *MusicTech*, after all. And lastly, the two didn't meet to talk about how the project should turn out – they let it evolve on its own...

Benge should really be stroking a white cat in a menacing way as I arrive at the studio to meet him and Neil; instead, Rocko the dog takes centre stage to keep an eye on proceedings. As we look around the incredible collection of gear, the first question is obvious: how did Benge's interest in vintage synths come about?

"My parents used to run a school for autistic children which was at the family home," he explains. "We had a music room and it had a little modular synth, a homemade one that a friend of the family had built. There was also →

ABOVE: Much of Neil Arthur (left) and Benge's collaboration as Fader was recorded a number of years ago in LA

New Modular Versus Vintage Modular

MusicTech: With both Benge and Neil's backgrounds in using classic synths, have either been tempted by the newer Eurorack route?

Benge: I haven't been, as it's a bottomless pit isn't it? I like self-contained systems and pretty much all of these here are, so when you are working on them you come up with sounds that have a signature to them. With the modern stuff, you're putting together a system from loads of manufacturers, so you miss out on that. I know you could put a system together by

one manufacturer, but there's something about a vintage system that means it has the sound of a time, one referencing the 70s or 80s, and I like to bring that sound into a modern context. The main thing is to create your own unique voice, to get a sound that no one else has and stick to it, believe in it and nurture it. I do think the new modular scene is incredible, though, as there are more manufacturers than there have ever been before – so it's amazing. Seven years ago, you couldn't have predicted that that would happen.

Neil: Yes, just like the resurgence of vinyl. It's funny, I heard someone asked what they were into the other day and they just replied: "I'm into vinyl," and I thought: "What, all of it?" I think the modular stuff is incredible and, while we came from an experimental background, I really enjoy writing songs now, so I don't feel the need to collect synths. I add things occasionally, like the Roland Boutique stuff, and I even bought the littleBits thing from Korg, so I'm into that stuff. So I'll probably go back to using tape loops rather than modular!



Neil Arthur's Studio

MusicTech: Tell us about your setup, Neil?

NA: It works for me, but there's no comparisons to Bengé's! I used to have a studio doing film and TV music and writing songs, but I did find I was using less and less gear and I even got rid of my mixing desk. I now have a Mackie Big Knob, a pair of Mackie 824s, a Mac, MOTU interface, a Joe Meek preamp, a couple of mics (AKG and Shure Beta 57, which is what I use on stage), and I have a reflection filter and that's it. I use a lot of software instruments in Logic (which drives me crazy) and Ableton (which is lovely for ideas). There's some classic stuff not used as much. I have a rackmount Super Jupiter which I do still use.

MT: Any studio advice that you've picked up?

NA: Like Bengé, I've learnt not to go into the studio unless you have something, even if it's just an idea or an acoustic-guitar line. When I was working to deadlines with film and TV music, you really had to utilise your time well.

MT: What's your favourite studio gear?

NA: I love the Gforce stuff – the Oddity 2 is my favourite. Obviously, you want to find your own sound, but there are some bloody good presets in there. I really like my Super Jupiter module. There's also the new Roland Boutique modules. I have the JX and JP ones. I was thinking of incorporating them into the Blancmange setup to see if we could get Blancmange in a smaller box, but you have to daisychain them together to get the polyphony.

ABOVE: Bengé picked up some of his modular gear for silly money before prices for vintage synths skyrocketed

→ a 70s Hammond organ, a four-track tape machine, percussion and things like that. I used to play on it when I got home from school. I was probably listening to prog rock at the time and I was also into Brian Eno and some of the German stuff, a lot of Kraftwerk."

Bengé ended up in art school, but carried on his experimental compositions, producing four solo albums... "I wasn't into dance music. In fact, there wasn't a single 4/4 beat on them – they all had weird time

And collaborate he certainly does. John Foxx, Stephen Mallinder and now Neil Arthur... What's going on? Is he collecting synth icons?

"I think it's because I'm passionate about this vintage gear," Bengé replies, "and I'm also very passionate about that period of music and about making it still relevant. I met John during the making of the BBC *Synth Britannia* documentary. They wanted a background to film it and used my studio that was based in Hoxton at

“We started out and both wanted to be experimental – no straight rhythms or melodies”

signatures. I was really into Warp artists like Autechre and Black Dog, bands on the more experimental side. I started my own record label called Expanding Records, as no one wanted to release my stuff – and it grew quite big. We put out albums by about 15 different artists and it's still going.

"In fact, we're just about to put out a box set of all 17 albums on vinyl. That got me in touch with lots of artists and made me realise that I really like collaborating."

the time, and he came down for that. He'd just got back into working with analogue so came to the studio to shoot the documentary and ended up wanting to do an album there.

"So we started out and both wanted to be really experimental – no straight rhythms or melody – but as soon as we started working together we ended up going straight for the melody!"

Bengé later moved to LA for a few months to do some writing with the →

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Inside Benges Incredible Studio

MusicTech: You've amassed a huge amount of gear. How did that start?

Benge: One day, I asked my dad about the old modular synth we'd had back in the house and he told me he'd just thrown it away the previous month after a loft clearout. I was really upset, as I remembered using it so much – so I then got into buying this stuff. Back in the early 90s, it was so out of fashion that people were literally just throwing it away. I'd just use *Loot* magazine and go around to people's houses. The first thing I bought was an Octave Cat for £20 and sold that for £40 to buy a Yamaha CS-40m. It's a duophonic mono synth. I've now got a CS-80 which cost \$600.

MT: Can you actually have too many options?

Benge: The key to not going mad in here is to know what you want, otherwise you could spend a

whole day on a hi-hat sound. I'm good at avoiding that situation. One thing I don't like is someone coming in and we try to write something from scratch. It's so difficult to do and it rarely works out. It's always better to come in with something, have a sequence set up or a framework that leads towards a track, or you can just go nowhere.

Also, don't worry too much about the crackles and the bits inbetween the sounds – in fact, capture them! I like to capture all of the glitches and not throw away the mistakes and the noise you get from each system. There's an ARP 2500 over there that uses sliders to patch it. You line up the inputs and outputs of the modules using these sliders and you get sounds that bleed through with a kind of crosstalk thing. It makes it more interesting; you get things you never expected to hear in the background.

CLOCKWISE FROM TOP LEFT: E-mu Modular, including some of the logic modules that E-mu pioneered

The Moog Minimoog is the perfect mono synth. This one used to be Suzi Quatro's

Serge Modular: "A very early Serge, built by Californian hippies in the early 70s"

EMS polythi: "A very rare beast – it's rumoured there were only 30 of these made"

→ view to possibly living there. He rented out the Hoxton studio, to Soulwax ("They're heavily into analogue, so took the studio on while"), so Benges had to buy a new setup in LA.

"I went on Craigslist and eBay and bought some very choice bits: an Oberheim Two Voice, a Roland Juno-60, a little vintage 80s drum machine, some effects units, speakers and an old Yamaha analogue mixing desk – everything for a studio! I had a sound in my head that I wanted to achieve, so I knew I wanted to get this certain period of gear from the late 70s and early 80s."

"I got a lot of it off an old guy who had had it forever but had just retired. He came around and delivered it – the mixer, speakers, even a table it fitted in and the effects units – and he was in tears... he was so sad, as it represented the end of his career."

UPPING THE FADER

Benge worked on many tracks using the setup but soon realised that LA wasn't for him and, on the day he departed, he sold the studio on. He used some of the tracks on the *Wrangler* project with Mallinder and Phil Winter, but still had many tracks left over.

"They were about 80 per cent done, but needed something to gel them together... I didn't know what," Benges says. "I played them to my manager who happens to be Neil's manager too, and he suggested sending them to him. Obviously, I was aware of all of Neil's work from *Blancmange*..."

"And I knew of Benges's stuff with John Foxx and *Wrangler* and I'd also heard an album of his called *Twenty Systems*," Neil Arthur recalls. "We had briefly met, but not talked about doing music together. I thought this was such a great idea, so I said 'Yeah great, let's have a listen'. I'm always writing lyrics, so have a lot, and in this case, many that fell into the songs. They just seemed to work. I started hearing melodies for them, so thought 'this is good'. I did everything in Logic and got all of my ideas down and sent them back."

"Yeah, it took longer to master it than it did recording it!" Benges laughs. "And little of the music was done with the gear here – it was all that I bought in LA!"

So the process of adding Neil's vocal to Benges's older recordings turned out to be a super quick one, →

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Six Of The Benge



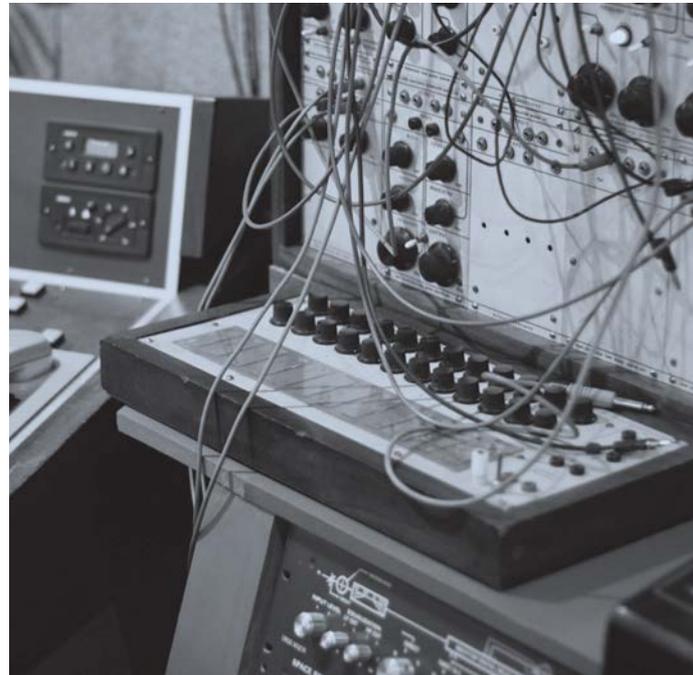
ARP 2500 rack

"This is one of my favourite possessions – I'm so lucky to have got hold of one before the prices went crazy. I got this one years ago from a mixing desk dealer who got it from a studio clearance. The day after I bought it, he called me up to ask if I would sell it back to him, as Hans Zimmer wanted to buy it – I said 'No', of course!"



Korg 800DV

"This is the Korg Dual Voice – an amazingly versatile and underrated synth from 1975. It's two fully functioning mono synths in one package: you can layer sounds up or play it duophonically. You can easily set it up so one sound morphs into another – starts off noisy and decays away into a pure tone, things which you can't do on many other synths."



Buchla 100 modular

"I got into Buchla stuff a few years ago and it's amazing. It took me a few years to put my system together, because owning a vintage Buchla is a bit like trying to join a secret society – you need to know who to speak to and learn a secret handshake before you're allowed into the party. This thing sounds so raw – like listening to pure electricity."



EMS polysynthi

"A very rare beast – there are rumoured to be only 30 of these made. I love this thing – it's completely bonkers with its built-in voltage-controlled analogue delay, and an aftertouch keyboard which works by pushing the entire keyboard down by about an inch. Also, the knobs all go backwards, for some reason. You turn them anticlockwise to go up to 10."



E-mu modular

"These are very powerful-sounding systems with extremely well-thought-out components. I've put this system together bit by bit, including some of the very interesting logic modules that E-mu pioneered. They allow you to do things like set up unusual and complex generative sequences that you can set up to run by themselves."



Formant modular

"This was made in the late 1970s from one of those kits that you used to get from a monthly magazine, in this case, a German mag called *Elektron*. So the construction quality is a bit hit and miss. It sounds really good though, a bit Moog-like in character. It's got some unusual things in it too, like the hi-hat/percussion module, which I use all the time."

“Owning a vintage Buchla is like joining a secret society – there’s a secret handshake”

but did Neil try and do anything specific with this project to make it sound different from Blancmange?
 “No, I was just being me, but I’ll go with whatever suits the moment,” he says. “I do have a thing about using distortion on my voice, probably a little too much – a couple of people say I should ease back on the plug-in. It was the overdrive one from Logic, I find that a little more subtle than the distortion. I’ve also got a SansAmp that I put vocals through and sometimes, I put it through the Waves distortion or just some simple EQ.”
 Benge reminds Neil about another vocal addition. “There’s a power drill on one of the vocals, as Neil left the door of the studio open when he was having some work done in the house. But it sounds in tune and comes in at just the right place, so we left it in... We even gave the workman a credit on the album!”

NO EXPECTATIONS

Neither Neil or Benge met to discuss the project face-to-face, but left it to the music to do the talking. “I didn’t even tell Neil that they were recorded in LA,” Benge adds. “It was quite a weird experience to be in LA on my

own and I was pretty isolated. Maybe that sense of isolation came through in the music, because funnily enough, Neil brought it through in the lyrics.”

“My image of LA was also based on old 80s sci-fi soundtracks. That’s what I was trying to recreate. People like Harold Faltermeyer did these iconic soundtracks very much of that period. Neil’s vocals had an edge that really suits it, too, and it really helped by them not being recorded here. It worked brilliantly.”

And it was an equally enjoyable experience for Neil. “I didn’t feel that anyone was waiting,” he says. “If there are other people in the studio waiting it can be hard work, but with this process, we trusted each other to get on with it. I felt more relaxed and as the music was done already, I only had to do half the work!”

Future plans sadly won’t include touring the Fader material, simply as they have so much on. Neil has a new Blancmange album out in September, backed by two tours (one with old friends Heaven 17) plus a nine-CD boxset on Edsel Records. He’s also involved in a project called Near Future with Jez Bernholz, who plays in Gazelle Twin. Meanwhile, Bengie is working on new Wrangler material and a new album with John Foxx. [MT](#)

BELOW: Neil Arthur sitting with the Moog Modular that Bengie paid around £3,000 for



SOMETIMES INSPIRATION DOESN'T COME KNOCKING AT THE DOOR...



ORCHESTRAL TOOLS
FINEST SYMPHONIC SAMPLING PROJECT

MT Interview Jane Weaver

SONIC TAPESTRIES

The captivating and elusive electronic songwriter Jane Weaver has had a lengthy career that has already spanned 24 years. Ahead of the release of her latest record, *Modern Kosmology*, **Andy Price** chats to Jane about her compositional approach and some of the amazing tech at her disposal...

...SO WE HAVE TO PAY A VISIT TO OUR SOURCES OF INSPIRATION INSTEAD.

From her initial forays into music making via early teenage bands, her post-apocalyptic opus *The Silver Globe* to her new, philosophical psych-pop masterwork *Modern Kosmology*, Jane Weaver has had an enviable career. Using a variety of electronic and live instrumentation, she crafts textured compositions generally featuring Kraftwerkian beats, washes of guitar, ethereal vocals and pulsing injections of a wide variety of classic analogue synths. Widely appreciated by the music industry, Jane even received a call from one admirer by the name of Chris Martin (yes, that one) who asked for permission to use one of Jane's samples on Coldplay's 2014 album, *Ghost Stories*. We caught up with her to find out how she's maintained such a vibrant and forward-looking career...

MT: When did you first start writing music?

JW: "Well, I was obsessed with Kate Bush when I was six, and decided I basically wanted to do what she did – I loved all that music at the time. It was the 70s, so an eclectic mix of everything from ELO to disco was in the charts. I started writing silly pop songs but eventually, I wrote some more 'serious' stuff with a friend at high school. Her parents owned a pub and a karaoke tape machine with two microphones, you could make a live vocal recording on top of your own home-made backing track... This was amazing to me at the time – one of my first 'hacks'."

MT: So how did you develop from your early beginnings into a bona-fide artist?

JW: "I started recording in a band when I was 16 or 17 and eventually got a record and publishing deal aged 19. We were called Kill Laura and had a few records out, we recorded an album through Polydor. But unfortunately, our A+R man got sacked, so we got shelved! We eventually got rescued by New Order's manager (the legendary Rob Gretton) who was starting a new label in Manchester, but after a while the band split up so I became solo. Sadly, just before the release of my solo album, Rob passed away in 1999, so that album didn't come out either."

"I then went on to work with labels such as Andy Votel's and Badly Drawn Boy's label Twisted Nerve, and formed a new group, Misty Dixon. Eventually, I started releasing solo records under my Bird imprint – first with Pias, then Finders Keepers Records. I've just moved to a new label, Fire, and this is my sixth solo album."

MT: How does a typical song start for you? With music or lyrical ideas?

JW: "I generally start with an idea in my head for most songs, it's either a full thing with visuals and clear parts, or a loop of something. I'll occasionally write with a guitar or synth – I make skeleton tracks on GarageBand, or just use voice memo, or sometimes I'll video synth parts, then I take them into the studio. Some songs have the band playing on them, but I quite often change or dissect stuff to try and make it more interesting, so for example, I'll combine samples of real drums with a drum machine. The studio where I work, Eve Studios, has lots of interesting equipment, so sometimes I'll hit on a rad sound and that will



ORCHESTRAL TOOLS
FINEST SYMPHONIC SAMPLING PROJECT



Jane Weaver's new record showcases a diverse range of sounds from vintage and modern gear, ranging from a Casio MT-46 to a Novation Bass Station

→ inspire other things. I'll take stuff back home and the listening-back process and time allows you to make things better (I think!). Then I'll go back to stuff, or start something new if I'm bored.

To me, making an album is like a treasure-hunt map, it doesn't make sense until you solve the clues along the way... you have snake pits and whirlpools and beautiful landscapes to deal with.

"For this album, I was inspired by process and how other people create, looking more towards female avant-garde artists or unusual practices. I stumbled upon Hilma Af Klint who was an artist in the late 1800s onwards; she used seances and automatic drawing from channelled energy to paint, sometimes for days on end, until collapse. I was also inspired by a visit to the Isle Of Eigg in Scotland, because we had a gig there, and then Anglesey in Wales, as I was drawing on the landscape there and being surrounded by the magnetism of the sea."

MT: What gear's in your setup, and what instruments do you typically use to compose?

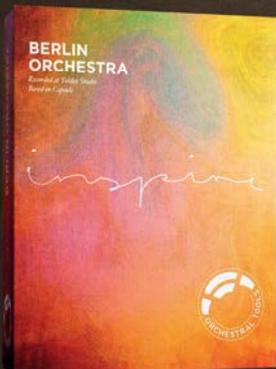
JW: "It's very basic for composing at home. I use simple recording apps and sketch ideas with

“To me, making an album is like a treasure-hunt map, it doesn't make sense until you solve the clues”

GarageBand, once the skeleton track is created, I'll take it into the studio or send it to the band. I'll use drum machine apps, too, or drum machines from my keyboards. I've got a Logan String synth, Roland Juno-6, Farfisa Bravo, Casio MT-46 and Novation Bass Station, with a Firebird guitar and WEM Dominator amp, plus a Copycat and some delays – which is kind of enough for the basics.

"My demos are pretty shoddy – the band always laugh – but I just want to get some of the key ideas down that I can hear, I don't want to make them perfect. There's no point labouring on them for too long... then, I'll usually transfer these bare-bones demos to ProTools in the real studio and fix stuff and record on top. For *The Architect* for instance, I used the home demo to start and recorded drums on top in the studio. It depends on the track, really. I'll keep writing; I also change stuff if I feel I can make a chorus or section better. I sometimes change the vocal melody if the one I've written sounds a bit 'keen' to the track." →

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→ **MT:** What software/hardware do you use to record your mixes?

JW: "At Eve Studios where I record, they've got a Calrec desk and I use Pro Tools as my primary DAW. There's lots of different compressors and rack-mounted gear there, some boutique stuff, too. There's also a good selection of mics. I hammered the Publison digital delay! Sometimes, we use plug-ins for time-stretching and sampling, or Auto-Tune stuff to make it sound more synth-like."

MT: Do you have any software/hardware that you're keen to get hold of?

JW: "I'd like to own a Minimoog D, a Binson, a Publison... and a VCS3."

MT: What was the writing/recording process like for *Modern Kosmology* and how long did it take?

JW: "I started around Autumn 2015 and delivered it in January 2017, so last year I was completely immersed in the creation process. I wasn't in the studio for that whole time, though, I actually recorded a lot more songs which have yet to be finished, as I wasn't too sure exactly where I was going for a while."

MT: So what instruments are most prominent on the new record?

JW: "Quite a few! Here's a brief list – a Roland Juno, String synth and guitar synth, ARP, Jen, Korg Poly-Ensemble, Minimoog, the SH-101..."

"Our guitarist Pete Philipson has lots of nice pedals. In the studio and live, he uses a combination of Boss Space Echo, Gurus Echosex 2, a CE-1 and an Electro-Harmonix HOG for all those weird pitch-shifting and guitar-synth tones on *Did You See Butterflies?*. And for distortion, a Boss DS-1 and SansAmp GT-2."

MT: How do you perform the songs live – do you emulate the studio mixes, or take the compositions in different directions?

JW: "I like to try and make it sound close to what I've recorded, but bigger, really. I'm not really into deliberately doing a different live version of something unless I have to. I spend so much time in the studio making and deciding on synth parts and sounds that some of them can't be recreated live, because I either don't own it or it's not possible to ever get that sound or timing again without the help of technology! I play some synth bits on a Roland SPD-SX, and everyone plays their parts live."

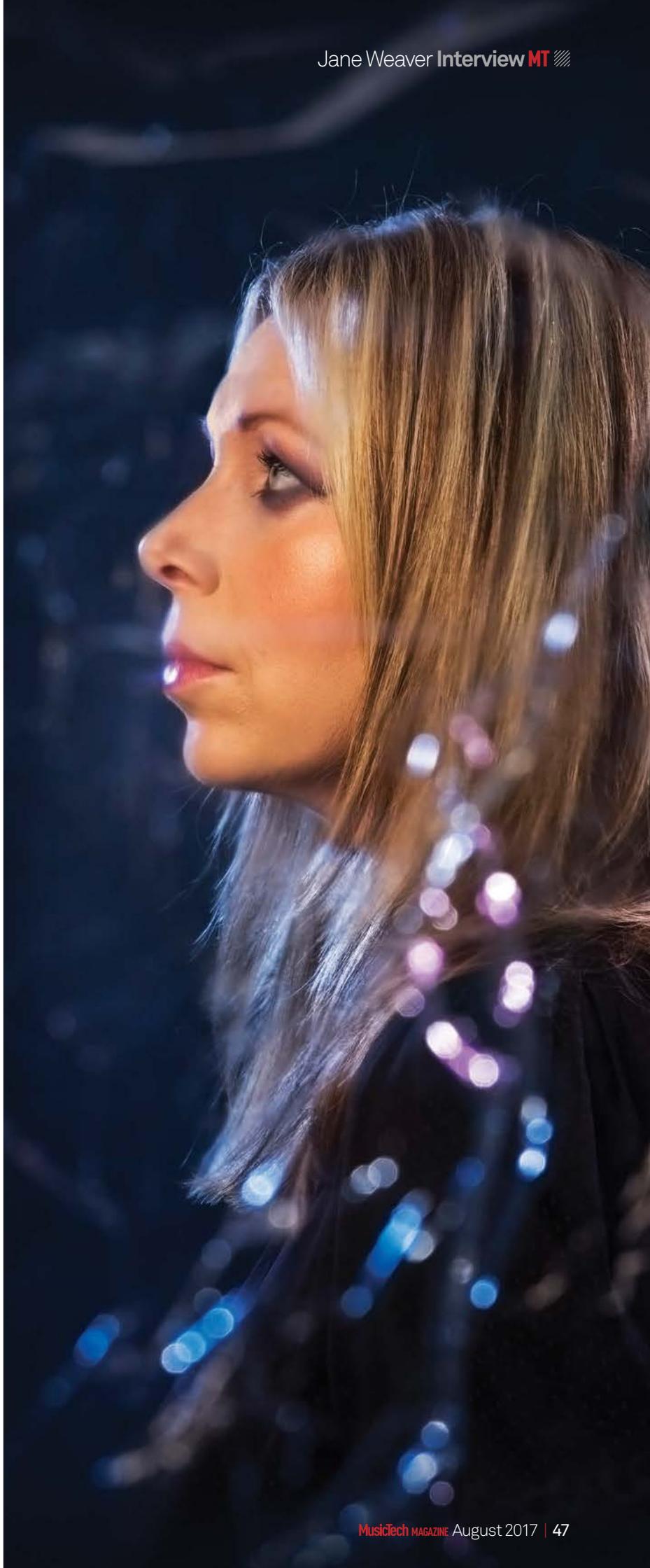
MT: What advice would you give to aspiring musicians?

JW: "Basically, I'd say just take no notice of the music world outside, get your head down and do the work!"

MT: So what's next for you?

JW: "Well, lots of live shows, hopefully... I'm also trying to finish a soundtrack project that I'm recording with the band." **MT**

Jane Weaver's new album *Modern Kosmology* is on sale now. Head over to <http://www.musictech.net/2017/04/jane-weaver-news> to watch a full video interview with Jane in the studio.





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MT Modular Monthly Workshop

The art of DAW and Eurorack integration

Part Two



Our series on Eurorack integration continues – and **Dave Gale** grasps the nettle to consider some of the best routes to get your Eurorack into your workflow. This month, MIDI starts the clock rolling...

Any Eurorack user will agree – we’ve all spent hours tinkering away, with the electronic-music equivalent of a garden shed, making wonderful noises and then standing back to admire the beauty. If I’m honest, I like to leave a supposedly useful and complex patch until the next day, to see if my clear ‘morning head’ will feel the same as it did the night before (which is a great trick for checking back on compositions and mixes, too). But all being well, it will be as good as I remember it, and I’ll want to do something with it.

Leaving the DAW open

For me, this means working more towards the use of a DAW – as it’s this world that I feel offers me the potential to really craft my sound into something ‘produced’. I look on at the masters of the Eurorack craft, wondering how they can manage to get things to sound so polished without the use of modern production tools. It’s possibly due to my nature that I

like to have control over my work, with the ability to recall it accurately, and that’s what most DAWs offer.

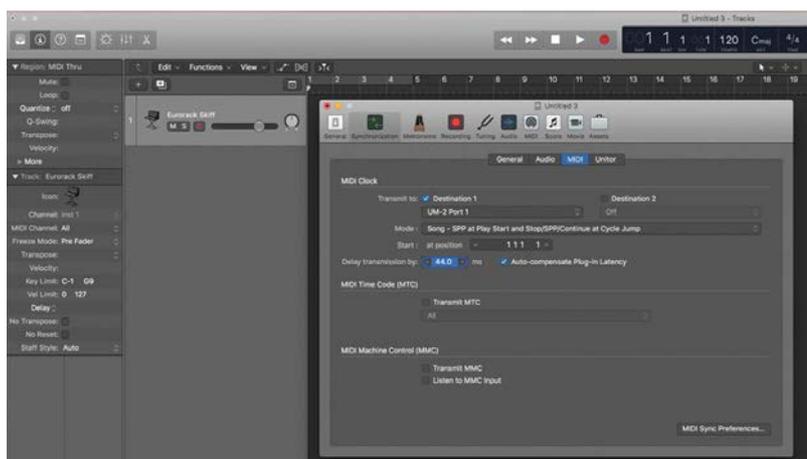
Eurorack is predominantly a mono-based sound form. Just about all audio signals are based around single audio lines, which means that tools will often be used to thicken signals into a stereo domain. This might include a mixer – either within the Eurorack or external – and often the use of some form of FX processor, again either in the rack or not. In recent months, I’ve noticed how certain stompbox effects such as the Eventide H9 have become popular, yet within the standard DAW, the user is likely to have a huge arsenal of FX available. Still, the acronym ‘DAW’ remains a dirty word in some Eurorack circles...

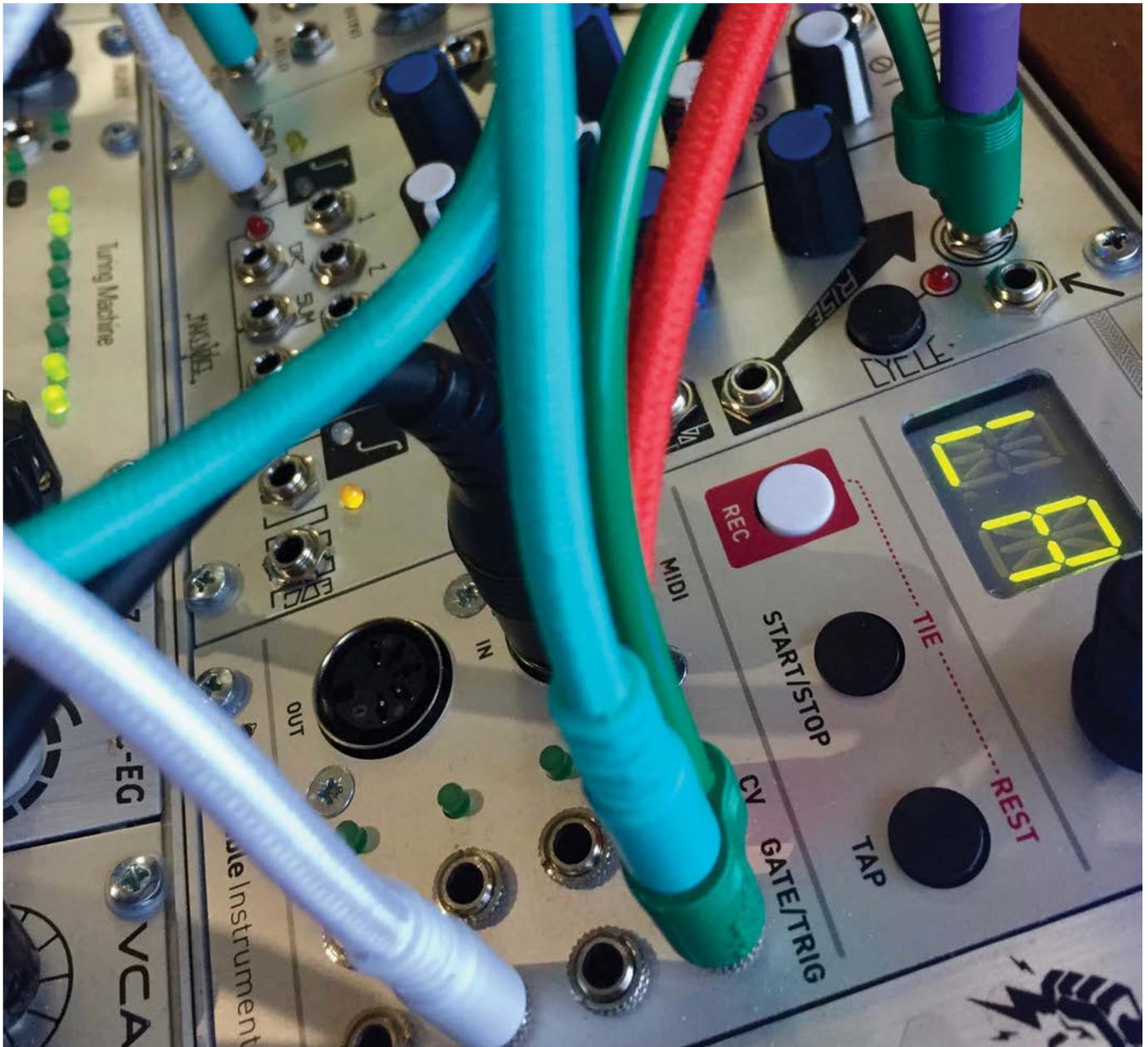
I tend to take a far more relaxed approach to this. It’s worth remembering that you’re most likely going to want to get your music out into the world at some point, so it stands to reason that you will have to enlist the computer to help at some point. It’s a little like the Mac versus PC argument; it really doesn’t matter what you do, or how you do it, as long as it works for you and gives you the results you desire. So with this in mind, let’s look at the first step to getting full DAW integration by enlisting the help of a clock via MIDI, and exploring some of the best devices for the task.

The MIDI clock

The altogether most reliable method of clocking a DAW to your Eurorack’s sequencer will be through the use of a dedicated MIDI-to-CV converter. As well as offering the ability to trigger notes directly from your DAW and controller keyboard, many Eurorack-based MIDI-to-CV converters will translate a MIDI clock, from your DAW, into an appropriate pulse that can be used to clock a Eurorack sequencer and more. This method could be considered a shade more reliable, and won’t require any ghost tracks to be assembled.

BELOW: The MIDI Clock setting in Logic, sending to a Eurorack Skiff. The Delay Transmission option can be used to compensate for an over-eager Eurorack performance





ABOVE: Mutable Instruments' Yarns, all patched up to send a clock to the Turing Machine

All DAWs offer a preference for routing a MIDI clock to a MIDI port, and it's easy enough to delve into your DAW's MIDI settings to ensure the clock is both active and heading for your Eurorack. One small pitfall may be to do with how tight the Eurorack clock is to your working track, and this is where most DAWs will offer a Delay Compensation option specifically designed to add a small delay to the sent MIDI clock, so your Eurorack will play in time with your DAW. It'll be instantly obvious if things are out of sync, so just nudge the delay in tiny chunks until your Eurorack is sitting with either your DAW's metronome or track. We could go into great detail with numbers here, but I like the idea of considering 'feel'. You might find that it sits better on the 'back' of the time, so use your ears and not your eyes, until it feels just right.

From the many MIDI-to-CV converters out there, the MIDI 3 from either Studio Electronics or Pittsburgh Modular offers a sensibly priced solution that'll send a clock to your chosen device. Thanks to some small button presses, the clock can also be divided to offer

something suitable for all occasions. The MIDI 3 also offers arpeggiation possibilities, as does Yarns from Mutable Instruments which, in true MI-style, offers an abundant amount of functionality in one module. It can even be turned into a basic oscillator, if you get bored with its purely MIDI-based functionality.

CV CONTROL FROM YOUR DAW

If you have a DC-coupled audio interface, you could take advantage of Spekro Audio's CV Toolkit software. The concept is to allow the software, which is available standalone, to send CVs out of your computer, via your interface. This will place easy control of your modular right at the very heart of your computer, and allow for easy clocking of systems as it will directly talk to your DAW using either MIDI clocking or Ableton Link, with the ability to offset clocks – often a required attribute. Talking of Ableton, CV Toolkit is set up to communicate directly to Ableton Push, making it good for placing your modular in a Live-based setting. The only downside is you'll need a DC coupled audio interface, such as a MOTU, RME

or the newer black-fascia Universal Audio Apollos. See also the many Expert Sleepers hardware products designed to allow CV control, often from your computer. In tandem with this, the Expert Sleepers Silent Way AU-based plug-in allows control of CVs. It can be used in any AU-compatible DAW. Again, you'll need a DC-coupled audio interface, or an ES-compatible Eurorack module; the tradeoff will be the ability to play and control your Eurorack from a channel, right in the heart of your DAW. Moving to this route and method may be a tad more fiddly than just using a MIDI-to-CV converter, but this way of working is elegant – and if you already have a DC-coupled interface, it'll be very cheap to do.



ABOVE: The Kenton Modular Solo offers MIDI, clock and more CVs than you can shake a stick at

The Kenton effect

We can't delve into the world of MIDI to CV without mentioning the company that's really the world leader in this realm – and that is Kenton Electronics. Started by John Price back in 1986, the original manifesto of the company was to MIDI-up and retrofit pre-MIDI equipment, to allow for integration into the new world order that MIDI was offering to the studio musician. MIDI retrofits started to become available for all the classics, and for machines that were monophonic, Kenton offered MIDI-to-CV boxes that would not only allow for basic note production, but also offer varying degrees of auxiliary control, sometimes with additional sockets available. My original Roland SH-101 benefitted from having both modulation and filter sockets fitted, meaning that I could happily control both of these elements via MIDI, via a dedicated MIDI-to-CV converter box. These are still available, in various sizes and designs, to suit all needs and requirements.

The Kenton Pro Solo Mk2 and USB Solo offer simple and convenient solutions for MIDI-to-CV conversion and, as implied by the names, one operates via a five-pin MIDI connection, and the other via a USB connection directly from a computer. Both boxes are very similar in design, offering both pitch CV and Gate, along with an Auxiliary CV output to control other elements on a synth, such as filter or modulation.

If you want to get a little more serious, the Pro 2000 Mk2 offers two channels of pitch CV and Gate, along with a further six assignable outputs. These can be assigned to all manner of duties – most notably, either CV or gating, meaning that it is possible control up to five synths via CV/Gate from a single box, or route CVs to

other desired destinations, on a synth or modular. As if this weren't enough, there's a whole host of other inbuilt options, such as LFOs and a Sync 24 output, but one of the most useful is the expansion port, which will allow the fitting of further capabilities. Kenton's legendary easy access to Roland's DCB protocol means that it's very easy to control polysynths, such as the Juno-60 or Jupiter-8A; polyphonic control made easy, on pre-MIDI synths! Or you can utilise the KADI expansion to control a KADI-fitted device, such as a TR-606 or 808.

Kenton's reach to CV and Gate does not just extend to external boxes, though. The Modular Solo is Kenton's Eurorack CV/Gate interface which, in tune with its other designs, packs a very big punch in terms of additional functionality. I particularly like the fact that the Modular Solo can be very simplistic to use, if so desired, with clock outputs immediately available from the front panel along with the expected CV/Gate outputs, and a further four additional CV channels. But under the hood lurks portamento control, plenty of clockable LFOs and many other really useful features that you don't realise you need until you find out how indispensable they are. A case in point is the ability to start a LFO with a key trigger; very much taken for granted in the standalone synthesiser world, but a useful feature to have available in a Eurorack.

However, the final part to the Kenton jigsaw is not so much about how it looks or the feature list, but the accuracy. From my early days of using a Roland SH-101 and System 100m with a Kenton Pro 2000 (which I still have and which works perfectly after over 20 years), it's the accuracy of both timing and tracking that are, for me, the real forte of the Kenton designs. Trigger and response times are about the best out there in the marketplace, and where some other cheaper MIDI-to-CV interfaces struggle to play in time, the Kentons just do what you need them to do, with an absolute minimum of fuss. I always knew that the timing of my 101 basslines was tight, and thanks to the Modular Solo, those timings can be integrated into Eurorack, and that's a very wonderful thing indeed.

The latest news from Kenton is that the Modular Solo is now available in a 'vintage black' design, so if you have a row of modules that look dark and classic, your Kenton can, too, while the original silverface design is still available. Kenton also has a new 'Pro CV to MIDI' device, which is designed to take your CV signals in the opposite direction. This could be especially useful if you have a sequence in your Eurorack that you wish to run into your DAW, or if you have a ribbon- or theremin-based controller which you'd like to convert to MIDI.

Never a company to stand still, Kenton has many other products in development. The number of times that Kenton has got me out of a MIDI-or CV-shaped hole, is too often to count. I think of them as the Swiss Army Knife of MIDI-to-CV companies, with far more to offer besides... **MT**

NEXT MONTH

Next issue, we get hands-on with some of those sounds and sequences and concentrate on getting them into the DAW, using MIDI to generate a clock. However, to maintain some balance, we speak to Eurorack supremo Scanner, aka Robin Rimbaud, to see how he approaches his Eurorack workflow.



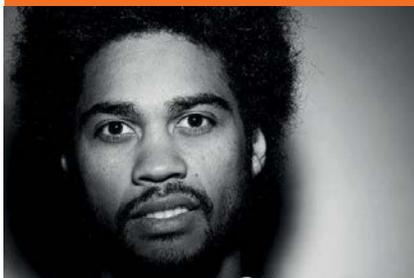
PUNISH

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STAFF PICK

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III III Ableton Live Workshop

Control your hardware drum machines and synthesisers *from Ableton Live*



Everybody reading this has – or will eventually have – a hardware synthesiser or drum machine that they want to hook into their Ableton Live rig. **Martin Delaney** explains how to link it with Live...

Live works brilliantly well as the hub of a studio or stage rig that features hardware as well as software instruments. And it goes beyond that, into effects, VJ equipment, lighting, even guitar amps. For the walkthrough steps here, I've use the Novation Bass Station, a classic 1990s rack synth (there's a current v2 of the keyboard Bass Station). The Bass Station has MIDI in and out, and audio outputs, so it's a good example of a typical keyboard setup. More modern instruments might connect with USB for audio or for MIDI, and include their own dedicated editor software, which affects how they integrate with your DAW. Our walkthrough focuses on Live's External Instrument device, but don't forget there's the External Effect device as well, which configures in the same way, but is designed to feed audio from Live out to, and back from, hardware audio effect processors.

While you're in Live's MIDI Preferences, make sure you've configured the correct inputs and outputs, and disable any that you don't need – this can solve problems with more elaborate hardware rigs. You can also choose to have Live sync from the hardware, if you think you'll get better results that way. It's also possible to build a rig that includes MIDI clock travelling between hardware and software, as well as iOS devices responding to Ableton Link on a wi-fi network or ethernet. Instrument racks let you build complex setups that use sounds coming in 'live' from hardware instruments, as well as sounds from plug-in synths, even stacked and playing together.

I have external instrument device presets that load with limiters and compressors in the chain; nice and easy to recall, and easy to move between different machines, if necessary. I love using hardware synths for their sonic character and distinctive workflows, but other than capturing the raw sounds, I prefer to do everything else with Live. Working on a computer display is faster and more controllable. You might disagree and have your own level of hardware/software preferences, but that's the point – with Live you can set it up the way you want it. I mentioned arpeggiators for beats in the walkthrough, and that's something I've been playing around with a lot lately, especially for triggering beats in real time from a keyboard. Create an instrument rack with, say, four chains of arpeggiators, and set each one to trigger notes over a certain range – most likely just a single note, so each arpeggiator is triggering only one note on your drum machine. Try it – it's very cool, even with software drum kits.

Sync isn't always about MIDI. If you're using older gear, or some new modular components, you might find CV/Gate (control voltage) is required instead of MIDI. Live can't handle this directly, but you can buy a dedicated converter device – Kenton produces a range



HARDWARE VERSUS SOFTWARE

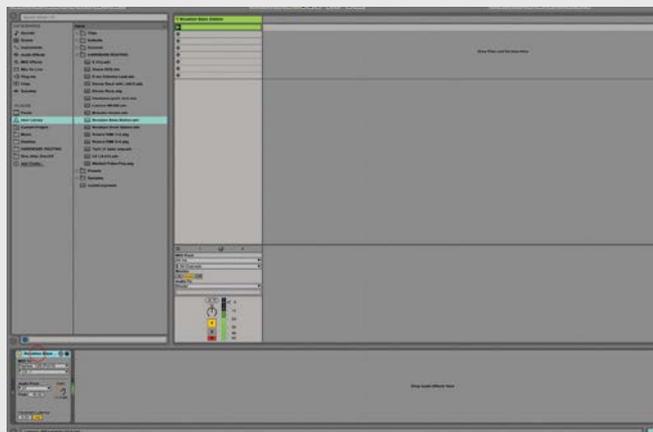
You can adopt extreme positions if you like – only using hardware versus only using software. Both are valid, but the truth is combining the two will always be the best option. You're always going to need a computer at some stage in the production and recording process, and your sound and

working methods will benefit from adding some choice bits of hardware to your setup. You can do everything with a computer, sure, and that used to be a really exciting option. But these days, there's so much great (and affordable) hardware around, it's a waste not to use it!

MT Step-by-Step Control your hardware



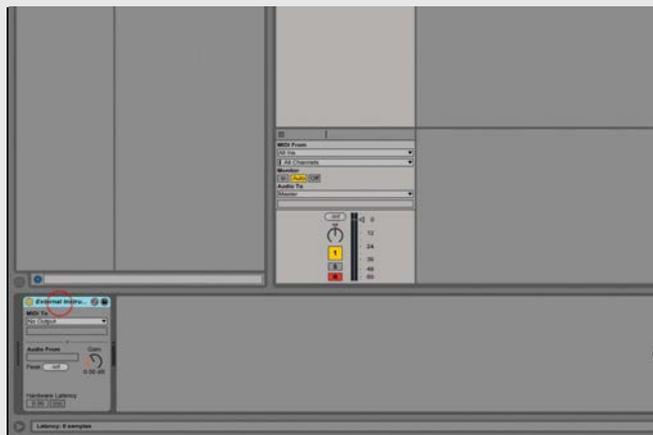
01 For this tutorial, you'll need some kind of external hardware synthesiser module or keyboard or a drum machine, an audio/MIDI interface and, of course, Ableton Live running on a Mac or PC.



02 Our aim here is to use Live MIDI clips and effects to trigger notes and control messages to our hardware and to receive, process, and record the resulting audio coming back in.



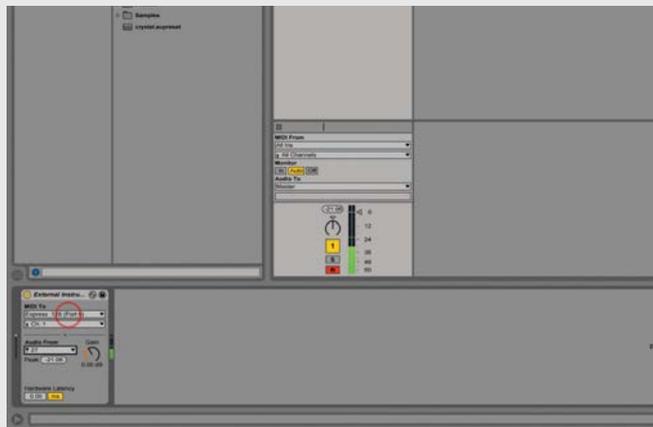
03 Modern synths use USB as well as standard MIDI/audio, but let's work with the more generic/classic options. Connect your hardware's audio outputs and MIDI inputs to your interface.



04 Open a new Live set, go to Session View and add the External Instrument MIDI effect into a MIDI track. This device will send MIDI, but also receive audio within one track.



05 Open Live's Link MIDI Preferences and make sure your interface is configured correctly, receiving MIDI Track, Sync, and Remote, messages from Live. Close Preferences after you're done.

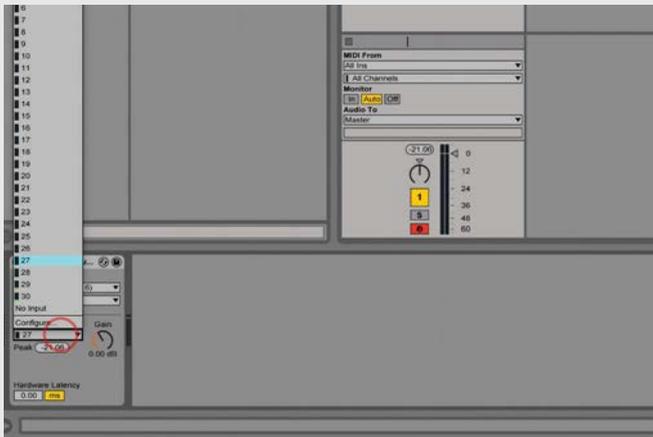


06 As we're using the External Instrument device, set up the routings there, instead of in the In/Out View. Choose the MIDI channel required by your hardware (you might have to look in its manual).

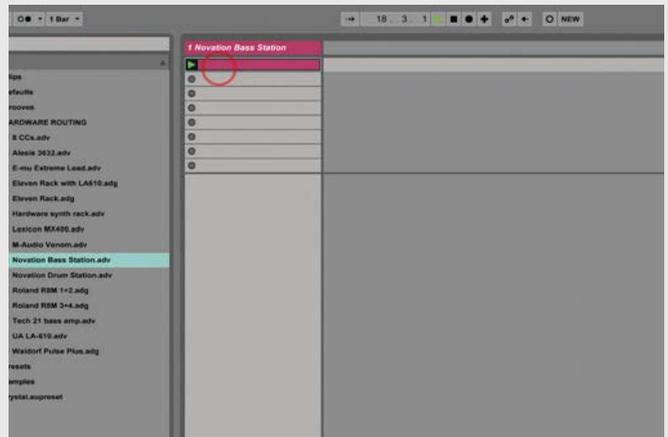
of these, including the Pro Solo MkII, or use something like the Arturia BeatStep, a very well spec'd hardware sequencer, which includes CV as well as MIDI output. Some devices use other means of communication, like the Teenage Engineering Pocket Operator range, which will sync to an audio signal sent from your DAW. It's crude, but it works. When you're sending MIDI from Live's MIDI clips, it's not just about notes and CCs; a

MIDI clip can send Program and Bank changes, which are used by hardware to load different presets or different sequencer patterns. You never have to load the wrong sound by mistake – whatever order you play your clips in, the instruments are always going to load the right sound. Some MIDI hardware (the Elektron Machinedrum, for example) includes an additional MIDI Thru connection, facilitating the daisychaining of more →

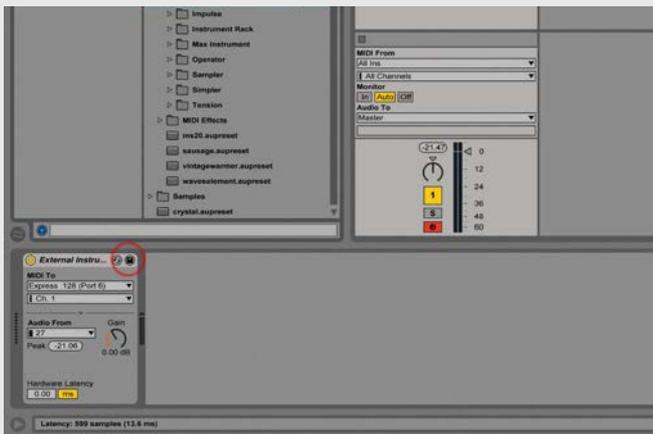
MT Step-by-Step Control your hardware (cont'd)



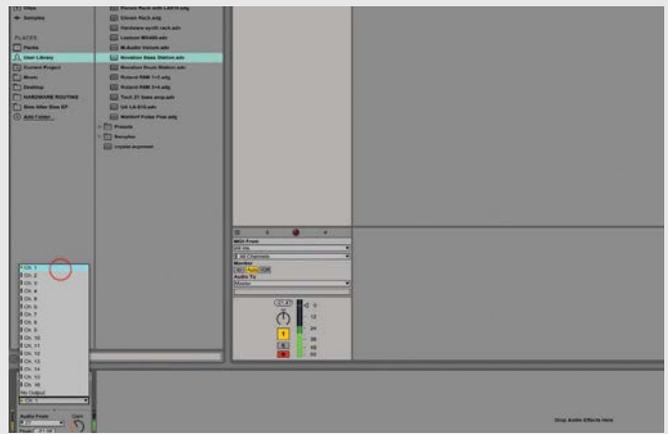
07 Then choose the correct inputs on your audio interface to receive audio back in. You can set input gain levels within the device. Don't let those levels peak red!



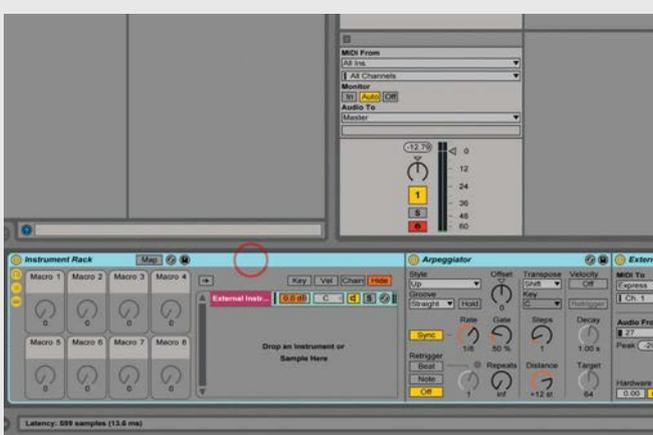
08 Once this is set up, you can use notes in a Live MIDI clip, or play a connected keyboard or even Live's virtual MIDI keyboard, to send notes out and see if you're getting a response.



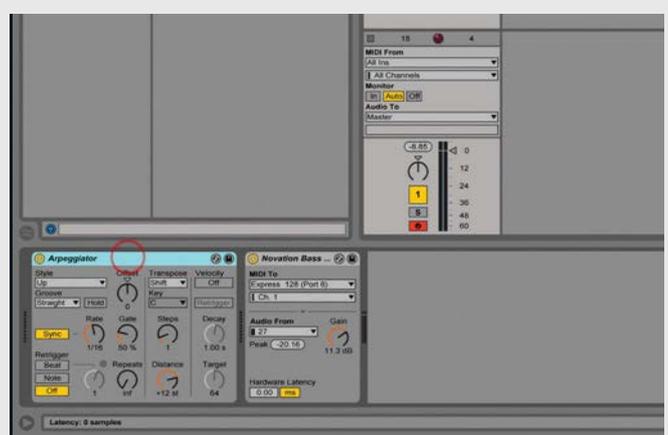
09 A lot of MIDI hardware has an activity indicator, so you should be able to see if it's receiving MIDI, if you can't hear anything, which is useful for troubleshooting.



10 Once this is working smoothly, save the audio-effect device as a preset, named after the piece of hardware (that's how I do it, anyway). That means it's easy to recall the setup at any time.



11 Your hardware routing is then recalled and configured instantly, just like an instrument plug-in. If you put it into an instrument rack with Cmd-G, you can then add MIDI and audio effects, too.



12 Live's MIDI effect devices are awesome and they'll really expand what you can do with hardware. The arpeggiator and chord devices can add a lot of movement to keyboard parts.

hardware, effectively using the first device as a MIDI hub. This simplifies the addition of more bits of hardware without kludging around with hubs or MIDI mergers and splitters.

By using hardware sound sources in your Live projects, you're compromising the mobility of your project. You can't simply close your laptop, go to another

location, pop it open, and have all your sounds in place – the hardware isn't there! There's a workaround, though: you can freeze the tracks, which will require Live to scan through the project in real time to create an audio file 'preview' version of each external instrument track. Now you can open the project on another computer with the audio from your synths or whatever intact – you just →



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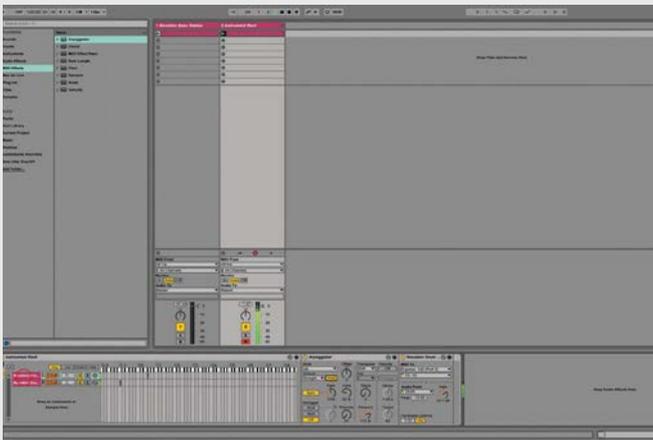


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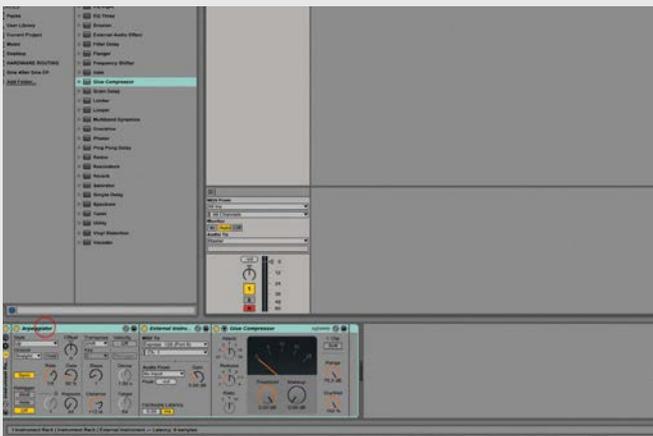
MT Step-by-Step Control your hardware (cont'd)



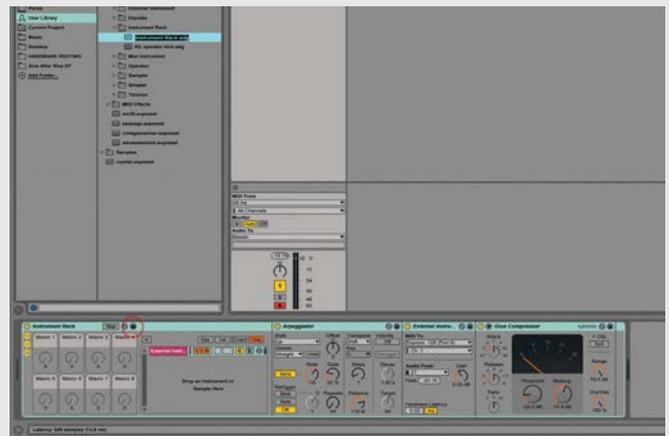
13 The arpeggiator can also do some interesting things with drum machines, giving you a new way of creating beats and breaks. A few arpeggiated drum parts in a rack can sound amazing.



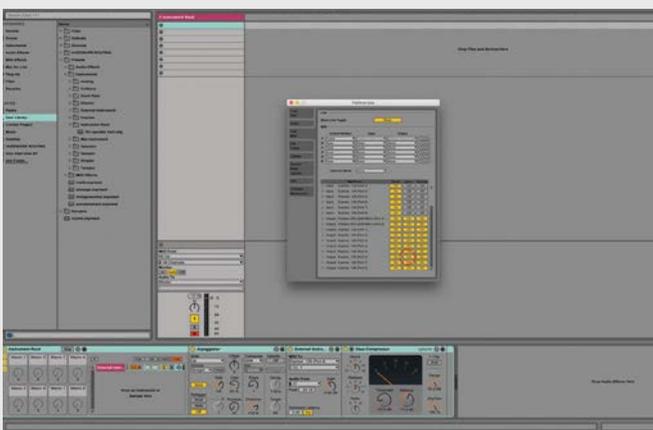
14 Of course, you can apply audio effects to the incoming audio. You might use more 'showy' effects such as filters and delays, or else more practical ones like EQ, utility, limiters and compression.



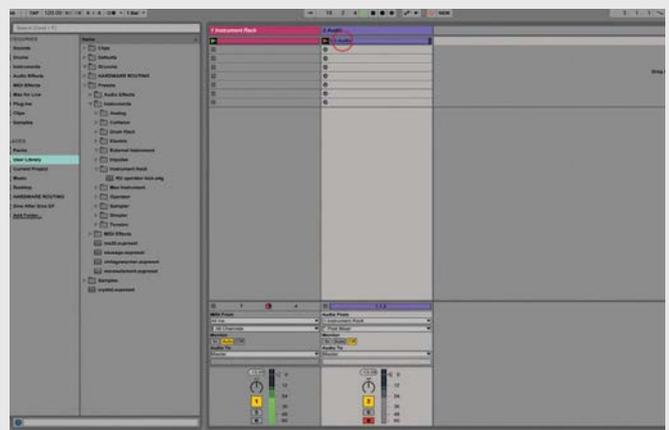
15 You can end up with a recallable rack that contains routings to and from your hardware, MIDI effects, audio effects and any third-party plug-ins you want to add as well.



16 You can then save all of this again, and recall it all later, ready to rock – that's as long as you remember to switch on your hardware, that is...



17 If you're sending sync from Live to your hardware, then any time-based parameters on it will follow along with Live's timing, whether they be beats, onboard arpeggiators or delay effects.



18 We're using a MIDI track for this, so you'll need an audio track to record it. Create a new audio track and use the In/Out View to select the source track, then arm it.

won't be able to edit or interact with it. If you want to create permanent undo-able audio versions of the tracks, use Flatten after freezing, to embed those parts into an audio track and discard the original MIDI material and hardware routings. Because Live's scanned through the project for the freeze process, flattening is a fast final step. When I've done this, I've either created

a new version of the project, containing the frozen and flattened material, or I've duplicated the external MIDI instrument tracks before freezing and flattening them, so I have every option for going back to them later.

There can be bumps along the way, but if you have the will and the gear to make the connections, you can get Live talking to almost anything... **MT**

Equalisation in Logic Pro X



Logic's powerful and intuitive set of equalisation tools can transform the timbre and spectral effectiveness of your mix.

Mark Cousins is the equaliser...

Consider this – if you could produce a mix using only EQ or compression, but not both, which would you choose? I'd argue that while compression is beneficial to a good mix, equalisation is essential. Maybe two sounds are 'fighting' in the same part of sonic spectrum, or your DI'd bass needs extra kick around 80Hz – it's hard to imagine creating a mix without turning to EQ throughout the process.

Logic includes fully featured equalisers. More than just treble and bass controls, these can unlock a wealth of sound-shaping potential, from M/S equalisation through to matching two differing sound spectrums. Equalisation in Logic comes in four principal forms – Channel EQ, Linear Phase EQ, Match EQ and Single Band EQ. The equaliser you'll use most of the time is the

Channel EQ, with its two filters, two shelving controls and four bands of fully parametric EQ. One significant advantage of using the Channel EQ is the clear and informative FFT display, which gives an accurate visual representation of the sound spectrum you're trying to process. Tools like this can help you unlock your hearing's true potential.

Looked at spectrally, you should start to see a few key points. Firstly, you should be able to spot the key fundamental frequencies – so, in the example included on the DVD, we can see strong fundamental frequency on the kick drum around 60-80Hz, the fundamental on the snare around 200Hz and a harmonic on top of that around 500Hz.

Above 1KHz, the sound spectrum gets increasingly complicated (with lots of extra harmonics) although these tend to be of a lesser amplitude than initial harmonics. This is where a sound's 'texture' can be heard; a big part of its timbral characteristics.

ZX spectrum

The key to using EQ is understanding where these frequencies sit in relation to the harmonic spectrum and how we can exploit them to our best advantage. Cutting or boosting around the fundamental or second harmonic can help change the instrument's presence in the mix, especially on low-end instrumentation like a kick drum or bass guitar. As you move up the sound spectrum, though, equalisation becomes more about broad 'colouristic' tones: so harshness and edginess might be tamed by a cut at 2KHz, while a boost about 10kHz can add a bright sheen.

For the six parametric bands, the parameters include the amount of cut or boost, the frequency, and the bandwidth or Q of the boost. The amount of boost tends to be subtler in the additive range (usually around 3-6dB or so), while cuts can be applied much harder (up



GAIN-Q COUPLE STRENGTH

Like all good EQs, Logic's Channel EQ uses Gain-Q Coupling to ensure that there's some proportionality between the bandwidth and the amount of boost/cut. Imagine a small boost of 1dB with a relatively wide Q – as you raise the boost, the wide bandwidth becomes increasingly disproportionate, raising a large part of the entirety of the sound spectrum. Gain-Q Coupling, though, creates a more focused bandwidth the more you cut or boost, maintaining the perceived bandwidth of the cut/boost. The result of Gain-Q Coupling is a more natural-sounding EQ. Note you can also adjust the Gain-Q Coupling – between Light, Medium and Strong, as well as three flavours of asymmetrical EQ – to suit your needs.

MT Step-by-Step Equalisation



01 The simple yet useful subsonic Low Cut setting reduces unwanted low-end. If you're not intending to apply other EQ on the same channel, the Single Band EQ is a good CPU-light option.



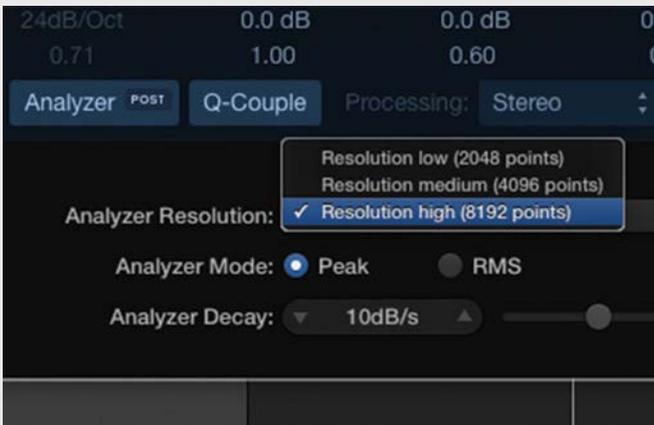
02 Single Band EQ has a range of creative applications. The High Cut setting can be used as a form of low-pass filtering, with the Slope setting the strength of filtering and Q Factor working as resonance.



03 This setting is similar to Little Labs' Voice Of God processor, which uses a resonant high-pass filter to increase bass energy. Set the Frequency to around 40-60Hz; increase Q Factor for added weight.



04 The Channel EQ is Logic's main equaliser, with eight bands to play with. The Analyzer is also useful to guide your EQing, even if you're clear about the principal frequency areas and how they sound.



05 The Analyzer's resolution can be sharpened to identify individual harmonics within the spectral profile. Click on the left axis to shift up or down, making the harmonic spectrum easier to see.



06 One useful trick with the Analyzer is to reduce decay to 0dB/s, so you'll see the cumulative spectral display over time: which, again, makes harmonics and frequency peaks all the more noticeable.

to 10dB or more). The Q or bandwidth is also easy to see and adjust visually, often contrasting between broader sweeps of colour; with a wide Q, and more surgical adjustment using a narrower Q setting.

Another key area worth bearing in mind is the frequency area beneath the fundamental frequency. This is an area that's easy to overlook, but this 'top-and-tailing' (especially in relation to the low end)

can really help a mix remain uncluttered. A simple Low Cut – either using the lowest filtering band on the Channel EQ, or the Low Cut setting on the Single Band EQ plug-in – can really aid the clarity of your mix, arguably defining sounds that have no interest in the low-end of the mix – like an acoustic guitar, for example – against instruments that have a stake, such as the kick drum or bass.



MT Step-by-Step Equalisation (cont'd)



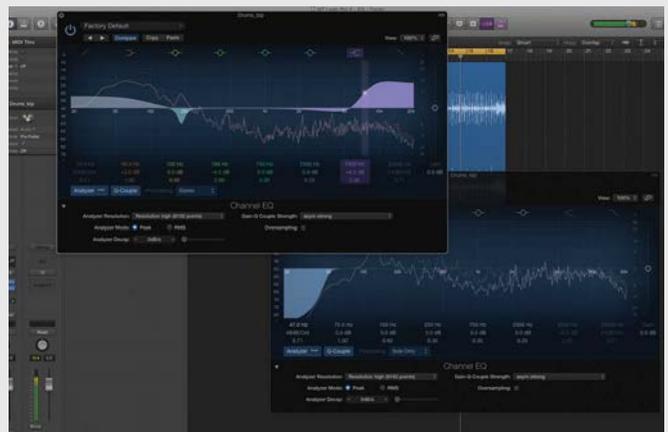
07 The snare's fundamental at 200Hz is dominating. By positioning the frequency of band 3 and the amount and bandwidth of the cut, you can effectively reduce this specific harmonic.



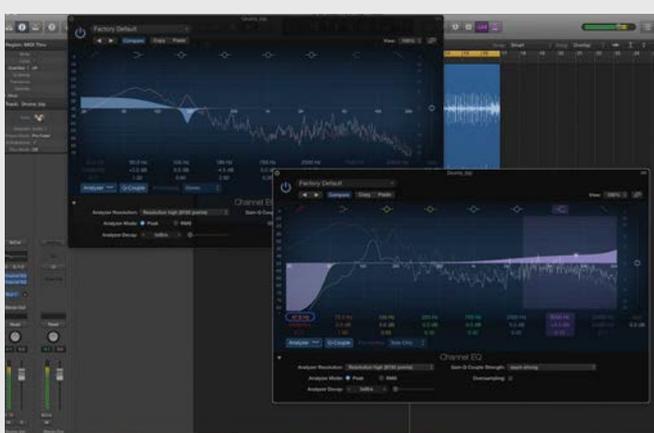
08 We can see the frequency area of the kick, which we can raise with the low shelving. As the Analyzer is post-EQ, we can see the effect; you'll need to restart the song if you're still on the 0dB/s decay.



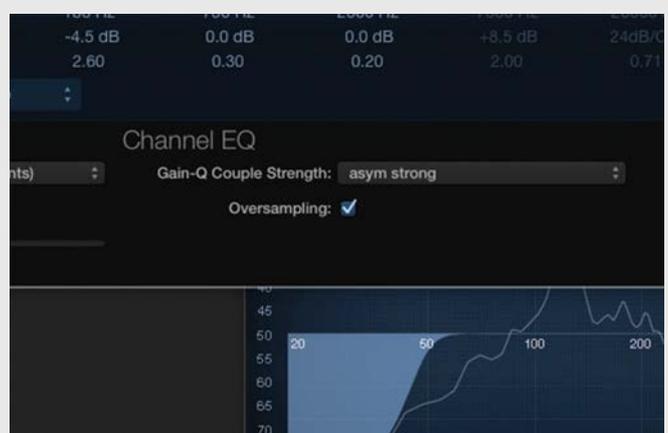
09 At either end of the EQ are low and high-pass filters. We've created a second instance of EQ and set it 'Side Only' processing. The result is a mono-focused low-end that stays planted in the centre.



10 Back with high shelving, note how Q affects the type of boost applied. A high Q setting creates a plateau-like sharp boost, preceded by a small amount of dip – for a more exaggerated boost.



11 A low Q setting produces a broad, Baxandall-like EQ. On the side channel, this broad boost can help lift the air around the sides of the drums. A higher frequency avoids over-pronouncing the mids.



12 Remember to check the Oversampling option. Oversampled EQ will take an increased hit on your CPU, but means better handling of additional high frequencies created by the process of equalisation.

Another interesting tool is the Match EQ plug-in, which is a way of imposing the spectral properties of one sound on another. Match EQ offers a unique insight into the differences between two signals, as well as an alternative means of applying an EQ. Using Match EQ, can be an interesting way of discovering the timbral differences between your mix and a commercial

recording or for matching the tones of electric guitars. For the most predictable results, it helps if there's a degree of similarity between two sounds, rather than them being completely unrelated. Once Logic has analysed the Source and Reference, it will generate a new Match EQ profile that can be applied using various degrees of strength. Often a 'hint' of the matched EQ →

CREATE THE FUTURE



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MT Step-by-Step Equalisation (cont'd)



13 The Linear Phase EQ is a more transparent equaliser that doesn't introduce any phase inconsistencies. Settings on either EQ can be moved between plug-ins using the copy-and-paste functionality.



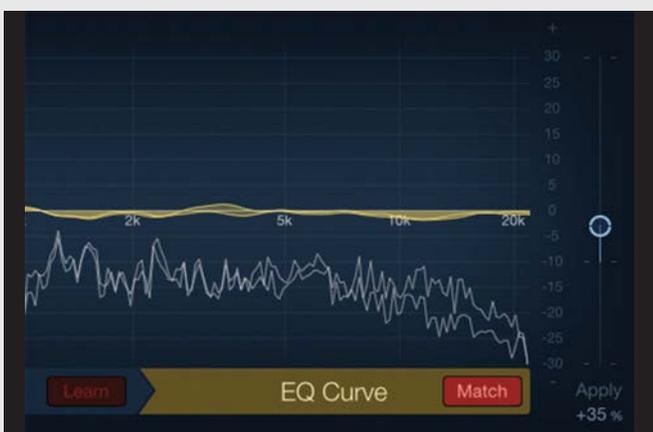
14 Rather than creating your own EQ curves, use Match EQ to make timbres match more closely. Start by creating a reference spectrum from the 'Reference Drums' audio file, using the drop-down.



15 Move over to the Current Tab. Press Learn and play through eight bars of drums – just enough to build a profile. As before, you can slide up the scale to more clearly see the upper harmonic spectrum.



16 Pressing the Match curve will create a customised EQ Curve that imposes the frequency characteristics of your Reference file onto your source. Try to find sounds with similar frequency characteristics.



17 The Apply slider changes the amount of EQ. Sometimes, Match EQ can be too dramatic, so taming the amount can be a way of imparting the flavour without changing the taste.



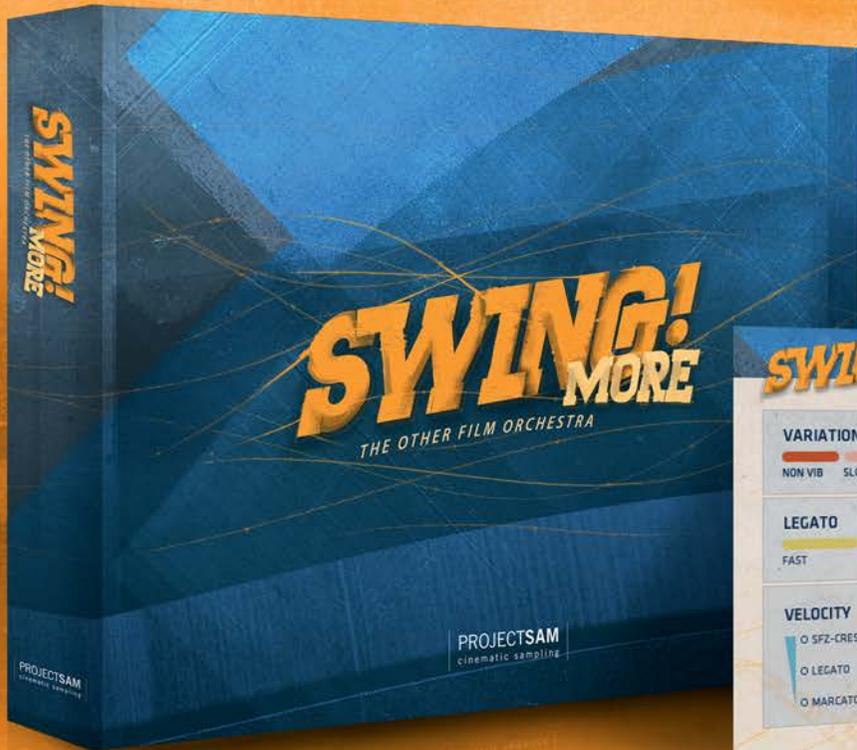
18 For stereo operation, try experimenting with channel link, which sets interdependency between channels. Linked applies the same profile to both channels; un-linked matches each exactly.

setting might be all that's required. Understanding both how sounds work, and how equalisation can be used to modify the spectral balance, takes time and practice.

Logic's equalisers are perfect tools to develop your hearing and refine your understanding. Take time to fully exploit the visual-analysis tools, and let them guide your ear in respect to improving your hearing. **MT**

This tutorial is endorsed by Point Blank Music School, which specialises in courses on production, sound engineering, the music business, singing, radio production, DJ skills and film production, all run by top British music producers and media professionals, with regular visits from legends in music and media. For more information, go to www.pointblanklondon.com

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10 Tips for buying secondhand gear

Studio gear can be expensive, but it can also be quite addictive. So with so many vintage pieces out there and bargains galore to be had, the secondhand route can be a great way to get deals.

But it does have problems – or not, if you follow these tips...



01 MAYBE BUY NEW!

Come on, let's face it, we all like buying studio gear – but it can be (and usually is) more expensive than we'd like it to be. The first thing to determine before you buy secondhand is that the gear you are looking for is *really* a used bargain. That is: can you actually get it, or its equivalent new, for not a lot more (or even less) money? In the music-production world there are some great pieces of vintage gear to be had, often at extortionate prices. This has meant that many companies are now producing great hardware emulations of this classic gear at a fraction of the cost of the secondhand originals, meaning buying new is probably a better route. So there are some superb hardware emulations of classic gear from companies including Warm Audio and Lindell, while companies such as Neumann have started production of their classic mics again so you can buy the vintage gear... new!

Not all people are criminals and you will get a bargain

02 CONSIDER THE SOFTWARE ALTERNATIVE

Got a vintage hardware synth or compressor on your mind? Want to slot it in your studio? Well, how's about getting its software equivalent instead? Pretty much every piece of classic studio hardware (and a load of gear that will never be considered classic, for that matter) can be had in software. Okay, it's not the same thing as holding and using a piece of vintage loveliness... but it's a heck of a lot cheaper and the results are often as good as the real thing.

03 SET A BUDGET

Okay, we hear you, you want the real thing, and software is not an option. In that case, set yourself a budget. Find out how much your target item sells for in a variety of stores – that is by private seller, by shop, by online retailer or by online auction site – and fix a budget based on the prices you're prepared to pay. Try and stick to this budget when visiting specialist stores. Prepare to haggle to stay within your budget



TIP 1: Companies such as Warm Audio make new versions of classic gear for a fraction of the price

TIP 2: Does what you want exist in software? This software version of the DX7 is arguably better than the real thing

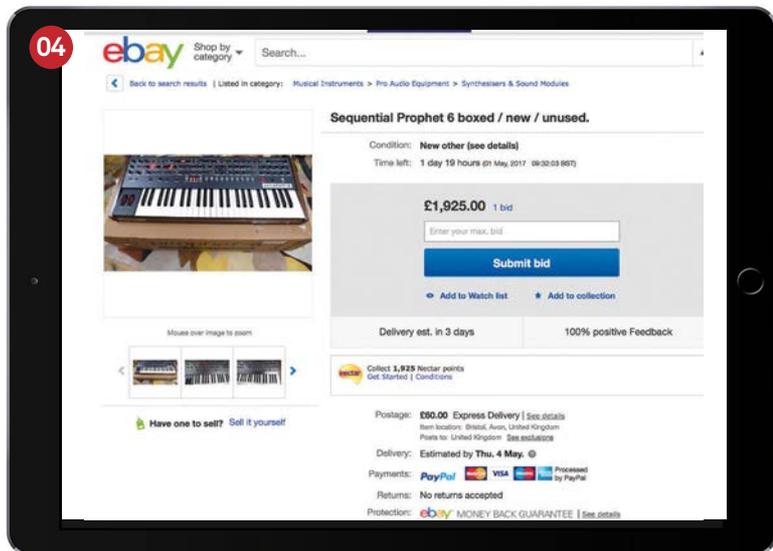
when you are face-to-face in a shop (secondhand often has a higher margin, which the retailer can play with) and when bidding online, stick to your guns. You will eventually get what you want, within a reasonable budget (unless you're after a Yamaha CS-80, that is – in which case, prepare to sell your house or kids...)

04 ASK TO SEE AND ASK AGAIN

It's always good to ask questions about specific items on auction sites before buying. Are all the keys and pots in good condition? Are there any scratches? Can you see photos if this is the case? Generally, sellers are only too pleased to be honest about something like this, in order to avoid returns issues down the line – but do ask the question if it's not been made clear. First, though, check to see if the same question has been asked before – sellers can get frustrated by people asking the same question before checking. And, of course, there's nothing better than actually trying so...

05 TRY IT OUT BEFORE BUYING

Probably the most important tip here is to try something out before buying it. In a specialist shop, this is easy, as you



/// You'll have an **awkward goodbye** to deal with, **but you'll save money** in the long run ///

are right there in front of it. With an online auction site, it's considerably less straightforward. If the buyer lives close by, of course you should ask to try the gear out. If they're far away, ask for a demo over Skype, or a video of it in use. If you part with your cash and your gear doesn't work down the line, you may not be covered. Which leads us nicely to...

06 CHECK OUT THE RETURNS POLICY

Successfully returning gear if it doesn't work and getting a refund can be hit-and-miss affair, particularly if you're buying it from an ad placed in a local paper or a shop window and then said item goes wrong a day or two later. Buy a piece of old gear from a shop and you'll often get some kind of timed guarantee, often three months rather than the year you will get as standard for something new. Buying through sites such as Amazon is also easy, as they tend to favour the buyer and refunds are simple. Specialist gear sites like reverb.com have very comprehensive rules for both buyers and sellers that should keep returns difficulties to a minimum. Whatever your buying outlet, check its returns policy.

07 GET TO KNOW THE GEAR AND THE BUYER

Researching the gear you are buying is essential. What does it tend to sell for? What problems are associated with it secondhand? But also, take time to get to know the history of the *actual item* you're considering in a shop or auction.

Tip 4 and 7: Ask questions, get to know the gear and the buyer on sites like eBay

Tip 6: Sites like reverb.com make buying and selling easier, with a clear returns policy

How much has it been used? Has it been gigged? Or just used in a studio or (hopefully) hardly used at all? By getting to know the gear, you'll get to know the seller a little too, and hopefully gain a level of trust. An obvious point: be sure that they have a good reputation, too – most sites like Amazon and eBay have seller ratings, so you can gauge their selling history.

08 GET THE GEAR IN PERSON... IF YOU CAN

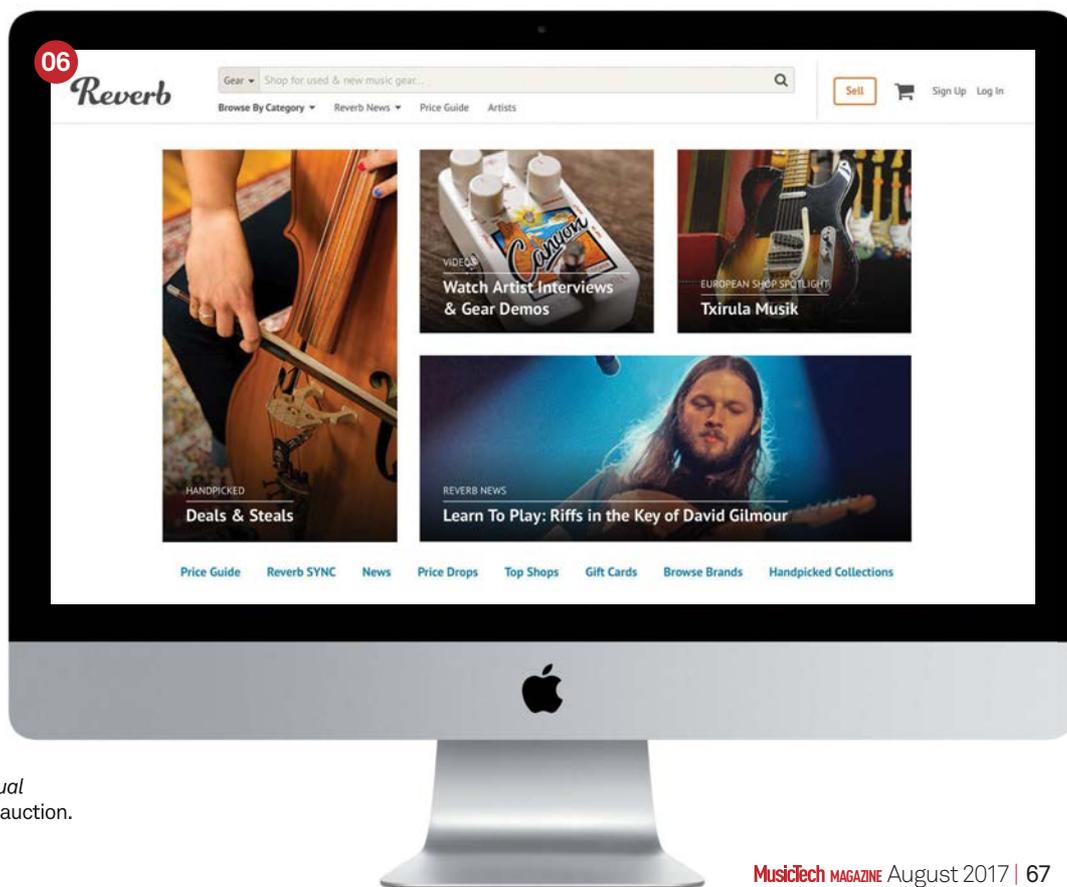
If you're buying certain items – that CS-80 again – you'll need to check shipping details carefully, as it might be impossible to have it sent by conventional means. Sending gear can be costly, too, so make sure that it's clear who is paying. The best solution is to go and pick the gear up yourself, as it allows you to try it out before parting with your cash, although if something's wrong with it, you'll have a wasted journey on your hands and a slightly awkward goodbye to deal with. But what the heck, you'll have saved in the long run...

09 GET THE TRANSIT INSURED... AND CHECK IT

Not enough sellers make the most of the option to get gear insured while in transit between seller and buyer, or at least they don't make it clear whether this is covered in the shipping price. So make sure it's clear who is paying for it, as insurance cover is essential for a lot of the more fragile secondhand items. If insurance is not included in the seller's shipping fee, then ask to go halves or for them to pay. And when the gear arrives, check the packaging for item damage while the courier is with you. You can make claims later, but if the item turns up in a few pieces, refuse to accept it.

10 DON'T WORRY, COUNT YOUR SAVINGS

There will always be nightmare stories that circulate about buying secondhand gear – unfortunately, stolen goods are all-too common and there are always going to be scammers out there – but try and proceed with honesty and dignity. Be friendly, be open and you'll get the same back. Not all people are criminals, and you will end up with a bargain if you're persistent and follow the rest of the tips here. Make the effort to be just as good when you're selling your item on, and you'll find that what goes comes around and the world will be a happier place. Oh yes it will... **MT**



MT Lead Review

Hardware ■ Software ■ Mobile Tech ■ Accessories



NOVATION Peak

Details

Manufacturer
Novation
Price £1,250 (street)
Contact Novation
01494 462246
Web www.novationmusic.com

Key Features

- Hybrid synth
- 8-note polyphony
- Monotimbral
- 512 presets (with 256 user)
- Sources: 8 voices each with 3 oscillators, noise and ring mod
- 1 filter, 2 LFOs, 1 amp and 2 mod envelopes/voice
- Chorus, delay and reverb
- 3 filter types with pre-overdrive, post-distortion
- Huge modulation options
- Size: 233 x 464 x 70.3mm

Novation's Peak stole the show at this year's Superbooth. **Andy Jones** reviews this hybrid synth with digital control and effects, but very much an analogue heartbeat and sound...



The Novation Bass Station II was released about four years ago, just at the point when hardware synths truly came back in vogue – perfect timing on Novation's part, as it turned out. It was, and still is, a magnificent little beast and for £399, well and truly put hardware back in the line of sight for people willing to spend that on a plug-in instrument.

At the time, there was a rumour – possibly started by me – that an eight-voice version would be next. It made sense, after all. Four years down the line and we now have Peak. To be fair, it's not *really* an eight-voice Bass Station, but it does share much of that synth's heritage and sound. Chris Huggett, the man behind the Wasp, the OSCar and Bass Station was a design

consultant on Peak and, as we'll see, there's a big analogue sound here, although with more digital input at its heart than Bass Station had.

The signal path on Peak starts with the (digital) Oxford Oscillators – or

oscillators. There are three of these (plus noise and ring mod) per voice, and a maximum of eight notes of polyphony, depending on the voices used per sound. The signal path takes a true analogue route through overdrive, filter

■ We have something of a **hybrid synth** on our hands, although it does **scream analogue** ■

'analogue sounding' NCOs (Numerically Controlled Oscillators) – which Novation says run at such a high clock rate that you'd be hard pressed to tell them apart from true analogue

and distortion sections and the effects are pure digital, so you can see we have something of a hybrid synth on our hands, albeit one that screams analogue in terms of sound and looks.

The price point is high – or at least you might consider it that – but there's a lot of hardware with specs similar to these for a lot more money, so let's see how Peak competes.

Peak in practice

Unboxing Peak, we have a solid desktop unit that feels like a great-quality product. The 40-plus rotaries feel good, not too loose, and have centre reference points on suitable parameters (coarse and fine tune, for example). It's very well designed throughout, with a logical layout, so you get the main controls and screen top left and the signal flow of the synth engine starts from oscillators through to effects flowing left to right

utilise an organ draw-bar method to quickly transpose your octave (16 being the lowest, 2 being the highest). There are coarse and fine-tune rotaries, the aforementioned Waveform select buttons and then dials to adjust how the frequency of each oscillator is modulated by both Mod Env 2 and LFO 2 Depths. Interestingly, you can also modulate all three oscillators simultaneously with LFO 1 as part of the extensive modulation options that Peak has – more on these shortly. Finally in the Oscillator section, a Shape amount dial can be adjusted manually or set to be modulated by either the Mod Env 1 or LFO 1 sources. Select a Square wave on your LFO 1 and a low

then the screen reverted back to the Oscillator 2 function automatically, as I had the Osc button lit. It's a clever process and surprisingly useful in practice, as it makes stepping to and working within different parts of the synth very intuitive.

We've touched on the two LFOs and what they modulate already and their controls are identical – four types to choose from over three ranges and dials for Fade Time and Rate. But just to reiterate, LFO 1 modulates the *shape* of each oscillator (when selected as the source) and LFO 2 modulates the *pitch* for a vibrato effect. LFO 1 will also modulate the filter frequency.

Within the mixer section, as well as adjusting these three oscillators' levels, you can bring some dirt in with both noise and Ring Mod options. Linked to the Mixer section, the Envelope area allows you to control the note Attack, Decay, Sustain and Release (ADSR) values – how a note's volume changes over time. There are two additional mod envelopes, too. Again, number 1 applies its envelope to the shape amount of each oscillator and also the filter frequency. Mod Env 2 modulates the pitch of each oscillator. So the Peak rule is simple, really: 1 = shape, 2 = pitch!

The Filter section has loads of options. Choose between LP, BP and HP types and adjust the overall frequency and resonance. You can choose between a 12 and 24dB slope, which determines how steeply the filter rejects or allows frequencies to pass (24 is steeper, so more severe in action). Again, we've touched on the modulation options. The filter frequency can be modulated by a combination of LFO 1, the Amp Env and Mod Env sections (with a switch selecting either of the latter two).

To finish off my overview, there are a number of effects. The Overdrive control works pre filter and the Distortion dial post filter, but they're both within the analogue signal path, so add lots of power and crunch respectively when needed. Three further effects – chorus, delay and reverb – add some incredible →

LEFT: Shame you don't get the rack with Peak, but it is a very cool-looking synth nonetheless

BELOW: Lots of connections around the back, including CV Mod In and a full suite of MIDI and audio

/// The oscillator section is both straightforward and detailed – there's a lot to mess with ///

(with the two LFOs top right).

The unit is sadly not angled for desktop use, so sits rather flatly – although this doesn't detract too much from screen or control visibility. The racks shown in the main picture do not come with Peak, which is a shame, as they look very cool and angling it as shown makes it much better to control (I put Peak on some books to angle it).

So, to the synth engine itself and we have those eight voices, each with three oscillators, ring mod and noise sources. With the oscillators, you can choose from four standard waveforms and then a further 17 that include some fairly obvious Random and Chord waveforms; some instrument-based ones (Electric Piano, String, Organ and so on); plus some which are less obvious (Harsh, Wobbler and Tubey). Tubey, for example, adds a slight distorted effect, while Octaves pitches things up and Zing seems to bring the upper mids through for more presence.

On the far left of the Oscillator section, you get range options that

rate to hear this dramatic octave up and down action and gradually increase the rate and the sustain on the Mod Envelope for some tearing analogue sonic action.

It's credit to the designers that the Oscillator section is both straightforward and detailed. There's a lot to mess with your sound at source, but it's pretty easy to get your head around what is modulating what, because the screen works so well in the context of what you are doing. As you work with the synth, the screen latches onto whatever you are dialling to show the change in parameter value, so you can clearly see what is going on.

The cool thing is that after you have edited a dial elsewhere, the screen reverts back to whatever section of the synth you have selected above the screen (from eight options). So, for example, I was stepping through the waveforms for Oscillator 2, made a quick change to the Fade Time on LFO 1 to see what it did (it adjusts how long it takes for the LFO to get in gear) and



Novation Peak overview

1 SOURCES

Three Numerically-Controlled Oscillators (NCOs). Choose Sine, Saw, Triangle, Sawtooth plus 17 wavetables. Ring Mod and noise sources are in the Mixer section

2 MAIN SECTION

The screen works well in conjunction with the select buttons above it, which latch it to an area within Peak's architecture

3 THE LFOs

With identical controls, you can choose from four waveshapes with both LFOs. However, LFO1 is generally assigned to Oscillator shape and LFO 2 to pitch



4 THREE ENVELOPES

Peak offers a 'standard' ADSR Amp Envelope and two Mod Envelopes. Again, number 1 controls the oscillator shape (and filter) and 2 its pitch

5 FILTER SECTION

Lots of options in the Filter section, with three types to choose from, plus an interesting pre-filter Overdrive option that adds oomph

6 EFFECTS

Simple controls, maybe, but a huge and varied sound can be applied to any of Peaks patches with these digital effects

→

drama to the overall sound. They're digital, but the reverb especially is astonishing – set at maximum, it just goes on forever. There are simple controls to select each effect, with three types for both reverb and chorus, three Level rotaries and a handy Sync option for the delay.

And there's more

If you think that's a lot of modulation and that the 'science bit' is over, think again, because Peak comes with a whole Modulation Matrix area – selected by the Mod button just above Peak's screen. In case you don't know, a Modulation Matrix is where you can select a source on a synth – LFO 1 or

the mod wheel, for example – and get it to affect or modulate a destination (ie, the pitch or shape of an oscillator).

Peak's Matrix has 16 sources (plus CV input) and 37 destinations. That is an incredible number to have, especially given you can have 16 different 'Slots' (or combinations) of these set up at any one time. For any of these 16 Slots, you

Okay, okay, I've modulated long and hard now, I know that. But it's important to get across that you get loads of these options available on the top layer of Peak and then a whole world of others just beneath the surface. It's really the heart and soul of the synth, is also why and why it sounds so good. Oh yes, how it sounds...

You can have 16 slots modulating the same destination... if you are mad

can have two sources modulating one specific destination, with the sources multiplying their effect together. If you want several Slots all modulating the same destination, you can do that, too. You'd be mad to do it, but you can...

And while it would be great to have a kind of Battleships physical-peg matrix on the synth (as Arturia has with its MatrixBrute) Novation has made the process incredibly simple. Simply select a Slot from 16, your two sources and one destination, plus the depth of each one – and the screen makes this very easy to do – and you're there.

Peak in sound

Stepping through the 256 presets (there's room for another 256 of your own) and you soon realise that this is a synth's synth. By that, I mean that it goes for the synthetic jugular with a set of crowd-pleasing sounds that you'd expect from an analogue beast. So less on the emulating acoustic instruments front, thank you very much, and more in the way of squelchy basses, racing arpeggiations, dreamy pads and cutting leads. All of those are here in abundance and rather great they are, too.

→

Alternatives

I've reviewed some incredible Dave Smith synths over the last couple of years and it's testament to Peak that I'm putting these in as alternatives. The OB-6 and Prophet-6 are true out-and-out analogue synths with digital effects and they both sound incredible. However, with the UK pound getting a kicking in the exchange rates, you'd be hard pressed to get either for less than a couple of grand (in the OB-6's case, it's well over). I'm not mentioning the Teenage Engineering OP-1 as an alternative – it's nothing like Peak – but I bloody love it! The Moog Sub 37 is also a synth that I tested and has real character and similar sounds. It's around the same price as Peak and comes with a keyboard, but lacks the polyphony. Dave Gale tested the Arturia MatrixBrute I mentioned in the main text and that is a monster synth, with that plug'n'play 16x16 matrix. But it does weigh in at £1,750; way more than Peak. So while Peak is expensive for a Novation product, in its respective marketplace, Novation has come in with a reasonable price for it after all.

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ABOVE: MIDI and CV connections allows Peak to be part of your modular world

→ You may initially think that all of that modulation I've been banging on about isn't that evident on more of the onboard sounds. There are so many options beneath Peak's bonnet that I expected to hear more movement and more bonkers-ness up front in the first bank. But don't fret, as there is some on display, just later in Bank B ('Plankton 1' and 'Its Brave 2 Hold').

I think Novation has led with the synthier 'normal' stuff, which is no

are a great addition, too. I'm stunned at how good the reverb is. Put it on maximum time and level and you have a tail that dreams on and on – instant ambience. The delay really does add a lot to many presets, too – again, very simple, but effective.

I also like the Animate option, too, first seen on the Nova range. Press either button during an arpeggiation – a sound like the 'Running Man' preset – and each button modulates a

products competitively in whatever markets they are in, and while Peak is more expensive than any other Novation product, you could argue that the company has again priced it well. That's because it sits within a high-end synth market in which you could easily spend a couple of grand on a synth with this much power, so in that sense, it could be seen as a bit of a bargain.

Peak has excellent and varied sounds and effects and more than enough options to synthesise, create and modulate your own. It's years of fun and creativity in one box. **MT**

▨ You're never more than a couple of twists away from dirtying something up ▨

surprise, and what we get here is often sublime. The atmospheric stuff is instantly inspiring – check out 'VHS Pad', 'Relax (Autoplay)' and 'Fema' and, as I said, there's plenty of bombastic stuff for EDM producers everywhere ('Dark Bark', 'Temple' and 'Sprinkler').

What I also really like about Peak is that you're never more than a couple of twists away from dirtying something up. Of course, the Noise source is great for this, but so too are the Distortion and Overdrive dials – they really can mess something up... nicely! And the effects

different parameter, so 'animating' the sound somewhat, giving it a different emphasis, effect or, say, more bottom end. It's a great option for performing with and adding variation.

Conclusion

Overall, then, that is a great set of varied sounds from a machine that is full to the brim with features and options. The sound this thing makes can be totally analogue if you want it to be and totally off the wall, too – it is incredibly flexible. Novation always seems to price its

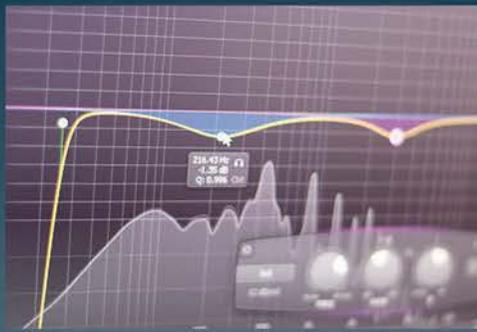
MT Verdict

- + A synth that has lots of depth, but is still relatively easy to use
- + Exceptional modulation options
- + Super sound
- + Lovely and simple effects
- + Does have a real analogue sound
- + Great screen/workflow combo

- Can't angle it and there's no stand included

Novation has almost managed the impossible with Peak, cramming so many features in one box, but making them all accessible and straightforward at the same time. And it sounds bloody great, too.

9/10



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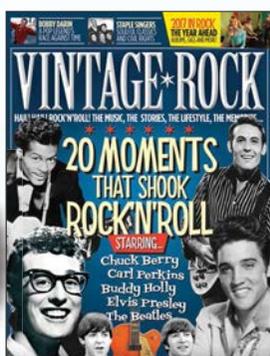


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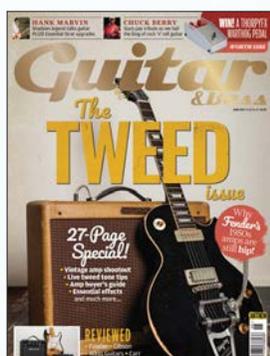


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ASTON MICROPHONES Starlight

Aston Microphones' new small-diaphragm condenser comes equipped with a laser. **Mike Hillier** takes aim...

Choice
9/10
MusicTech

Details

Kit Starlight
Manufacturer
 Aston Microphones
Price £349 each, or
 £699 for a matched
 pair with Rycote
 suspension mount
Contact via website
Web
www.astonmics.com

Key Features

- 20mm cardioid condenser capsule
- 3-mode voice switching; vintage, modern and hybrid
- Switchable high-pass filter (Off, 80Hz and 140Hz)
- Switchable pad (0, -10 and -20dB)
- Laser targeting system
- Stereo pair comes with Rycote suspension mounts

When Aston Microphones launched the Origin and Spirit large-diaphragm condenser microphones last year, the company made a huge impact on the recording industry. The microphones became instant favourites among many professionals, winning shootouts against mics that could easily have an extra zero or two in the price tag. This year, Aston's making waves again with the newly released Starlight, a small-diaphragm condenser with tricks up its sleeve.

Rock star

Starlight is small-diaphragm condenser microphone with a cardioid capsule inside of a custom sintered brass head. The microphone has three voicings – modern, vintage and hybrid – as well as a switchable high-pass filter, and pad. But the striking feature on the Starlight, at least at first glance, is the laser targeting system. Lined up alongside the body of the microphone, and on-axis with the capsule, is a Class 2 laser, designed to quickly identify exactly where the mic is pointing.

The laser might seem like a gimmick (it isn't all that hard to know what you're pointing a mic at), but there are various use-cases for which the laser can actually be incredibly handy. Firstly, for touring engineers, the laser lets you mark off the point on an instrument that sounds best,

into anyone's eyes, or at any aircraft. And, more importantly in the studio, the laser should be turned off when recording. This is because the laser circuitry can cause some low-level noise when engaged.

Interestingly, when we spoke to Aston about the Starlight, it didn't

/// The **laser** is **no gimmick** – there are various **use-cases** where it's **incredibly handy** ///

knowing that each night on the tour that you always point the mic at the exact same spot. Add in a second mic, using a spaced-pair technique, and you'll be able to know that both mics are pointing at exactly the same spot – which, if they're also the same distance from that spot, should ensure the two mics remain perfectly in phase – at least to any signal coming from that one spot.

Aston is quick to point out that, like any other laser pointer, you definitely shouldn't point the laser

into anyone's eyes, or at any aircraft. And, more importantly in the studio, the laser should be turned off when recording. This is because the laser circuitry can cause some low-level noise when engaged.

Interestingly, when we spoke to Aston about the Starlight, it didn't

spend all that long talking about the laser, but seemed far more interested in the sintered brass head. Sintering is a process by which the brass is formed under extremely high heat or pressure, resulting in small spheres of brass almost like tiny ball bearings. This process, Aston tells us, ensures a remarkable linear off-axis response in the capsule, as well as being considerably stronger than a traditional mesh head. Coupled with the mic voicing, the circuitry for which is placed between the capsule and

the PCB, this should make the Aston Starlight a compelling mic. But the proof remains in the pudding, and we reserved judgement until after we tried the Starlight against some of our own small-diaphragm condensers.

Star guitar

For our first test, we used a single Starlight on an acoustic guitar using the Modern voicing. In this setting, the Starlight sounded bright and lively. The bottom end was present, but not flabby, but the finger noise was perhaps a little edgy – a problem with small-diaphragm mics. Switching to the Hybrid voicing didn't seem to help much; the finger noise was still a little edgy, and we felt this voicing had a similar bright openness as the Modern voicing. In fact, it wasn't immediately obvious what the difference was between these two voicings, until we compared some big open chords. With these, the Hybrid voicing started to outweigh the Modern voicing, producing a bigger, more full-bodied guitar tone than the Modern voicing.

Switching again to the Vintage voicing, the difference was more obvious. The lively, open sound was replaced with a more neutral tone, with far less attention brought to the fingers and more to the rounded, wooden tone of the instrument itself, while on open chords it sounded even more full-bodied than the Hybrid voicing, still without sounding flabby at the bottom. For solo guitar, the Vintage voicing was easily our favourite; it lacks some of the hype of the other two voicings, but rather than force attention, this voicing leaves the listener to decide where to focus.

Next up, we compared the Starlight with a Neumann KM 184, a staple fixture in studios around the world. Using the Modern voicing, the two microphones were almost impossible to tell apart. If anything, the Starlight has a little more bottom-end than the KM 184, but the articulation of notes wasn't quite as detailed. However, the Vintage voicing still won us over with its more nuanced, balanced reproduction of the signal, at least for solo guitar. As part of a busier mix, the extra top end of the Modern voicing might help the instrument to push through a little more clearly.

Five stars

One of the use-cases for the Starlight has to be as an overhead on drums. Small-diaphragm condensers are a common choice on overheads, although rarely a favourite of ours, and the laser targeting system on the Starlight will enable us to direct the two microphones to both be pointing exactly at the centre of the snare.

Of course, while this lets us know the two microphones are pointed at the same point, it doesn't ensure they're in phase unless they're also equidistant from the snare, but it's a start, and with a little old rope, or an unused mic cable, we were up and running. With a preference for less hyped overheads, we began on the Vintage voicing and were pleased with the results. The mics produced an extremely focused and detailed representation of the kit, with pinpoint stereo imaging.

The midrange was smooth, but lacked some of the warm, rounded sound we prefer on overheads – the

reason we'd usually go with ribbons. However, the top-end didn't have the obnoxious brittle cymbal smearing so common with lesser variants of small-diaphragm condenser. This was definitely preferable even to the KM 184, which had more crack to the snare than the Starlight (we cheated and used the same mic clips for the KM 184, thus benefitting from the same laser-focused positioning), but also more sizzle in the hi-hat, which needed some EQing to sit more easily in the mix.

Every studio needs a pair of small-diaphragm condensers, and by offering three voicings in the Starlight, Aston is making a solid case to be the first mic you reach for when you do. The mic has a fixed-cardioid pickup pattern, and we'd like to see at least omni-capsules offered at some point in the future, which should be fairly simple for Aston to do if there is sufficient demand, which would further enhance the usefulness of this already fairly versatile microphone. However, it's not obvious what use a laser-targeting system would be with an omni-capsule. **MT**

MT Verdict

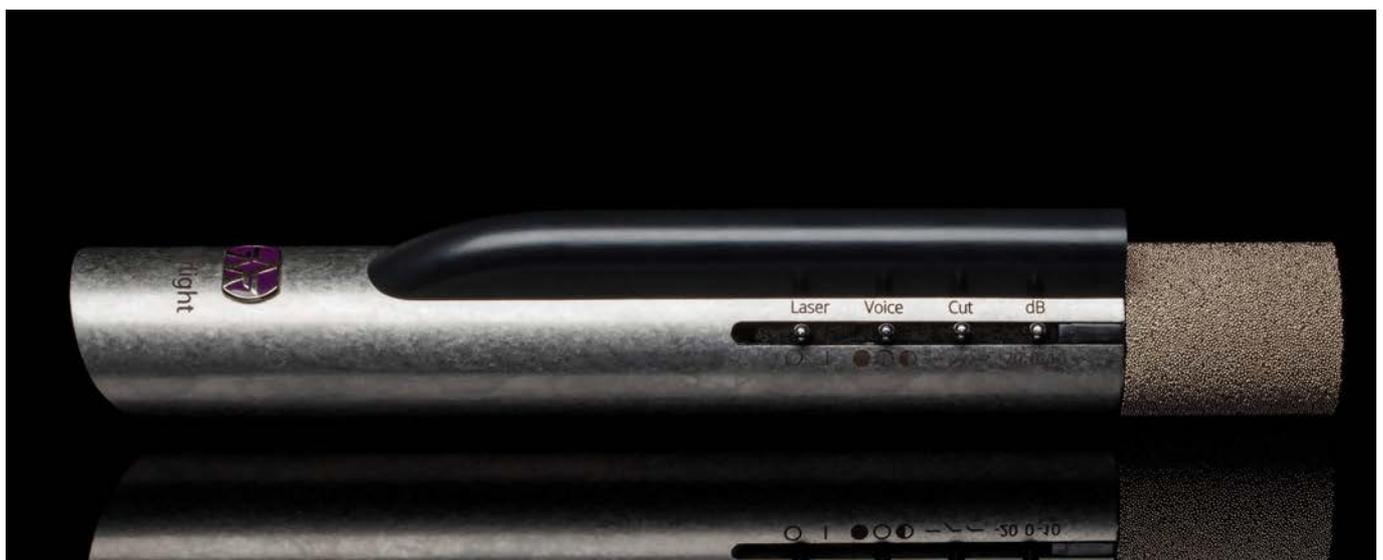
- + Three mics in one
- + Versatile voicings
- + Laser targeting system
- + Sintered brass construction

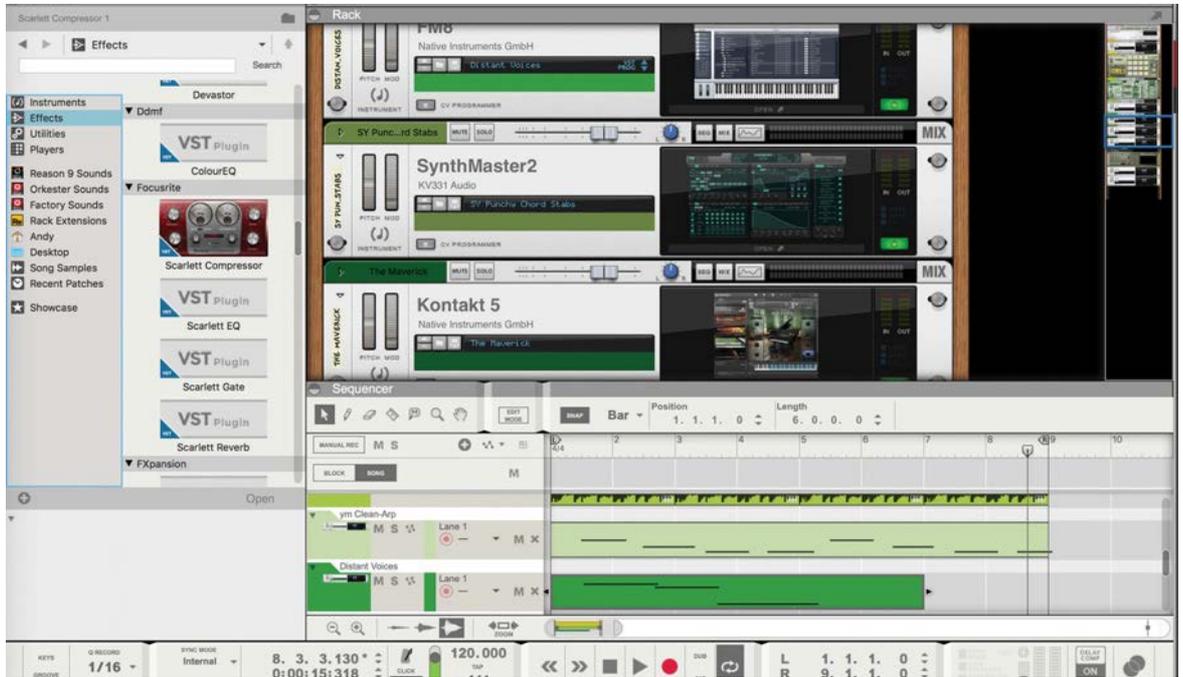
- Fixed cardioid pickup pattern
- Need to remember to turn the laser off!

Aston is taking the microphone world by storm, and the Starlight is sure to continue this trend.

9/10

BELOW: The Starlight's controls include manual laser control (completely cool) and a three-mode voice control





PROPELLERHEAD Reason 9.5

It's the news that so many people have been waiting for: Propellerhead has added support for VST instruments in Reason 9.5. **Andy Jones** is running out of analogies...



Details

Kit Reason 9.5
 Developer **Propellerhead**
 Price **9.5 is free for Reason 9 owners; v9 is €369; upgrade to v9 €139**
 Contact **via website**
 Web **www.propellerhead.se**
 System requirements **OSX 10.7 or later, Win7 or later – 4 GB RAM / 3GB hard-drive space**

You have to admire Propellerhead software. It doesn't like to rush, and it likes to stick with its guns. The company brought out Reason as a sleek, quick DAW that did everything on its own terms, and that won it a huge number of fans. It was one of the first full DAWs to be able to produce complete tunes in one go, as it came complete with its own software instruments. People loved it, but eventually, people wanted more.

Propellerhead listened and eventually added the audio that people were screaming for, albeit over a couple of separate updates. Then those damn people wanted third-party plug-ins, so the Props did it in their own Rack Extension way and some great third party add-ons were born.

Propellerhead has always held off from allowing third parties into Reason via the VST plug-in format. It wanted to shift its software on its own merits and Thor has always been regarded as one of the best synths out there and with the rest of the great instruments – Malström, Kong et al – why would

anyone need anything else? So for a long time, Propellerhead sat back. But now we get version 9.5 and guess what? Yes, it has support for VST instruments, which is potentially the most exciting news in music technology (this month

process and only rejected a couple of instruments that have also previously troubled other DAWs.

When you boot up Reason, the instruments appear as regular Browser items. They are in alphabetical order (by

It's like the music-technology version of when ***The Simpsons* met *Family Guy***, only better...

anyway) as, for the first time, you can use you favourite synths and plug-ins in one of the best environments for music making: the sleek and supercool DAW that is Reason.

Version 9.5 is free to Reason 9 users and it's a 200MB download to update. Boot 9.5 up for the first time and it scans for VSTs and quickly implements your collection. Mine is huge, as my drive is full of test software but, even so, it took less than a couple of minutes to

company name) beneath the Reason devices and Rack Extensions. Drag them into your Reason Rack and you're up and running.

The VSTs are shown as small icons with default VST logos in the Reason Browser. When dragged to the Rack, they load up as standard-looking Rack instruments at first and every VST instrument looks identical bar its name. Only when you click on the VST Plugin area to the right does the actual

instrument appear. However, once you click on the VST instrument to open it up fully, you get a Screenshot option at the top. Click it, and the smaller Browser graphic is replaced by a proper graphic of the VST, while the same graphic replaces the default VST graphic in the device's VST window (see screenshots, top right). These should load automatically in future songs, so you won't have to go through the process each time. And so to the VSTs themselves, and 'drum roll'...

They work!

Yep, simple: VST instruments in Reason 9.5 work. Phew. But that's not the end of the story, as it's the meeting of the mighty VST world – some 7,000 instruments and effects have been tested so far – with the sleek Reason world that is the real story here.

We are talking Thor meeting Absynth and Kontakt meeting Rack Extensions. Even the very words 'Battery meeting Kong' conjure up images of some kind of music technology-based Roland Emmerich film – this is huge stuff!

Then you can process all of your VSTs using Reason's effects and utilities. Okay, I'm stating the obvious, but until you start dragging and

chaining VSTs to effects and see them within your Reason Rack, you won't realise what a great meeting this is. You have Reason's fantastic virtual racking and workflow environment and all your favourite other bits are there, too.

And there are yet more options from perhaps less obvious sources. The first is by way of the Players introduced in v9 – the Dual Arpeggio, Note Echo, and Scales & Chords. These devices really do help you come up with instant ideas and are what Reason is all about – instant loops, melodies and riffs – and being able to apply them to your favourite VSTs is a boon.

Then there are the many and varied patching options afforded by Reason's flexible audio routing – flip the Rack and patch away, create your own modular system on screen with your favourite VSTs and Reason's incredible routing, CV and sequencing options.

There are even one or two surprise additions. There's an Automation option alongside that Screenshot option I mentioned earlier that, when clicked, brings up a new automation track for whatever dial you want to automate on your chosen VST. Similarly, a Remote option lets you assign a control to an external MIDI controller.

Conclusion

And that is pretty much it. There are almost endless combinations of Reason devices and VST instruments to discuss, plus all the freeware now accessible to Reason users. Really, everyone wins: and it's a free update to v9 owners. This update is big news: the great Reason workflow meeting the greatest instruments ever made. The world of Reason just exploded outwards and the Props, bless them, did it on a half-point update rather than going all out for v10. Like I say, you've got to love them. **MT**

MT Verdict

- + Your VSTs in that great Reason environment
- + They work!
- + Pretty seamless integration
- + You can go modular-crazy with your instruments
- + It's great to use Reason's many utilities and routing options

- The graphic representation of the VSTs in the Rack is small

It's like the music production equivalent of The Simpsons meeting Family Guy... only better (I'll stop the analogy thing now).

10/10



1 BROWSER
When you first load your VSTs into Reason 9.5, they will appear in the Browser with default logos.



2 SCREENSHOT
Open up an instrument after dragging it to the Rack and then click the Screenshot option, top right.



3 NEW GRAPHIC
The default graphic in the Browser has now been replaced. In this case, it's SynthMaster.



4 KONTAKT
Native Instruments' finest loads as normal after you Rack it, with all of your options loaded and ready to go.



5 EFFECTS
Of course, it's not just about instruments – here are a couple of effects from Focusrite and UVI.



6 AND RACK SOME MORE
Around the back of the Reason Rack, you can get your modular synthesis and sequencing working.



Details

Kit **Electro-Acoustic**
 Manufacturer **Soniccouture**
 Price **£139**
 Web **www.soniccouture.com**
 Minimum system requirements
PC Windows 7, Intel Core Duo or AMD Athlon 64 X2, 4GB RAM, Kontakt 5.5 or Kontakt Player 5.5
MacOSX 10.9, Intel Core 2 Duo, 4GB RAM, Kontakt 5.5 or Kontakt Player 5.5

Key Features

- 15 vintage drum machines
- 11 studio channels
- 3 creative sequencers
- 24-bit/48kHz samples
- 14GB core library with NCW compression (30GB uncompressed)

SONICCOUTURE Electro-Acoustic

What do you get when you cross a drum machine with an acoustic kit? **Mike Hillier** finds out...

A new library from Soniccouture is always reason to get excited, but when we heard that the library was going to cover classic drum machines, we were doubly intrigued. There are countless vintage drum-machine libraries available out there, ranging from exhaustively sampled, perfectly clean samples, to versions recorded through analogue processors or recorded to tape and then sampled from that. So, you may ask yourself, what can Soniccouture bring to the table that we haven't already seen?

The Electro-Acoustic library begins with exhaustive multi-sampling of each instrument, capturing every

conceivable variation of each sound – the 808 kick drum alone is 1GB. These signals are then run out through a 1073, a Thermionic Culture Rooster, the compressor in State Of

The multi-sampling of each instrument captures every conceivable variation

The Ark Studio's EMI TG console and an Ampeg Bass cabinet at Monnow Valley Studios to provide four different analogue saturation colours to blend with the dry drum signal.

This alone would have made for an interesting library, but nothing

particularly unique, which clearly wasn't enough for Dan and James at Soniccouture. So these samples were then driven through a PA system at State Of The Ark, with a drum kit set

up in the room with the PA and the rattle and resonance of the kit recorded to layer onto the drum samples. In this way, the library becomes a unique and expressive new instrument, blending the electronic with the acoustic.



Measuring up

Some of the best drum-machine libraries we've come across before now have come from the Goldbaby website (www.goldbaby.co.nz), with different libraries for a huge selection of kits processed in all manner of different ways. But the option of re-amping the kits in a room and capturing the resonances and rattles of an acoustic kit is something we've not come across before. For the sequencers, we've seen a Euclidean generator in modular form, and for Propellerheads Reason, and many of these designs could easily be created using Native Instruments' Reaktor.

First steps

As a source for drum sounds, the Electro-Acoustic library is one of the most instantly playable instruments we've come across. The presets present a huge array of sounds, but the fun doesn't really begin until you start digging in and creating your own custom sounds. Love the basic kick of an 808 with some dirt, but want more from your snare? Just dial in a little room tone and kit resonance. Dial in rattle on the hi-hats, and blend in some mid and high tone from the PA. You can get almost endlessly complex sounds with only a few basic controls. This alone would make the Electro-Acoustic a superb instrument to play. But Soniccuture didn't stop with just the sampling, it also created three sequencers in Kontakt's scripting language to go along with the instrument and to encourage you to be creative with your beat making.

The three sequencers are the Beat Shifter, Euclidian Beats and Poly Beats. Each one is a distinct option to reach for in its own right, whenever you have a specific type of beat in

mind. The Beat Shifter works at first a lot like a simple grid sequencer; however, to make things more interesting, each track has options for evolving the pattern further. With randomly selected beats shifting forward or ahead in time by pre-determined amounts, or even of not happening at all. This produces evolving beats which, if carefully controlled, introduce subtle shifts while maintaining the overall groove – perfect for IDM or ambient rhythms.

The Euclidean Beats sequencer works by equally spacing beats around a grid. With simple divisions, this is quite easy. Placing four kicks in a 16-beat loop will produce an obvious four-to-the-floor pattern, adding four hats will place a hat on top of each kick, shift the hits by two and the hats now fall between the kicks. All very basic, and a tad boring. But start playing with less easily divisible numbers – say, eight hat hits in 11 steps on top of three kicks in 16 steps – and you quickly start creating complex loops.

This is a really great way of quickly coming up with beats, and by playing with the Hits and Shift parameters in real time, you can even quickly create some interesting fills. Interestingly, the length of a step is always equal, so laying a 16-step loop over an 11-step loop will create a beat that shifts in phase against itself as it progresses, like a Steve Reich piece, until it repeats after 11 bars.

The final sequencer is the Poly Beats sequencer, designed to enable

quick creation of polyrhythms. Poly Beats enables you to divide a bar up into a different number of steps for each voice, layering a six-beat-to-the-bar kick over an eight-beat-to-the-bar snare for example. You can now place hits on any of those beats to create polyrhythmic patterns for your sounds. This is different to the behaviour of the Euclidean Beats, as the steps now always divide perfectly into a single bar, and so the pattern will loop from bar to bar.

Rattle and hum

Electro-Acoustic is an absolutely astonishing instrument – the sounds it is capable of range from clean and dry drum-machine samples to weird rattles and booming cavernous crashes. The library of sounds alone is superb, but to really get the most from Electro-Acoustic, you have to spend some time with the three sequencing engines. You'll be rewarded, since each one has its own unique character which makes composing rhythms using them inspiring. **MT**

MT Verdict

- + Comprehensive drum library
- + Creative mix options
- + Three incredibly fun sequencers
-
- Might irk the purists
-

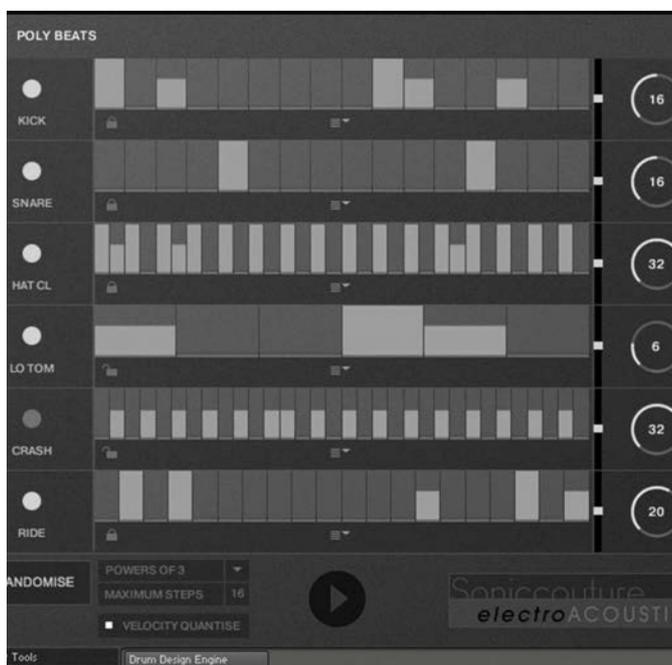
Soniccuture has done it again. Electro-Acoustic is some of the most fun we've had with a drum library in years.

9/10

BELOW LEFT: The samples in the library can be blended with, among other things, the rattle and resonance of a real kit, and each sound has been recorded through 11 different channels in the studio, which you can blend

BELOW RIGHT: The Euclidean Beats sequencer offers an easy way to create complex rhythms made from overlapping loops

PREVIOUS PAGE: The Drum Kit Panel is where you build your kit from drum-machine samples and shape the sound of each component





TEENAGE ENGINEERING PO-32 tonic

One of our products of NAMM 2017 was the new Teenage Engineering PO-32 tonic. **Andy Jones** discovers another twist in the trend of software becoming hard...



Details

Kit **PO-32**
 Manufacturer
Teenage Engineering
 Price **£85** (case **£35**),
Microtonic software
 (\$99)
 Contact
Sound Technology
01462 480 000
 Web www.soundtech.co.uk
soniccharge.com
teenage.engineering
 System requirements
 Host that supports
VST 2.4 or Audio Unit 2
 plug-ins

Teenage Engineering's Pocket Operator series has certainly impressed us over the last three years. Released in two batches of three, it comprises the 10s (the rhythm, sub and factory) and 20s (arcade, office and robot). They cover all grounds: drum machine, synth, bassline, vocoder and more. Often, you also get multiple instruments, so you can produce complete tunes from each unit. They're very cool. Teenage Engineering is very cool (check out their T-shirts and sneakers!) and they make me feel very old. How, though, can they be even cooler with their next release? By getting completely out there...

When soft went hard

Microtonic (actually spelt μ TONIC, but we'll go with the easy option on our keyboards) is a piece of incredibly well-regarded software, released some 13 years ago – I used it for pretty much all my beats back in the day. The developer Magnus Lidström famously developed Malström for Propellerhead and has several other titles under the Sonic Charge brand, including the bonkers Synplant.

At the NAMM Show in January 2017, Lidström told us: "Teenage Engineering and I were talking about doing something together for some time and when they were talking about doing another Pocket Operator, they asked

expect, but a fantastic concept. Very Teenage Engineering, of course...

In operation

On power-up, you'll notice the screen, which has a typical TE cartoon scene.

It's the other way around from what you might expect, but a fantastic concept. Very Teenage Engineering, of course...

me. So we've come up with this, a version of Microtonic in hardware."

What we have here, then, is something very unusual. We've seen a resurgence in hardware, but not so much a direct release like this – this is a partnership where the software and hardware works very well together, as Lidström showed us at NAMM by downloading a sound by way of the PO-32's onboard mic, from the software into the hardware. It's maybe the opposite way around than you might

You may remember previous ones that at first seem unrelated to the Operator, but are. This one has a bar scene with people drinking tonic – see where this is going? Apparently, you drink the tonic and it turns you into a 'neat drummer'.

And a drum machine is what is at the heart of PO-32 tonic – albeit a very different one. I loved Microtonic for its way-out-there sound, and happily, this is no exception.

PO-32 tonic features 16 main buttons, with 16 sounds or patterns to

Key Features

- Pocket drum machine with synth engine and sequencer
- Unlimited sounds when partnered with Microtonic
- Built-in mic for data transfer
- Built-in speaker

select. The sounds can be adjusted with the two rotaries, either for pitch or another parameter (often drive or filter).

Pre-programmed patterns can be chosen via the 16 keys and you can easily add to them by choosing one of the 16 sounds, twisting its character and then recording over the patterns in a 16-step, switch on, switch off way. It's very easy and great fun. You can also add one of 16 very good effects to the mix, simply by holding the FX button and selecting as patterns play.

As a drum machine in its own right PO-32 tonic is fabulous and just like the other six in the 10 and 20 range, in terms of the ease in which you get there and its amazing flexibility. However, now's the time to add some tonic to this particularly beaty gin...



It may sound gimmicky, but it marries up both software and hardware like you've never seen before...

A dash of tonic?

So this is the really cool bit. You'll need to download and buy a copy of Microtonic from the Sonic Charge

website if you don't already own it. Don't worry, though – even after 13 years, this is one cool piece of software and it sounds better than ever. You can also trial it for three weeks free of charge, although the link with the PO-32 tonic doesn't work until it's fully registered.

Once you have it up and running, you'll hear what a great piece of software it is. On a simple level, have it running in the background with tunes you are working on and step through the preset patterns. They're very similar to the style of the ones on the hardware and you can easily change sounds within them, tweak and distort, filter and pitch, really mess with each beat to get some extreme sounds. Within minutes, I had a menacing late-70s Human League beat going under a too-sweet piece of music I was working on – the perfect counter. I'm not kidding, this software is worth every cent of the \$99, if you want something a little extreme with your beats.

Anyway, I'm getting a little carried away. The exciting bit comes when you take that early Human League beat you've come up with and transfer it to the PO-32 tonic. Press 'Acc' and 'Sound' on the PO-32 and the TE logo on the software and you transfer that sound – either by putting the TE mic close to the computer speaker, or connecting a cable via the headphone to the mic

input on the PO-32. Choose your destination sound button (from the 16) and the sound will be transferred to that location.

Conclusion

That might sound a little gimmicky and, yes, maybe it is. But it also marries up a piece of software and hardware like I've never seen before, and it adds a lovely edge to the PO, making it the first to be updatable in this manner. Think about future POs married to other pieces of software like this – the mind boggles!

Ultimately, Microtonic is a superb piece of beat software and with the patterns and manipulation over them in PO-32, the latter is already a great representation of the former. But now you can transfer exact sounds to the PO, you really can get the best of both worlds. PO-32 tonic has (re)opened my eyes to the fantastic world of Microtonic, and the fact that it works so well with the software brings two great beat-making worlds together. **MT**

TOP: The magnificent seven Pocket Operators in their boxed glory – and (bottom) the PO-32 unwrapped. Just check out the animated screen...

LEFT: Taking software and making it hard? That's what PO-32 does (kind of)



MT Verdict

- + What a great drum machine in hardware PO-32 tonic is
- + What a great drum machine in software Microtonic is
- + Together, they're even better
- + And incredibly cool
- + The best £180 you can spend on beats

- The PO is still a bit flimsy

PO-32 tonic has certainly added a tonic to our beats in both hardware and software. Separately, the hardware and software is superb. Together, they are unbeatable.

10/10



GOTHIC INSTRUMENTS Dronar Live Strings

Gothic Instruments' latest throws open the complex world of the string section, with plenty of interesting surprises. **Dave Gale** applies rosin to bow, to see how 'live' strings can be...

Choice
9/10
MusicTech

Details

Kit **Dronar Live Strings**
Manufacturer
Gothic Instruments
Price **£69**
Contact **Time+Space**
01837 55200 sales@timespace.com
Web
www.timespace.com

Key Features

- String library with processed elements
- Perfect for drones and pads
- 10GB of sample audio
- 731 preset patches
- Expert and Beginner levels
- Onboard FX
- Kontakt-based library (full Kontakt required)

Strings! There's nothing quite like that sound to add a touch of movement to a track, and more often than not, it's all down to how you program the various elements of expression that make or break the believability of context, so I was very curious about this new library from Gothic Instruments, which approaches strings from a slightly different angle from the norm.

If you're going to make a sample library, as with all recording, it starts with good-quality performances and audio capture, and that's where the Royal Liverpool Philharmonic Orchestra enters the fray, as this is where the original sample data has been drawn. I found this particularly interesting, as for much of the library, many of the patches sound quite processed, so there can be a heavy synthetic quality to the overall sound, but as I would find later, that's really the library's strength.

Once downloaded and installed, which was a reasonably quick and painless affair, I quickly discovered this library doesn't conform to the

preferred Kontakt Library format, leaving the user to load the sample patches from the File part of the Kontakt page, and thus requiring the full version of Kontakt, and not the free Kontakt Player. This does mean it's not quite as easy to load as other libraries might be, but thanks to a very logical and well-thought-out hierarchy, it's pretty easy to get at what you want, with a minimum of fuss. I did, however, find that all patches seemed to take noticeably longer to load than many other orchestral libraries I have, which leads me to think there's considerable audio usage at stake, along with a healthy degree of processing. Investigating further, I found each patch would swallow around four to five per cent of my computer's CPU (2.3GHz, Quad Core i7), which is quite a chunk of processing, for a sample library. Despite this, there is an argument that you won't need to load too many of these patches simultaneously, so most users shouldn't have any issues.

Once loaded, there's quite a sonic cavalcade. Beginning with some basic patches, the Classic Strings patch is

exactly what one might expect, but in its opening incarnation, is quite reverberant and syrupy, with a long release tail. At first sight, you might be forgiven for thinking that the main page controls, relating to High, Mids and Lows, might be some form of EQ setting, but it's actually more to do with the engagement of further instrumental samples, as each increases with the turning of the appropriate pot. Which instruments are engaged is dependent on the patch. Enter the Expert page and the

Do I really need this?

If you're working to a tight budget, this could be money well spent, especially if you are a student, as there is a sizeable student discount to be had on this product if ordered from Time+Space. Yet as a standalone string library, to cover all bases, you'll be barking up the wrong tree. Effected strings, drones and pulsating/arpeggiated patterns are the order of the day here, and as such, will complement other libraries which are more vanilla in flavour. It does offer a degree of diversity, so you could get it to work in more orchestral settings, but you might struggle to make it sound like a real string section, unless there's plenty of covering fire. On the flipside of this, there's plenty of potential here for drones, and with the large amount of raw audio and the back-end processing, offers plenty of interesting programming possibilities.

ALTERNATIVES

This is a tricky one, because Dronar Live Strings is very competitively priced. Taking into account the strengths of this library, let's consider some worthy alternatives from Spitfire Audio. Albion V Tundra offers some excellent otherworldly string samples, along with a whole batch of other sounds, as does the Olafur Arnalds Evolutions library, which concentrates more on what are termed 'Frozen Strings'. If you want a taste of this, on the cheap, look at the Labs section of the Spitfire Audio website, where you'll find basic Frozen Strings and Scary Strings libraries, along with other equally tempting libraries, for just £3 per library. It's essentially a charitable donation to the cause, and will yield some very tempting tidbits, including the rather wonderful Soft Piano. The prices of these libraries is far more than for Dronar, but you arguably get much more for your money. Either way, one of them will fit your budget.

long tails of release could be quickly and easily tamed, making them usable in settings where a faster tempo might be required.

Moving on to some of the more FX-based patches, there are some sonic treats on offer. The Swarm Col Legno throws open Pandora's Box and starts to demonstrate where this library offers considerable strength. The knocks and harmonics springing forth sound wonderful and, in common with all other patches, offer a degree of key switching placed in a very accessible location on the keyboard (no extremities here!).

However, I was surprised to hear a lack of Round Robin sample triggering, resulting in the same sample being triggered over and over, which could be an issue for anything other than single-shot usage. Largely, the key switching throws open further incarnations of the same patch, often layered with effects. Talking of which,

many of the patches have a lovely sense of movement, often panning across the stereo spectrum, which could be very enticing, but could also end up being something that the user wishes to switch off and, if I'm honest, endorses where this library might excel, and also where it might prove to be at its weakest.

Soundtrack writer

With the large quotient of effects-based patches and timbres which start from a point of anything other than your regular string library, this is certainly going to appeal to soundtrack writers, and perhaps musicians who want a good-quality

sounds synthetic. However, a good workaround here will be to employ Live Strings' Rhythm Editor settings, where the pulsing of staccato and pizzicato playing can be achieved in a much more believable way, thanks to elements of dynamics and humanisation.

It's possible to dictate where accents should be applied, thanks to the size of the 'dot' in the graphic, but curiously, I was unable to place an accent on anything other than the main beat pulses, meaning that dynamics might have to be programmed elsewhere. Talking of which, the usual dynamic control is accessed via MIDI CC 1, better known

This will appeal to musicians who want a quality library with less in the 'usual' categories

library that covers all the bases, but offers less in the 'usual' category of played instrumental-type samples. Live Strings does have scope to use in this capacity, but to my ears, sounds rather synthetic, which might also have something to do with the brightness of the patches. This could again be a real strength for soundtrack work, or anything that's required to cut through a mix.

The lack of Round Robin samples within the more regular patches does start to show the limitations of the library; nowhere more so than in the Staccato strings, where the rapid fire of the same sample immediately

as the mod wheel, so it's possible to program dynamics this way.

Alongside the Rhythm Editor, the Arpeggiator will also allow for a certain degree of help from the patch panel. Like the Rhythm Editor, the Arpeggiator clocks to your main DAW tempo, with basic expected controls for subdivision of beat, and the direction of the arpeggio.

I get the hint that within this weird and wonderful library, there's great scope for creating some very dramatic drones, and part of this makeup would undoubtedly have to be the LFO and FX sections. On the back end, there is the usual reverb and delay, →

PREVIOUS PAGE: The basic Live Strings interface, with a fine selection of patches to call up

BELOW LEFT: In Expert view, all the elements that you need are on offer to allow for subtle tweaks and variations

BELOW RIGHT: Some crunchy distortion adds excellent colour to the strings, along with a healthy dose of chorus





ABOVE: Slaving to the rhythm, the Rhythm Editor page allows Live Strings to do the work of repetition of notes. Just tell it what you want, and place your accents

but further back in the signal chain are some highly useful settings, which stay in keeping with this library's overall ethos. The distortion setting has clearly been tailored to offer something that's particularly crunchy with strings, and sounds really great as a result. It's got that 'bit crush' feel about it, and sounds particularly effective with the back-end compression and reverb applied. If you want something more palatable, the chorus will give your sound more of a silky quality, or is a particularly

effective method of pitch modulation, if the speed of modulation is increased to the upper limit.

The final reckoning

There's no doubt this is a very usable library, but probably not as a main source of unadulterated strings samples. That's not what it sets out to do, but what it *does* do is start with some great raw string samples and then dish them up in an altogether different way, which would be really suitable for soundtrack, drones and especially suspenseful and horror-based cues. It's got a price which makes it very competitive, so it would be unfair to compare it to some of the larger and more symphonic-based libraries, which clearly offer the full gamut, but here we get drones, effects and reverberations that would add a lovely palette to an existing library.

If you're working on a budget and could use some basic string patches, but without expecting them to do too much, this will work very well for you. Having said that, it can sound enormous, but in a sedate way, when you want pads to literally pad out the mix. This it does well, with sonic interest and movement.

I applaud what Gothic Instruments has done here; approaching the Live Strings title from an altogether different stance – so much so, I would say that the title 'Live Strings' is possibly a little misleading. I would call it 'Live Effected Strings With A Large Dose Of Hardcore Attitude', but to be fair, that doesn't roll off the tongue quite so easily. **MT**

MT Verdict

- + Plenty of drones and textures
- + Nice movement in many of the patches
- + Integration of arpeggiation is useful
- + Back-end processing is intrinsic to the sound of the product
- + Very cost effective and good value for money
- Limited use in an orchestral setting
- Lack of Round Robin sample content
- No Kontakt Library implementation

If you're after strings-based and otherworldly drones, this should be on your list to try out. At this price, it's hard to go wrong...

9/10

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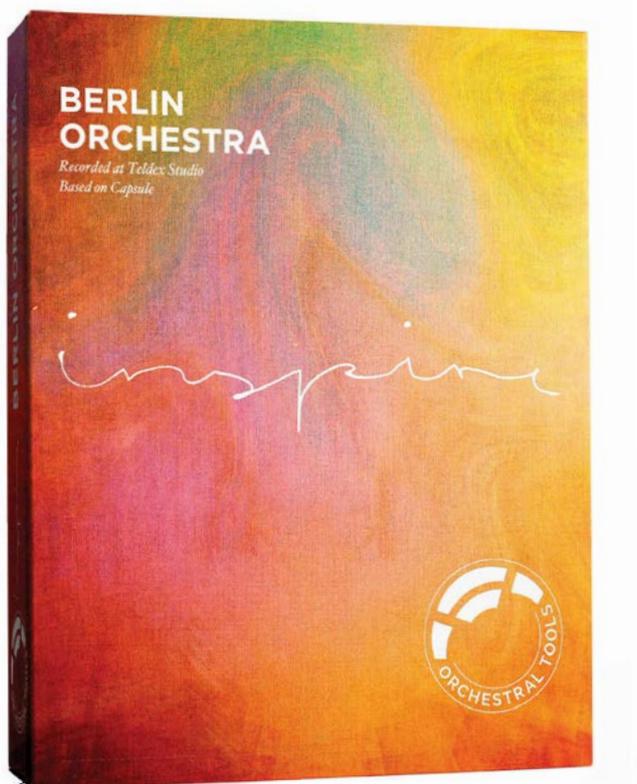
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ORCHESTRAL TOOLS **EXCLUSIVE** Berlin Orchestra Inspire

Orchestral Tools brings us a more modestly priced full orchestral library, with instrumentation across the entire orchestral board.

Dave Gale loads it up for some sweet inspiration...

Choice
9/10
MusicTech

Details

Kit **Berlin Orchestra Inspire**

Manufacturer
Orchestral Tools

Price **€399 +VAT**

Contact **Orchestral Tools +49 (0) 7665 9398678**

Web **www.orchestraltools.com**

Key Features

- Full-scale orchestral library
- All orchestral sections are represented
- Piano sample included
- Plenty of percussion samples, too
- Requires Kontakt or Kontakt Player (Library compliant)
- 18GB sample data (uncompressed)

Berlin-based company Orchestral Tools has something of a reputation for impressive sample libraries, especially within the orchestral realm. But as is the case with most good libraries, owning the fully featured sets can add up to a sizeable investment and having the option for something which is more modest, to suit more simplistic work, is really important. This is where the new Berlin Orchestra Inspire library fits the bill, drawing samples from the main Orchestral Tools libraries, but dispensing with elements that might not be required as regularly as the hardy staples.

Section by section

Our review copy was a pre-production version, meaning that we were working in File mode (the production version will be Library compliant and hence work with Kontakt Player), but sonically, the library speaks for itself. The instrumental offerings are divided into Multi and Single articulations,

with the instrumentation varying slightly within each section. In the Multi corner, we have selections from the Wind, Brass and String departments, with a gratifying Full Orchestra Tutti patch, which is one of those glorious full-on first patches, which sounds so great as it is, you could write something within seconds and not feel guilty about being lazy. I say this, because my general *modus operandi* is to orchestrate on a part-by-part basis – but patches this good feel like they're a guilty pleasure, yet oh so good in the correct context. Starting with the Full patch, there are three articulation settings; the first Sustained setting is full of rich timbre, in that very familiar Hans Zimmer sense, with the brass clear and full, as they rise above the strings in volume. Employing the usual mod-wheel element to control the dynamics, the brass dissipate away in the lower dynamic range, to leave the strings to shimmer in low-level glory. The Staccato patch is open to velocity control, and offers that high-action

drama, with the repetition of singular or chordal-based playing, leaving us with the final patch in this section, which is FX based. Here, there's a sonic wonder of crescendos and hits, which rise in cavalcades of pitch, in the most modern of soundtrack settings. There's plenty of choice here, but mostly in the one-hit department, so you will want plenty of samples to avoid the same usage over and over.

Moving to the other sections, they generally offer more on the articulation front, with particular praise going to the full-section incarnation of each patch. The Strings, in particular, offer a good range of articulation types, from the expected sustain and staccato, to

Do I really need this?

This is very definitely an orchestral library. There are no loops or phrases built in, and as such, it's designed to offer great sounds to the user to score music, in the traditional sense. If that fits the bill and you're looking to dip your toe in the orchestral pond for the first time, this would be a great first purchase. Despite first appearances, it's pretty comprehensive and for the money, represents excellent value.

ALTERNATIVES

The obvious 'One' to consider at a very similar price point is Albion One from Spitfire Audio. While, on the face of it, One has more content, much of it is loop or hybrid based, which may not be something you require. However, the more traditional orchestral instrumentation is very firmly present and of an excellent quality, albeit in high/low form, rather than individual patches. Another great out-of-the-box option comes from ProjectSAM, with its Orchestral Essentials packages. Offering large patches of each section, the quality is great for the price and excellent as a starter option, if you're on a budget.

pizzicato and tremolo across both major and minor 2nds. Sonically, these are excellent, with the pizzicatos coming in for particular praise. Each pluck offers a sense of depth, with a small degree of inaccuracy in the ensemble, which makes it sound very believable. The samples here respond well to velocity, but there was, however, a lack of full Round Robin control, (although the final version will feature 3 RRs, controlled in the 'Settings' view).

Each pluck has depth, with a small degree of inaccuracy so it sounds very believable

Elsewhere, in the Brass and Woodwinds, the nature of the sonic colour is similarly full spectrum, with collections of basic articulations assembled to cover all the usual favourites, with the more obscure options removed. I was less convinced by the Marcato Full Brass, where the full-length accent, which fronts each note, felt a little brash and long. This element is removed, when the mod wheel is dipped, leaving a lush and quiet brass bed beneath.

Through each of the instrumental sections here, there are further options for groupings of upper and lower instrumentation, along with patches which play in octaves. It's all very usable stuff, and moreover sounds particularly convincing, which is after all, the most important factor.

Single articulations

Moving into the area of single articulations. Here, we find the itemised versions of instrumentation mentioned thus far, but doubtless this will help anyone who is struggling with RAM allocation and not wanting to load Kontakt instruments with all

the key switching available. To give a good idea, the Full Orchestral patch in Multi form requires 92MB of allocation, whereas the Staccato patch in single form will only require 60MB. Saving 32MB might not seem a lot, but add that up across a whole composition and it might mean the difference between being able to load a song, without the need to turn parts to audio, or not.

However, the best is yet to come. Lurking in the Single patch menu, there are some lovely gems, notably in the shape of percussion and piano. Loading the Percussion Essentials patch, I thought they had misnamed it – it's more like 'Comprehensive Percussion', with loads of bass drums, snares, gong scrapes, bell trees, and even humans clapping. Granted, there's not as much Round Robin programming here as there might be, but in context, it proves very believable indeed. Alongside this comprehensive set, there are some

great tuned percussion patches, in the form of Timpani, Glockenspiel and Xylophone/Marimba. I have to say that I found the latter to be the least believable in the pack, suffering from a large amount of high-end crispness, which didn't do the instruments justice, at least in my view. But you can't win 'em all!

But then I found the Steinway Model D – superbly recorded on a sound stage, the balance between close mic'ing and room is sublime, and if there's one thing I have come to expect from Orchestral Tools over the years, it's that the company likes to throw in some very nice, high-quality surprises... and this is definitely one.

I cannot overstate just how good this sounds. The sonority of timbre, coupled with the room, makes for something which is so filmic, it will nestle right into a soundtrack mix, with very little fuss indeed. Being from a more modest library, it lacks the comprehensive velocity switching that can be found elsewhere, but what it lacks in technical prowess, it makes up for in the sheer quality of the sound on offer.



The final ovation

Despite costing less than you'd expect, this is a very comprehensive option indeed. If you're on a budget, this will be very hard to beat.

As the name suggests, there's a vast amount to inspire you in this fantastic library, and that's ultimately what we all want; a great all-round library for a very fair price. Bravo!

To try an exclusive demo of Berlin Orchestra Inspire (Kontakt required), head to musictech.net/2017/06/berlin-orchestra-inspire-demo and enter the following code to download – KJ2LM7 MT

ABOVE: Working in File mode, you can see the breadth of instrumentation available – it's all about Orchestral inspiration

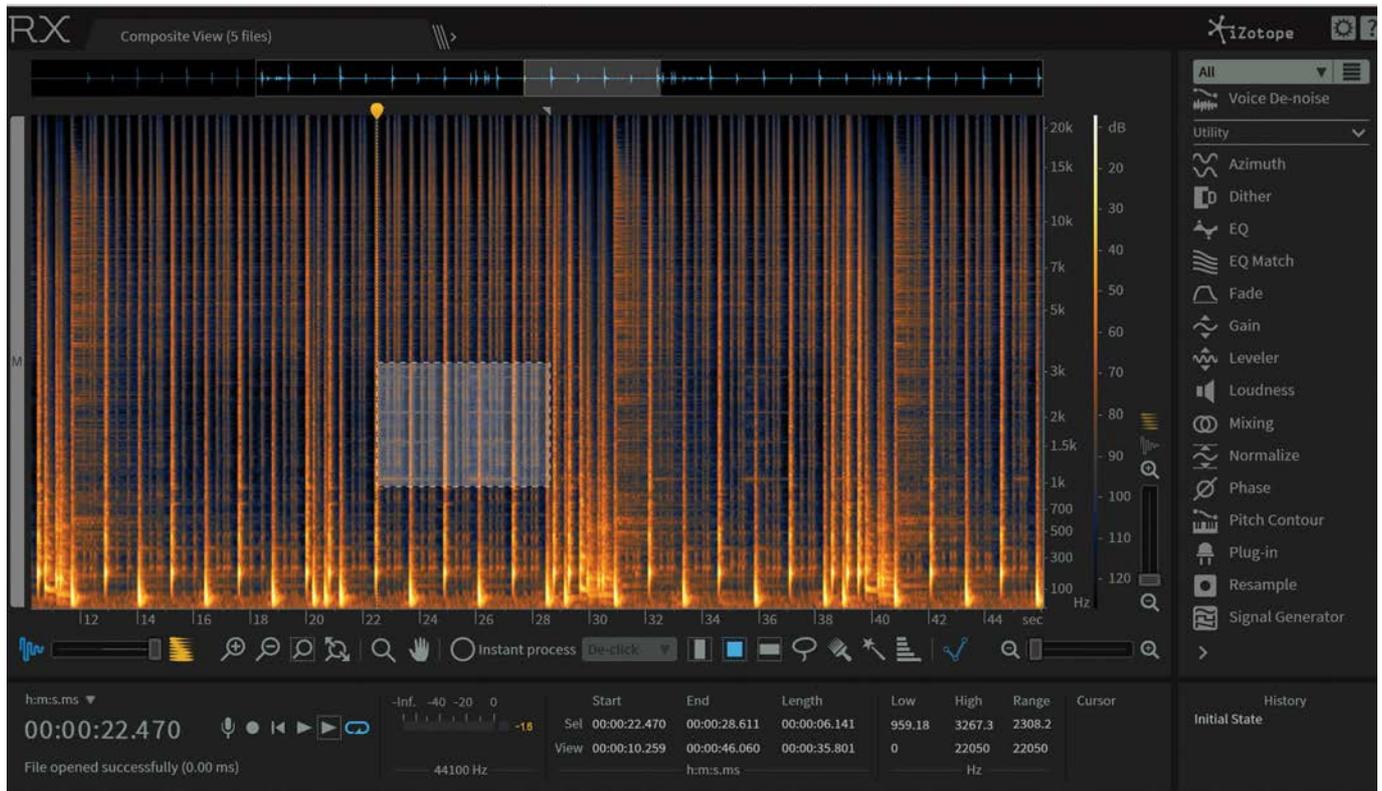
MT Verdict

- + Great selection of instruments
- + Multi-keyswitch patches available
- + Pretty comprehensive, given the price point
- + Certain samples box way above their weight
- + Instantaneous, if you want it to be
- + Options for greater detail, also available

- Could also use greater Velocity Zoning, in some places
- Current Euro exchange rate means the cost is raised (not OT's fault, however!)

This is another fantastic all-round library from Orchestral Tools, that offers some instant full-scale patches and far more besides.

9/10



IZOTOPE RX 6 Advanced

iZotope's RX6 introduces a range of new features, many with a distinct focus on music production. **Mark Cousins** explores the expanded appeal of RX Advanced...



Details

Kit **RX 6**
 Manufacturer **iZotope**
 Price **RX 6 Advanced £939, RX 6 Standard £315, RX Elements £99**
 Contact **Time+Space 01837 55200**
 Web **www.izotope.com**

Key Features

- Audio-repair software
- De-rustle
- Dialogue Isolate
- De-wind
- Composite View
- De-bleed

Since RX was first released in 2008, iZotope has produced a series of updates to its powerful spectral-based audio editor, making it one of the most effective audio-repair systems available. RX6 is possibly the biggest update of the application to date, with a series of new modules, as well as a new tier to the application in the form of RX Elements. Pleasingly, there's also a distinct focus on RX's use in both music and post-production activities, making RX6 a tempting proposition to a range of audio professionals working with problematic audio.

RX was originally conceived as a spectral-based audio editor, offering a sonic 'fingerprint' of any given sound as well as the traditional waveform editor you're used to seeing in a typical DAW. The spectral approach offers a range of distinct benefits, not

least the ability to visualise and edit audio in both time and spectral dimensions. Over the years, iZotope has steadily introduced new modules to the application, each designed to offer a customised solution to a range of audio flaws – like distortion, clicks, reverb removal, and so on.

RX's ability to seamlessly remove 'noise' without altering the dialogue is impressive

RX6 Advanced, the most expensive version of RX, includes the largest amount of new additions, including De-rustle, De-wind and Dialogue Isolate. Not surprisingly, there's a distinct slant towards the world of post production for features like these, where these modules will

undoubtedly become an essential part of the post-production workflow.

Postman Pat

In use, the post-friendly features produced astounding results, particularly with respect to the Dialogue Isolate module, which can

produce super-clean dialogue from sources that you'd consider beyond salvation! In the past, of course, audio processing like noise gates and filtering might have taken you part of the way towards cleaner audio, but RX's ability to understand the nature of the 'noise' and then seamlessly

Measuring up

Audio restoration can be an expensive business, with apparently simple tools utilising years of expensive R&D. Cedar Studio 7 plug-in suite, for example, can set you back almost £10,000! – a price-point clearly pitched at high-end post-production facilities. Even at £939, RX 6 is an comparatively affordable route into the audio-restoration business.

remove this without altering the dialogue is impressive. The real beauty of all these modules, though, is their apparent ease – they're pared down to a few simple parameters that deliver results quickly and easily.

What's particularly promising, though, is the number of new features included in the Standard version RX6, many of which have a distinct use in music production – including Composite View, Mouth De-click and De-bleed. Having seen so many post-orientated developments over the last few years, it's great to see music production getting some well-deserved attention, especially as part of the more affordable RX6 Standard. In effect, RX6 Standard is better thought of as the 'Music' version of the application, rather than simply being a 'Lite' edition.

Also worthy of a mention is the new RX Elements, which is now the most affordable way to access the standalone version of RX.

Understandably, RX Elements has a limited collection of modules, but the most important feature of RX – its Photoshop-like ability to re-touch spectral properties – is fully intact.

De-bleed is easily the standout module from the new music-focused features – simply feed RX a version of the click track alongside the audio recording and the click is seamlessly removed. Composite View – which allows you to view and work between multiple files makes perfect sense to those importing multi-mic recordings into the world of RX. Indeed, I got excited about the possibility of cleaning up orchestral recordings using the combination of De-bleed and Composite View, rather than having to constantly dip offending 'click heavy' channels in the mix.

Going clean

If you work in post, RX will already be a part of your daily workflow, and the new modules offered by version 6 will undoubtedly make your dialogue

cleaner than ever before. The real game-changer, though, is the number of new modules also added to RX6 Standard that will undoubtedly pique the interest of the more 'occasional' music user. Certainly, having access to RX has fixed a wealth of audio problems I've been presented with throughout the years, so it's great to see the application being even more accessible to music users, as well as addressing their specific audio-restoration needs. **MT**

MT Verdict

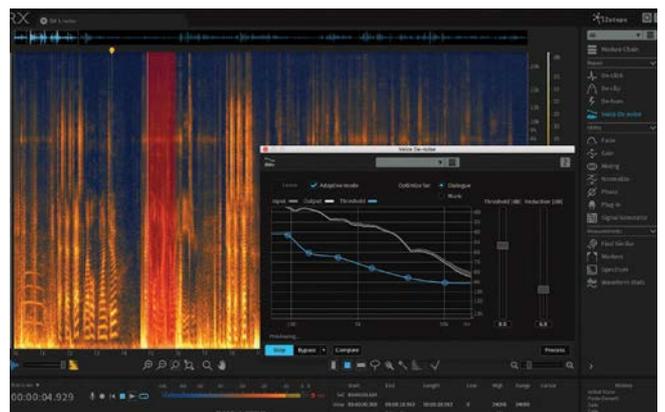
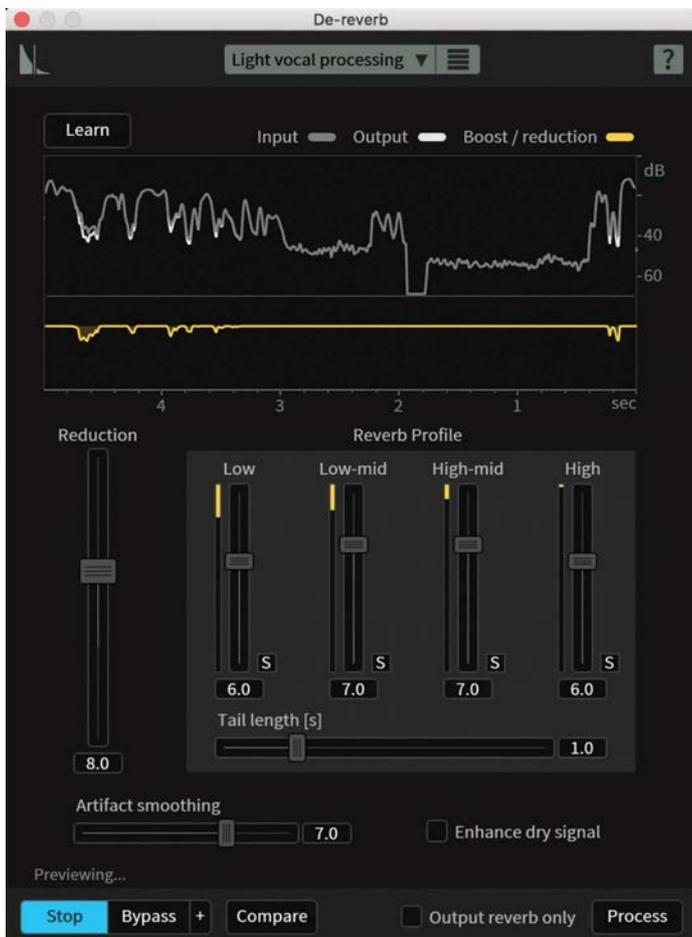
- + New range of music-focused modules
- + Powerful dialogue restoration
- + Composite View for multi-track editing
- + More affordable entry-level version

- Full version is expensive
- Integration varies between DAWs

Now an essential tool for both music and post production, iZotope's RX 6 has matured to be a dependable and highly useful audio editor.

10/10

Below: A selection of the tools that iZotope has evolved for RX over the years in action – the newest additions include De-rustle, De-wind and Dialogue Isolate



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Focusrite iTrack One Pre

Manufacturer **Focusrite**

Price **£119**

Contact **01494 462246**

Web **itrack.focusrite.com**

Focusrite's iTrack range covers, as you might expect, some varying ways of uniting your iOS audio apps with the outside world. The first one that we looked at was the iTrack Dock, a plain and simple docking station that houses your iPad for interfacing with your desktop setup.

Since then, we've seen the iTrack Pocket, which is an even smaller phone solution, and the iTrack Solo bundle that adds more conventional interfacing and a microphone.

The iTrack One Pre is a different take again on iOS recording but, on the face of it, seems like a very elegant solution and one simply aimed at anyone

wanting to record vocals or guitars into their iPhone or iPad.

The unit is compatible with iPhones SE, 5 and 6; both iPad Pros; iPad Air; all iPad Minis; iPad (4th gen); and iPod touch (5th and 6th gen). iPhone 7 users can record, but will not be able to monitor via a headphone jack, as Apple controversially got rid of it.

As for the unit itself, it's surprisingly small and rugged. At just 55mm square, it can go anywhere with you, although the square shape doesn't make it that pocketable. There's a joint mic/line input and the unit draws enough power from your iOS device to make using condenser mics possible without external power.

Plug it into your iOS device (we tested it with an iPad and Cubasis) via the supplied cable, which we feel could do with being twice the length, and it lights up with a compatible app. The main dial then illuminates as soon as a signal is detected. It glows red if there's too much signal and changes back to green as you dial the input level down.

It's an incredibly simple plug 'n' play operation and we were soon adding audio to old Cubasis tracks, including some very dodgy vocals (that being our vocal quality – not the fault of the interface).

Sure, cables could be longer and the unit less square, but the fact that you can use pro mics without external power, combined with a quality Focusrite preamp, makes the iTrack One Pre one of the best mobile devices we've seen. **MT**



Key Features

- iOS interface for vocals and guitar
- Draws power from iOS device
- Freq response: 20Hz to 20kHz
- System requirements: iOS9, iOS10
- Weight (g): 160
- Dimensions (mm): 55 x 55 x 55
- Comes with Micro USB to Lightning and USB A cable and pouch

MT Verdict

We could insert an 'is that an iTrack One Pre in your pocket or are you just pleased to see me?' joke here, or just say 'damn good iOS interface!'

9/10

Looplords Modalities

Developer **Looplords**

Price **\$29**

Contact **via website**

Web **www.looplords.net**

As we saw in last month's issue with Hexagon Sky, plug-in instruments are getting narrower and narrower in focus – rather than concentrating on a broad palette of sounds, we're now homing in on specific types of bands. In Hexagon's case, it's a Boards Of Canada inspired plug-in, so any guesses which band Modalities takes its cue from?

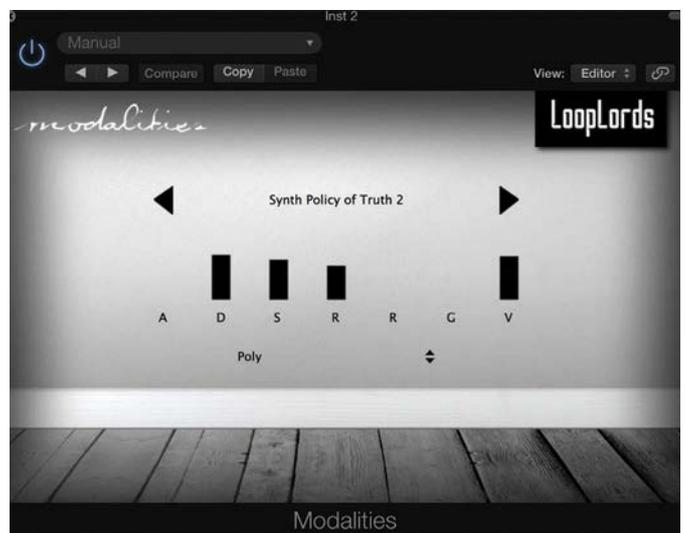
Yes, it's a plug-in that's designed to fulfil all of your Depeche Mode needs and features a whopping 6GB of content, which seems like it's worth the asking price alone, given that said price is just £29. Some fans will have been dreaming of a plug-in like this (and yes, there will be more DM song references).

To be fair, that content is pretty much all you get with the plug-in, as it's stripped down to the bone. The fascia offers an envelope shape, Poly, Mono or Legato and a list of presets to choose from including Bass, FX, Keys, Leads, Pads, Perc, Pluck and (as you might expect, loads of) Synth.

Now, we'd guess the developer behind this is a Depeche Mode superfan. Not only have they come up with sounds that are very much like they say on the tin, but they've chosen some pretty obscure ones as well. So you get the *Everything Counts* Lead sound and the *Just Can't Get Enough* bass, but you also get the synth sound from *The Sun And The Rainfall*, a far less obvious choice.

Some of the presets, of course, work better than others, but even when they are little like the originals, they do have a very DM feel about them and they might breathe new life into your songs, whatever genre you work in.

As fans ourselves, we'd like to see not only more sounds (we just can't get enough, as the 6GB offers around 180), but more



controls on the screen (there's precious little on the GUI and even a fly would do on this particularly blank screen). We do like its stripped-back and cool look, yes, but even an output level would do, as some presets are quieter

than others and maybe should be higher. Having said that, it is just \$29 and there's no question of the time Looplords has put into it. A great effort, and how many titles did you get? **MT**

Key Features

- Depeche Mode plug-in
- 6GB download
- Nearly 200 sounds from classic era to modern 'Mode

MT Verdict

It might not be for the masses, but if you are a Mode fan, this is actually heaven in a plug-in.

8/10

→ Yamaha HPH-MT8

Manufacturer **Yamaha**

Price **£170 (street)**

Contact **0844 811 1116 (UK)**

Web **www.yamahaproaudio.com**

Yamaha's HPH range of headphones is 'focused on delivering sonic accuracy' and we looked at the entry-level HPH-MT5s from the range last month. Those are half the price of the top-end HPH-MT8s on test here and we thought they represented very good value for money, concluding "great sounding and lightweight headphones like this will fill you with joy and enthusiasm for long mixing sessions – a factor you should consider – but do go easy on the bass".

Ironically, among the things you're paying the extra for here, is an extended bass – the 8s go down to 15Hz, five less than the 5s. So while we thought the 5s were perhaps coloured for low-end liveliness, we're hoping

the 8s will deliver more naturally. Other enhancements include a larger driver to help deliver that bigger frequency response, and they also deliver a slightly better sensitivity and a lower impedance.

Feel-wise, they are a step up. Our only other criticism of the 5s was a slightly plastic feel, but there's no such criticism here. The 8s have a similar headband and ear enclosures, but the earpiece texture is of a better quality and feels just a little more comfortable. Closed-back headphones like these offer a good mix experience, partly by cutting out noise from the outside world and these do that well, although not significantly more than the 5s.

So far, so 'not significantly better' than the 5s, so the money must have been spent on the sound, right?

Well, you'll be pleased to hear that the answer is 'Yes', but there is the usual caveat. The 5s do sound a little better in terms of a listening experience, because of the colouration we mentioned. The 8s, though, have it in the accuracy stakes. Again, with our standard

test tracks – Talk Talk, The The and any other band with a repeated name – the 5s offered that pleasant vibe, while the 8s delivered the flatness. It's the latter you want of, course, in critical mix situations. The 8s offer enough detail for you to hear separation between bass and mid elements, while with cheaper 'phones, this can often get muddled. The 8s have it for mixing and were even up there with our £600 reference 'phones in terms of the detail – but we might just be tempted to get those 5s in for some easy listening. **MT**



Key Features

- Closed-back headphones
- 3D arm-pivot construction
- 45mm CCAW dynamic voice-coil drivers
- Over-ear design for isolation
- SPL: 102dB/mW
- Imp: 37 ohms
- Max i/p power: 1600mW
- Frequency response: 15Hz-28kHz
- 1.2m coiled cable, 3m cable, 3.5mm plug, 6.3mm adaptor, carry case
- Weight: 350g

Choice
9/10
MusicTech

Value
££\$
MusicTech

MT Verdict

For the price, these 'phones stand up to models that cost a lot more in terms of accuracy – a great buy.

9/10

UVI Rotary

Developer **UVI**

Price **€79**

Contact **via website**

Web **www.uvi.net**

You'll know the distinctive sound of the Leslie or rotary speaker. It's that swirling effect so beloved by jazz musicians – who use it on organ sounds – and by bands including The Beatles, Pink Floyd and The Beach Boys – who experimented with anything from pianos to guitars through the dual speaker system.

A rotary speaker uses a two-way bass-and-treble speaker setup which literally rotates at varying speeds. This can be controlled by the user to create the swirling effect that can sound slow and pulsing at what is called the Chorale speed and more like a tremolo effect at higher speeds.

There have been several emulations of the speaker over

the years and this one, Rotary from UVI, claims to be both a homage to the original and an evolution of its sound.

It's a straightforward download and installation process that requires an iLok account, but this is pretty easy to get and activate the software with (the iLok activation software is included with the download).

The interface is simply stunning and by that, we mean 'simple' and 'stunning'. A Brake 'lever' selects three positions between the aforementioned Chorale and Tremolo settings, both adjusted with 'classic'-style rotaries. Four more of these adjust amplifier settings for Drive, Horn and Drum (the treble and bass speakers) plus overall Gain. Do be careful with the Gain setting, as the presets do run quite hot – so be prepared to reduce levels.

Once you get dialling – and do this before trying the presets – you'll see what drama can unfold. And what sonic mayhem! The Drive is beautifully grungy

and the speed controls add even more variation than you can believe (or remember from the real thing) very quickly. The best fun, though, is with the mic-placement controls in the top half of the screen. These can be moved individually, or the controls alter their angle, distance, skew and width together to get some incredible variations across the stereo image.

You should try Rotary with non-organ or expected sounds – imagine you're a Beatle while you're at it, why don't you? It's a stunning plug-in effect that almost becomes a creative synth on any sound you choose. Superb. **MT**

Excellence
10/10
MusicTech

MT Verdict

A creative effect that offers drama, dirt, tremolo and swell, all behind a simple interface. Quite brilliant.

10/10



Key Features

- Rotary-speaker emulator
- Choose mic positions with four options
- Two speed controls and manual switcher
- 24 presets across five instruments
- 7 amp models
- Secondary menu for Drum, Horn, Box and other settings
- Mac and PC, AU, VST, AAX formats
- Requires iLok account

Glimmer

Publisher **Mode Audio**

Price **£18**

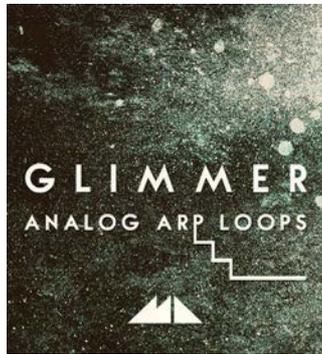
Contact info@modeaudio.com

Web www.modeaudio.com

Glimmer from Mode Audio is a collection of shimmering, atmospheric analogue arpeggio loops, deep, sweeping chords, throbbing basses, sound FX and glitched, drum-machine loops. The pack is available in a choice of formats and includes 150 audio loops, 135 MIDI files, and 103 tail samples that can be used to give the loops a smooth decay, or as a source for new sample instruments.

Variety in the filtering, envelopes, synthesis and reverb choice help give each loop its own character, and good use of filtered stereo delay adds subtle width. There's excellent layering, and you also get 135 MIDI files you can add your own sounds to, or which you can edit to create new patterns. **MT**

Choice
9/10
MusicTech



Key Features

- Shimmering synth arpeggios and loops
- WAV, Apple Loops, REX2, ReFill or Live formats
- 525MB, 96 to 124 BPM
- 150 Loops, 103 tail samples and 135 MIDI files
- 1 Project file for Live, 20 Dr. Octo Rex Reason patches

MT Verdict

A collection of expertly sound-designed, beautiful and atmospheric synth arpeggios, backed up by decent chords, SFX, synth bass and glitch drums.

9/10

Complete Guide To Maschine Jam

Publisher **Producertech**

Price **£34.95**

Contact [via website](http://www.producertech.com)

Web www.producertech.com



Complete Guide to Maschine Jam

Nl's Maschine Jam brings a new performance and programming interface to the Maschine Studio software, and this course explores it over three hours of streamed videos. The 34 videos begin with two chapters on the hardware and software, then covers programming drums and melodies, mixing with the Touchstrips, using the Arpeggiator, playing with Scenes, performance FX and more, before finishing with a set of videos showing how to use Jam with Ableton Live and Logic. There's a

Choice
9/10
MusicTech

great amount of depth and detail and you also get the Maschine projects to download, and four free kits from Niche Audio. **MT**

Key Features

- Online NI Maschine Jam Course
- Over 3 hours of streamed video
- 13 Modules and 1 bonus Module
- Includes projects and 4 bonus kits
- Written and presented by Rob Jones

MT Verdict

A well-presented, in-depth tutorial that's great for newcomers to the Maschine platform, and also for more experienced users looking to explore the new hardware.

9/10

Maribou State Organic Synthetic

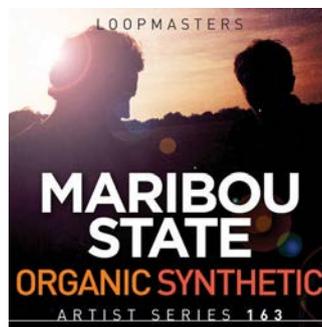
Publisher **Loopmasters**

Price **£34.95**

Contact info@loopmasters.com

Web www.loopmasters.com

Production duo Maribou State adds to Loopmasters' Artist Series of sample packs with a large collection of soulful and organic, live and electronic elements. The pack includes 1.45GB-worth of 24-bit audio, with 202 loops, 436 one-shots, and 125 sampler



patches. Every corner is filled with inventive sampling and processing; there's a lot to explore, and a wide range of tempos. The production throughout is superb, and there's a mix of straighter grooves and experimental, wonky riffs. **MT**

Excellence
10/10
MusicTech

MT Verdict

A phenomenal pack brimming with live and electronic musical ideas, inventive production, and organic found sounds.

10/10

Key Features

- Written and produced by Maribou State
- Soulful electronic and live loops
- 202 loops, 436 one-shots
- Wav, Apple Loops, REX2, Ableton Live, or ReFill formats
- 125 Patches for Kontakt, EXS24, NN-XT, HALion, and SFZ

Endless Smile

Publisher **Dada Life**

Price **\$39 (\$59 bundled with Sausage Fattener)**

Contact info@tailorednoise.com

Web www.dadalife.com



Swedish music duo Dada Life have released a follow up to their popular Sausage Fattener plug-in, which allows you to create over-the-top EDM-style build-ups using a single knob and a highly amusing animated character. Endless Smile is a super easy-to-use AU and VST effect, with a complex array of filters, reverbs, delays, EQs, barber poles, phasers, distortions, LFOs and more under the hood. There's a single Intensity dial and seven presets ranging from soft to extreme. It's arguably a bit of a cheat plug-in that will probably

get overused, and you could get similar effects using complex Ableton FX racks or Sugar Bytes' Turnado. However, it sounds great and can be used live, on the whole mix or on busses or instruments, and could save you a lot of time programming in automation. **MT**

Key Features

- Fun build-up FX plug-in
- AU and VST 2.4
- One Intensity dial
- 7 presets from soft to extreme
- Created by Dada Life

MT Verdict

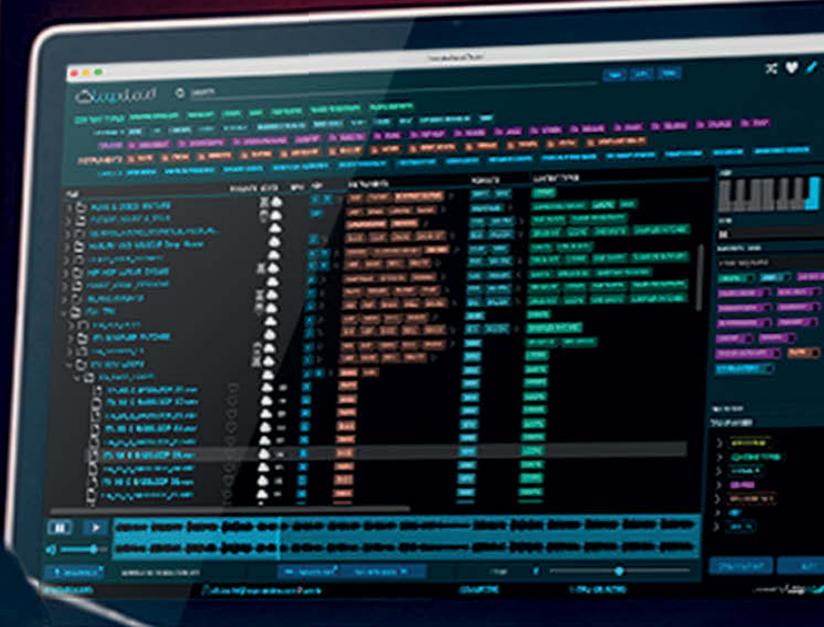
A fun, niche plug-in for creating instant, big-sounding risers that we'll no doubt hear on countless tracks this year.

8/10



Am

ATMOS



loopcloud

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Welcome to the **MusicTech Buyer's Guide**, where we round up some of the best products recently reviewed in the magazine. This time, six of the best **interfaces** – everything from cheap to (ruddy) expensive. We even throw in a mixer...



BEST Soft combo

PreSonus Studio 192

Very often an audio interface is matched with software to interface with your own setup. The software with the PreSonus is no bolt-on; it's so feature-packed, we suggested that "you'll end up using it more than most interfacing software, as it makes remote control a proper reality." For the mid-range money, it also comes with a

top-end set of connections: 26 ins and 32 outs with eight mic and line ins, eight line outs, plus main outs, and ADAT and coaxial making up the digital numbers. We said: "In terms of ease of setup and use, Studio 192 delivers a good audio performance and bags of extras. **It's quite rightly called a Studio Command Centre – you get a lots of connectivity together with a great spec.**"

Details

Price
£719 (street)
Contact
Source
Distribution
0208 962 5080
Web
www.presonus.com



BEST Mobile

Audient iD4

This diminutive interface from Audient is small, portable and cheap, so could be among the best entry-level choices if you're just starting out. It's pretty simple feature-wise, but Audient has packed lots into a compact box. There's a single mic preamp, a DI, stereo outputs and twin headphone outputs – all fitting in the palm of your hand.

Reviewer Mike Hillier got some very clean recordings during his tests and was impressed with the unit overall.

"If you're looking for a small audio interface that doesn't compromise audio quality for recording while on tour, or simply because the additional channels are not something you'd ever need, the Audient iD4 is an excellent solution."

He concluded: **"The iD4 is a simple and useful tool, which could make an ideal second interface for portable work, or as a quality interface for electronic in-the-box musicians."**

Details

Price
£119
Contact
Audient
01256 381944
Web
www.audient.com

BEST Focusrite!

Focusrite Red 8Pre

To be honest, we could have chosen a few Focusrite interfaces – the company is the master of them, after all – but as Sir Sean Connery might have said: "There can be only one."

We've chosen the Red 8Pre, as it's twice a 4Pre (also on our list) and at £3,200, really does represent something of a pinnacle of interfacing for Focusrite. Reviewer Mike Hillier

certainly agreed, giving it a whopping 10/10. He said: "The Red 8Pre has everything you'd need to centre your studio around. With integration all built in, for use with ThunderBolt, DigiLink or Dante-equipped Macs, the Red 8Pre is perfectly positioned for any studio upgrade." He then concluded: **"An absolutely incredible interface, which ensures connection possibilities for almost all conceivable studio needs."**

Details

Price
£3,200
Contact
Focusrite
01494 462246
Web
uk.focusrite.com



→ **BEST** For options

RME Fireface UFX+



In joint-first place in terms of power and flexibility – along with the Focusrite Red 8Pre – RME's Fireface UFX+ is packed full of connectivity, with a total number of 188 inputs and outputs. Reviewer Marc JB was so full of praise for the unit that he actually bought one after the test. "Having a

UFX+ simply helps sell my studio to clients, as it gives a recognised and reassuring stamp of quality – they know that they are going to get a pristine, professional sound. **This is a perfect hub for a pro, futureproof studio, and delivers a sublime workflow and crystal audio quality.**"

Details

Price £2,220
 Contact SynthaxAudio
 01727 821870
 Web www.synthax.co.uk

BEST iOS and more

Korg plugKEY

Well, we guess you can't accuse us of not covering everything in this roundup. We go from £3,200 interfaces through those bolted to 24-channel mixers, right down to this little beauty, which is more connector than interface – well, that's what interfaces do, right? plugKEY allows you to plug any MIDI-based keyboard into an iOS device (iOS 8 or later) and play it – hence the name. Essentially, it turns your iPad or iPhone into a standalone sound module by disabling the audio which then routes through its own output. "Connect up your MIDI and, behold, you're playing your apps. This is as easy and cool as iOS gets. **Easy-to-use, simple concept, no delays, and great audio. Korg's plugKEY really is a great way to welcome your iOS device to your studio world.**" **MT**

“You can choose from **£3,200 interfaces** to ones bolted to a **24-channel mixer**, right down to the **plugKEY**, which is **more connector than interface...**”

BEST ...with added mixer

Allen & Heath QU-24

Okay, this is not just an interface but the very definition of interface and mixer is blurring these days, with one doing much of the work of the other. Think of this, then, as a 24-channel USB interface... with faders. Anyway, when it comes to hands-on mixing and interfacing with your DAW, it doesn't

come much better than this. Reviewer Mike Hillier said: "The Qu-24 is an incredible desk. All the extra features, fantastic effects, traditional mixing features and the fairly fast learning curve mean that it will find many fans. **It's set to become a live favourite and a great addition to any DAW-based recording studio.**"

Details

Price £2,199
 Contact Audio Technica
 0113 277 1441
 Web www.allen-heath.com



Details

Price £85 (street)
 Contact Korg
 01908 304600
 Web www.korg.com



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TELEPHONE: 0843 515 0600

MT Beginner's Guide

THE COMPLETE GUIDE To Virtual Instruments

Welcome to the new **MusicTech** Beginner's Section, designed for newcomers to the world of music production. Last time, we looked at DAWs – the central components of the modern studio. Over the following pages, we look at the range of instruments you can run in them...

In our opening Beginner's Guide, we looked at the central piece of software that's used on the central piece of hardware within practically every modern music-production studio: the DAW (Digital Audio Workstation). DAWs are used on laptop or desktop computers, or mobile devices such as a phone or tablet. They can do pretty much everything you need to make music. Most come with huge lists of features and offer you all of the power, sounds and instruments you need to make professional-sounding music. It's these 'virtual' instruments that we're going to look at in more detail this time around, as they've become a key part of music production in the 21st century. They can replicate any 'real' instrument – guitars, drums, pianos and so on – from the outside world, or even come up with futuristic or fantastical sounds by way of synths, or huge libraries of otherworldly sounds. Best of all, you don't need the physical skills to actually play the instruments they recreate, as you can simply trigger their sounds via a keyboard controller or even your computer keyboard – a complete virtual orchestra at your fingertips!

Plug-in to plug in

Virtual (also known as 'plug-in' instruments) came to prominence around 20 years ago (yes, really, computer music fans) after Steinberg developed the VST (Virtual Studio Technology) platform that enabled software instruments to run within DAWs (then more commonly known as sequencers).

Steinberg's first proper virtual instrument was a synth called Neon, which recreated the interface and sounds of an analogue hardware synth – see boxout. As processor power increased, a huge number of more complex virtual instruments started appearing, with more emulations of 'real' instruments – that is, guitars, pianos and other acoustic instruments – and more complex synthesisers, which could eventually do things in the virtual environment never dreamt of in real life.

More and more companies appeared and produced excellent emulations and fantastical instruments. Arturia, Native Instruments, GForce, Fabfilter, U-he, Spectrasonics, UVI, Rob Papen, Waves and iZotope, to name but a few – all of these have produced incredible and notable plug-ins. More recently, Spitfire Audio, Toontrack, Big Fish Audio, Melda, Heavyocity, Output, and Best Service are part of a newer breed of companies producing ever-more-complex instruments and sample libraries, which can be controlled and recorded within your DAW. They offer everything – from simple guitar strumming to elven singing; from an emulation of a theremin to an emulation of a £100,000 grand piano – all playable within your laptop.

A thriving freeware scene has also emerged, where people developed their own instruments for everyone to use, free of charge. Now, there are literally thousands of them available for you to download and use in your DAW. They represent a great way to get into music production, as you can find everything you need to make complete tunes without spending a cent. *MusicTech* runs regular freeware roundups, so be sure to check out our next one in a few issue's time, or check out the best freeware at www.musictech.net.

Formats

We're going to delve into the murky world of virtual instrument formats now. You'll see that all major



THE FIRST VI CAN BE YOURS!

As we mention above, Neon – an emulation of a simple analogue synth – was the first VST, developed by Steinberg nearly 20 years ago. Steinberg has now made this free, along with some of the company's other early instruments and effects, and it's a great way to check out a little plug-in history and get going in the world of virtual instruments. We've tried it out – it's a massive 1.9MB download – and got it working in the new Reason 9.5 VST environment without any trouble whatsoever.

A virtual instrument in a DAW

a THE TRACKS
The tracks of the DAW, in this case Apple's Logic, are shown top to bottom. Here, we have four tracks assigned to different virtual instruments

b THE MIXER
The mixer shows which virtual instruments are assigned by way of the Input channel. You can see the first three channels are the same as the first three tracks above

c INTERNAL VERSUS EXTERNAL
Most DAWs have virtual instruments bundled with them, so you can use them alongside third-party ones. Here, we've used Logic's Electric Piano, which is also open on-screen

d LIBRARY
DAWs that come with their own plug-in instruments will have a library (in this case) or a browser, which you use to select them



e GRAPHICS
Using Logic's instruments automatically assigns a graphical representation of the instrument from the library to the track

f SELECTING A PLUG-IN
For third-party (external) plug-ins, click on the input channel on your mixer to change the instrument that's supplying the sound to that mixer channel

g MENU
In Logic's case, this will open up a drop-down menu offering you the choice of all the instruments that you have installed in your plug-ins folder

h SELECT
In this case, you choose by name. In some DAWs, plug-ins can be searched for, especially useful if you have a lot of them in your collection

sequencers have their own formats for virtual instruments, but the good news is that there's now increased cross-platform compatibility, so that plug-ins developed for one DAW can now work in another. Also, most plug-ins are developed for the main formats – so when you buy one, you simply choose and install the format that works within your DAW.

You can, then, choose to skip to the next paragraph without fear of missing anything, but we'll give you a run through of the main formats anyway. The VST format is arguably the most common one, and was developed by Steinberg to work in Cubase on the Mac and PC. However, DAWs such as Ableton Live, Studio One, FL Studio, SONAR and now Reason (see the tutorial later in this feature) support the VST format, so will run all VST plug-ins. The AU (Audio Units) format was developed by Apple to run on Logic for the Mac but again, will run in Ableton Live. RTAS (Real Time AudioSuite) was developed by Digidesign for Pro Tools and works with that software up to v10. AAX (Avid Audio Extension) is the latest format for Pro Tools developed by Avid.

Other DAWs plug-in formats include Reason's Rack Extensions (many third-party companies have developed for this format and Reason also now runs

There's a **huge number of freeware** virtual instruments, which are a **great way to get going in music production**

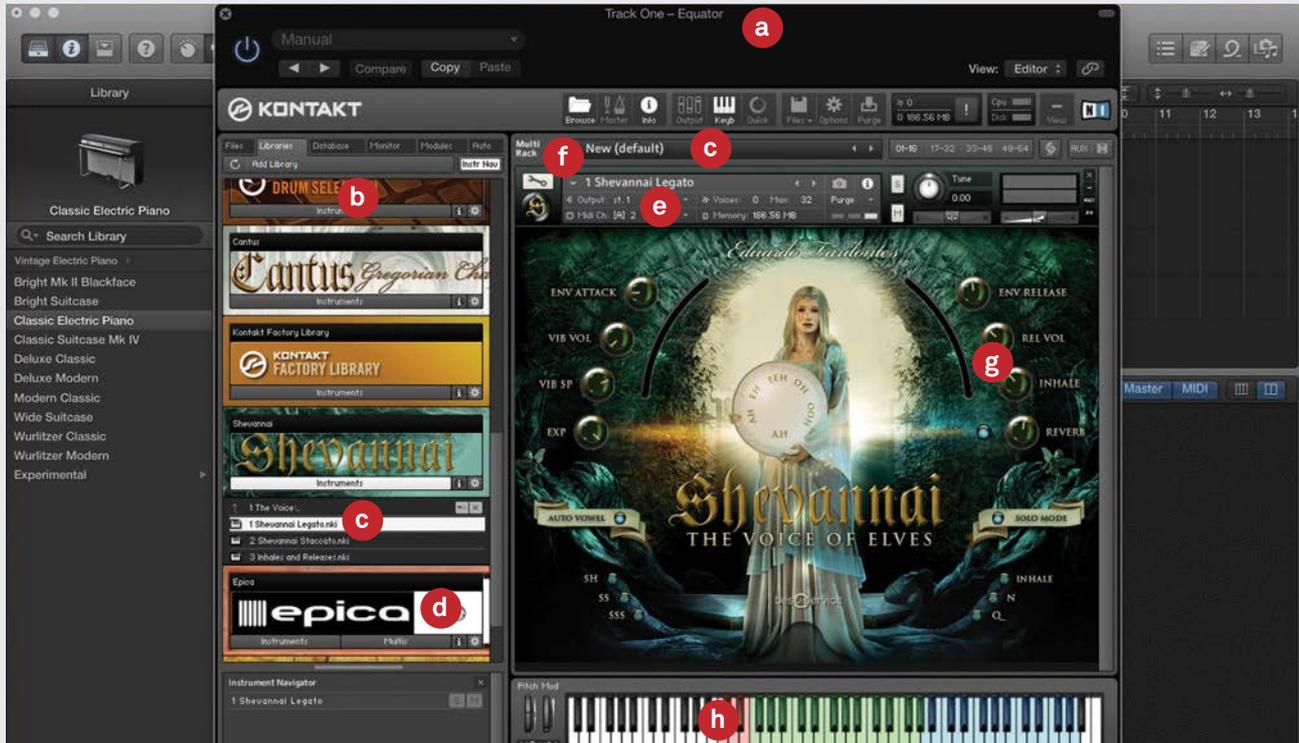
VSTs); Cakewalk's old DirectX format (it runs VSTs, too); and Mark Of The Unicorn's MAS (MoTu Audio System) format for Digital Performer (which also supports AU and VST).

Finally, there are several players that act as shells for multiple third-party companies to run their plug-ins within, but also work like plug-in instruments within the major DAWs. Native Instruments developed Kontakt, which generally deals with instruments that are more like libraries of sounds. It's a shell that allows you to play these libraries, many of which are developed by other companies (although NI arguably has the best complete set of instruments, in its Komplete Ultimate collection). See above for more on the Native Instruments Kontakt environment.



Native Instruments' Kontakt overview

- a A NORMAL INSTRUMENT**
Some companies have devised 'shells', which host other instruments but load as a 'normal' virtual instrument within your DAW. Here's Kontakt...
- b THE LIBRARY**
Native Instruments' own library of instruments appears here. Whenever you add third-party, Kontakt-format instruments, they also show here
- c PRESETS**
Open the presets within each by clicking the folder icon and then browsing through the sounds. They're often complex sounds and they may take time to load
- d MULTIPLE INSTRUMENTS**
You can load multiple instruments in, so maybe choose Epica as well (as shown) and it will appear beneath the one you have loaded (currently Shevannai)



- e OUPUTS**
If you have multiple instruments loaded from your library, it's a good idea to assign them each a different output... unless you want a huge sound, that is
- f OTHER PARAMETERS**
Lots of other parameters can be adjusted – from the main volume, solo and mute to more detailed features within a tools menu
- g CONTROLS**
Each instrument you load into Kontakt usually has its own sound-shaping controls, from simple effects through to full-on synthesis options
- h COMPLETE KONTROL**
One of the beauties of the Kontakt environment is that it can be married to Complete Kontrol hardware, which duplicates a lot of the features in hardware for easy control over the software

DAWs are packed with effects.
There's **one main rule: don't overuse them** – try and get a **decent recording** to begin with

→ **Library versus instrument**

Which leads us nicely to the very definition of 'instrument' versus 'sample library'. Many of the instruments we review in *MusicTech* are essentially huge collections of audio samples – check out the orchestral ones in our Buyers Guide later for some prime examples of these.

There's some argument over whether these are true instruments, or simply gigabytes of audio – indeed, some companies insist we refer to their collections as libraries, rather than instruments! However, we still count them as instruments, because they will very often be playable within a shell like Kontakt or the UVI Player of Best Service's Engine. While instruments that process their sounds without needing to access huge amounts of data are sleeker and less cumbersome, when all's said and done, you can play and record music

using all of these systems, so we're not precious in terms of definitions. In short, any piece of software you can play, manipulate and record within your DAW or even standalone is a virtual instrument in our book, so we've included them all.

Today's virtual world

And so we reach the world of the plug-in instrument today – and it's a world full of great instruments, consisting of many different kinds and types.

We've broken it down into some main categories in our Buyers Guides, including synths, real instruments and orchestral tools. The synths are either emulations of classic pieces of hardware, or completely new instruments. The 'real' instruments cover anything from acoustic pianos to xylophones, while the orchestral tools very often put every instrument in an orchestra at your fingertips, while aiming at different styles of music including cinematic and classic.

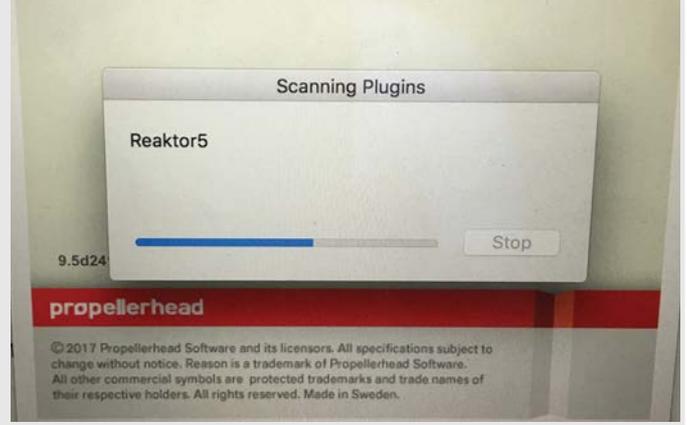
To be honest, we could go on and on – as there are other categories to consider, including percussion (we have a Beats Special feature covering those, beginning on p8 of this issue) and even within the categories we've chosen, there are hundreds – if not thousands – more options worth exploring. The virtual world is a huge and ever-evolving world of musical possibilities, but our

MT Step-by-Step Using VSTs in Reason



01 Reason has always been a great virtual instrument environment, with its own award-winning instruments such as Thor, Kong and Malström all easy to use via Reason's virtual Rack.

02 You can even flip that Rack around and look at the virtual 'back' of the instruments within it, changing connections and routing the audio signals through different devices, such as effects.



03 In order to get third-party instruments into Reason, Propellerhead devised Rack Extensions, which enable external developers to run their instruments within the Reason Rack.

04 With the release of v9.5, though, Reason users now have access to the entire world of VST instruments and effects. 9.5 is free for Reason 9 owners and when you update, the software scans your system for VSTs (reviewed on p78).



05 Now Reason 9.5 shows all of the VSTs that you have installed within its Browser, which you can drag into the Rack, each with default VST Plug-in logos. They look pretty dull, but don't worry...

06 Click on the VST logo to load it, then click the Screenshot icon, and the default logos are replaced with proper versions of the instrument. VSTs in Reason! Is this the best of all virtual worlds?

selections will give you as good a starting point and introduction to it as any.

As to the future of the virtual instrument? Expect to see more cross-compatibility, so that every instrument will be available on every platform. There will also be a greater degree of hardware involvement, as people still love the feeling of turning real dials and knobs rather

than using a mouse. There will be more integration with hardware controllers and we'll continue to see hardware inspired by software, like the new Teenage Engineering Pocket Operator 32, which takes its inspiration from Sonic Charge's Microtonic software (reviewed on p80). Whatever happens the virtual world is an ever more exciting one, so dip in, enjoy and make great music. **MT** →

MT Buyer's Guide – Virtual Instruments

There are so many virtual instruments out there that it would be impossible to list them all on these pages, so we've grouped the best ones that *MusicTech* has reviewed into various categories...

Synths



← GFORCE ODDITY 2

Company GForce
Price £139.99
Format AU, VST, RTAS

One of the finest emulations of a classic synth around, but it goes beyond that now and has developed into a classic (virtual) instrument in its own right.

We say "Oddity 2 is a triumph.

We love the extra mod options and using it as an effect, but best of all is Polyphonic Mode – a feature that takes Oddity to new heights. If ARP had carried on as a company, this is the synth it would have made now."

Web www.gforcesoftware.com



← SYNTHMASTER

Company KV331
Price \$129 to \$379
Format VST, AU, AAX

Simply one of the best soft synths out there and it's not only just us that says this, but the readers of *MusicTech*, who voted this Best Synth Of The Year last year. Who the

heck are we to argue?

We say "It really does an incredible amount in a no-nonsense, almost calm way. So sit back, don't panic and enjoy the ride. It does what it says. It truly is a master of synths."

Web www.synthmaster.com



← BT PHOBOS

Company Spitfire Audio
Price £269

Format VST, AU, AAX, standalone

Phobos is one of the newest kids on the virtual synth block and the first one from Spitfire, a company well regarded for its orchestral collections. Phobos is a collaboration with the producer BT (hence the name!)

We say "The big atmospheres definitely have a space in space, but the little nuances and experimental aspects of the software mean it could – and should – be applied everywhere and anywhere. If you want something different, then BT Phobos is right out there and will have you exploring new worlds and realities. Excellent!"

Web www.spitfireaudio.com



← BLUE II

Company Rob Papen
Price €149
Format VST, AU, AAX

Blue is one of the oldest synths around having been developed in 2005, but its latest version, II, is a complete update of what was already a monster engine – and it's capable of pretty much any sound you can dream up.

We say "The synth moves from the late 80s through the 90s, noughties and very much more up-to-date, with some absolutely huge presets that would easily carry a tune from any era. Blue II is any synth you want it to be and a lot more."

Web www.timespace.com



← SOFTUBE MODULAR

Company Softube/MSL Pro
Price £69/\$99
Format VST, AU, AAX

Modular synths are all the rage these days in hardware. If you've ever wanted to dabble, but have been put off by the price, here's a way to do it in software for a fraction of the cost.

We say "Modular is a great investment if you want an inexpensive version of modular on the move. The overarching fact is, it sounds huge and certainly to our ears, there's some very realistic modelling of third-party modules. The overall sound of this soft synth will excite many, but you'll need to put in some time to realise its full potential."

Web www.softube.com



← OMNISPHERE 2

Company Spectrasonics
Price £285
Format VST, RTAS, AAX

To many, this is quite simply the greatest soft synth ever made. The original version blew many people away with its sheer sonic force and

this update might have been years coming, but has certainly proved to be worth the wait (and the price).

We say "While some have got close to Spectrasonics' greatness, for us, there's little doubt that Omnisphere 2 will set a new gold standard for the next few years. It oozes class and sophistication and is an essential purchase for all."

Web www.spectrasonics.net



← REAKTOR

Company Native Instruments
Price £169
Format VST, AU, AAX

This isn't just one synth, but a complete instrument-development library and platform, where you can use the NI library or a huge user

library of plug-ins – or even, if you know your onions, develop your own. There's also a complete virtual-modular setup now available called Blocks.

We say "The daddy of all synths, because it can be any synth, Reaktor has been around for years. At a new lower price, it's a must for synth experts."

Web www.native-instruments.com



← FALCON

Company UVI
Price \$349
Format VST, AU, AAX

If you like your synths to have layers of possibilities and to sound stunning, then Falcon could be what you are after. It's a complex synth and allows you to sample your own sounds in, too. It's hugely flexible,

but often a tad complex.

We say "If you feel like really getting your hands dirty with some real sonic creation, this is something you should consider. There's no doubt that the Falcon is a sonic powerhouse, but to become a power user, you'll need to really learn how it works – but you'll be rewarded with sonic gold."

Web www.uvi.net



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- + Plugin News & Techniques
- + Studio Tips & Workflow Hacks
- + Synthesis & More



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MT Buyer's Guide – Virtual Instruments (cont'd)

Real-instrument emulations



← VINTAGE COLLECTION

Company Big Fish Audio
Price £280

Format Runs in free Kontakt player
This combines three of Big Fish Audio's virtual instruments – Vintage Horns, Strings and Rhythms – which, when bought together, represents a saving of over £130.

We say "A very impressive collection of instruments for anyone wanting to add a more authentic, old-school flavour to their productions."

Web www.timespace.com



← THE FLUTES

Company Sample Modeling
Price £225

Format Runs in free Kontakt player

Want flutes? You've come to the right place. This uses Synchronous Wavelength Acoustic Modeling (SWAM),

combining samples and physical modelling for an ultra-realistic result. **We say** "It provides a highly malleable playing experience and a great alternative to the traditional sample-library flutes, which can be difficult to play in real time. Only slightly let down by a less-than-vibrant tone for classical styles, but great for jazz!"

Web www.samplemodeling.com



← SESSION KEYS GRAND

Company E-Instruments
Price €99 each

Format Runs in free Kontakt player
Session Keys Grand S and Y are two acoustic grands recorded in great detail that aim to put concert-ready sounds at your fingertips. They weigh in at just under 5GB apiece and you can buy the two for a bundle offer of €159.

We say "Great-sounding and

playable piano with excellent sound-shaping controls and innovative generators that open up the possibility of complex musical figures, even to those without advanced keyboard skills."

Web www.e-instruments.com



← THE GAMELAN

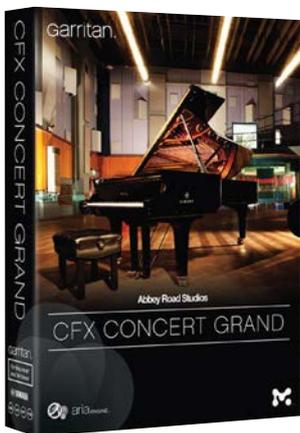
Company Sample Logic
Price \$399

Format Runs in free Kontakt player
Sample Logic has combined sampling and synthesis with some of the most advanced Kontakt instrument design around to produce a real monster of a sound-design tool, and one based around one of the most evocative instruments there is.

We say "Don't be fooled by the name, there's much more to Gamelan than meets the eye. A versatile and powerful cinematic and

sound design instrument with plenty of controls."

Web www.samplelogic.com



← CFX CONCERT GRAND

Company Garritan
Price £199

Format Runs in free Kontakt player
This is an emulation of the Abbey Road Studios CFX Concert Grand, a nine-foot, hand-built Yamaha grand piano. It's big – at 122GB – but there is a cut-down version weighing in at 25GB.

We say "It's one of the finest virtual pianos available – simply beautiful. A fine virtual grand piano with a beautifully rich tone, a no-nonsense GUI and essential controls. It is up there with the best."

Web www.timespace.com



← EZ KEYS PIPE ORGAN

Company Toontrack
Price £95

Format Runs in free Kontakt player
This is the result of a meticulous recording of the organ installed in the

Täby Kyrka, a historic Swedish church dating back to the 13th century. Thankfully, after such a painstaking task, the results are quite brilliant. **We say** "One of the best pipe organs that we have come across, especially at this price point. It's extremely gratifying to play, mainly because of the extremely clear sound. A majestic-sounding instrument, with a beautifully clear sound and suitable for many types of music."

Web www.timespace.com



← UNA CORDA

Company Native Instruments
Price £129

Format Runs in free Kontakt player
Una Corda is a little different to many other piano simulations, offering up a deeply sampled version of a unique piano instrument, which was hand-built by David Klavins in collaboration with composer Nils Frahm.

We say "It's been created with love and attention, and the results are often breathtaking. It's an inspiring instrument that oozes class. An effortlessly atmospheric and beautifully prepared piano instrument."

Web www.native-instruments.com



← EPICA BASS

Company Sam Spacey
Price £89

Format Runs in free Kontakt player

Okay, so it's not emulating one instrument, but many. If you like bass sounds, this pretty much does them all – and it's also really great value, considering the incredible amount you get.

We say "The tweakability and programming options onboard allow you to create anything you want and the presets are so good, you'll find it difficult not to use them just the way they are. This is a fantastic library of bass sounds."

Web www.timespace.com

Orchestral



← PERSONAL ORCHESTRA 5

Company Garritan
Price \$149
Format AU, VST and AAX via ARIA player

Garritan Personal Orchestra gives you a complete orchestra – strings, brass, woodwinds, percussion and keyboards – now including over 500

instrument choices, along with the techniques and control you need to hear your music.

We say “Garritan’s Personal Orchestra has always been a highly efficient and great value-for-money orchestral library with a fast workflow and respectable sampled instruments. Version 5 is even better, with improved sounds and a helluva lot more of them.”

Web www.timespace.com



← MIROSLAV PHILHARMONIK 2 CE

Company IK Multimedia
Price €180
Format Based on SampleTank 3 plug-in

The original Miroslav Philharmonik Orchestra product came out over 20 years ago now. The full, newly

enhanced version features a range of extra content and there’s also this slimmed-down CE version, designed for those who want orchestral sounds on a budget.

We say “Miroslav Philharmonik 2 CE contains a very decent set of instruments and, if you’ll pardon the pun, this is where IK Multimedia’s offering scores very highly indeed – it’s fantastic value for money.”

Web www.ikmultimedia.com



← SOTTO

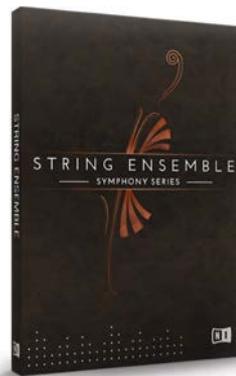
Company Sonokinetic
Price \$302
Format Runs in free Kontakt player

This is a phrase-based orchestral library/instrument from a range including Grosso and Capriccio, both of which focus on a grandiose cinematic sound – whereas Sotto concentrates on the lighter side of orchestral composition.

We say “Writing delicate orchestral music isn’t easy, especially for those without

formal orchestral knowledge, and for composers facing a tight deadline, this is a marvellously inspirational tool and a real timesaver. Bravo Sotto.”

Web www.sonokinetic.net



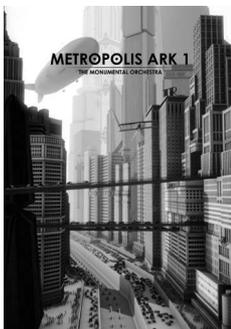
← STRING ENSEMBLE

Company Native Instruments
Price £429

Format Runs in free Kontakt player
 String Ensemble is part of Native Instruments’ Symphony Series, a set of libraries focusing on specific parts of the orchestra. Four Kontakt instruments form the basis of String Ensemble – violins, violas, cellos and basses.

We say “An excellent full-size string orchestra with a great sound, which is easy to use and is suited for both quick sketching and end-production use.”

Web www.native-instruments.com



← METROPOLIS ARK

Company Orchestral Tools
Price €549 +VAT
Format Runs in free Kontakt player

Ark is a complete orchestral library from MusicTech favourite Orchestral Tools. Where it differs from other libraries is that it’s designed with bombastic or dramatic trailer music in mind, the kind of over-the-top music that grabs your attention and doesn’t let go.

We say “Obviously, it’s not suitable for gentle orchestrations, but for powerhouse productions, we don’t think there’s anything to

match it at the moment. This should be the library to buy for any composers producing epic soundtracks.”

Web www.orchestraltools.com



← ALBION ONE

Company Spitfire Audio
Price £399

Format Runs in free Kontakt player
 Albion One provides a broad-brush approach to composing with a sampled orchestra. Instead of breaking sounds up into individual sections, they’re combined – high strings, low strings, high brass, low brass and so on.

We say “When it comes to all-round cinematic orchestral-sample libraries, few can match Spitfire Audio’s Albion One, which provides lush strings, powerful brass and thunderous percussion, along with a huge variety of organically derived loops and synth pads.”

Web www.spitfireaudio.com



← METROPOLIS ARK 2

Company Orchestral Tools
Price €599 +VAT
Format Runs in free Kontakt player

And where Ark 1 is big and bombastic, Ark 2 is more thoughtful and composed. Yes, this is the opposite of its brasher brother, an orchestral collection designed with low-key and more refined scores in mind.

We say “An exceptional collection of orchestral and non-orchestral instruments,

with many highlights that could easily make a real difference to your sonic palette. It oozes quality and variation in equal amounts and it might just change the way you score.”

Web www.orchestraltools.com



← SYMPHONIC BRASS

Company Spitfire Audio
Price £599

Format Runs in free Kontakt player
 Another of our offerings that is more sample library than instrument – as it weighs in at over 100GB – but this does give you more playable orchestral brass – trumpets, trombones, tuba and horns – than you could ever wish for.

We say “Expensive, so we have to say that we had high hopes of this library, and were not disappointed. This is a very fine and usable library, with a very extensive collection of everything brass, from instrumentation to articulation.”

Web www.spitfireaudio.com

MT Starter Studio Hardware ■ Software ■ Mobile Technology ■ Accessories

Welcome to our new feature in the **MusicTech Beginner's Guide**, where we choose a starter studio for a specific task or budget. This time, it's everything you need for an **iOS studio**...

Headphones

You'll want headphones rather than monitors for your mobile-music making sessions, and while there are many to choose from, they don't come better than these...

■ **Yamaha HPH-MT8**
 Price £170 (street)
 Contact **Yamaha**
 0844 811 1116 (UK)
 Web www.yamahaproaudio.com
 We said: "These 'phones stand up to models that cost a lot more – a great buy."

■ **Fostex TR Series**
 Price £155
 Contact **SCV London**
 0330 122 2500
 Web www.scvdistribution.co.uk
 We said: "Magnificent and dynamic. Our new go-to 'phone choice for music listening"



■ **Audio Technica ATH-E70**
 Price £280
 Contact **Audio Technica**
 0113 277 1441
 Web eu.audio-technica.com/en
 We said: "If you want streamlined listening, these are as good as it gets."

■ **Blue Ella**
 Price £699
 Contact **Blue via website**
 Web www.bluemic.com
 We said: "A spacious, tight, detailed and accurate sound. And they glow in the dark!"

Microphones

There are many solutions to record directly into your iOS device via a microphone. Here are our best four to choose from...

■ **RØDE i-XY**
 Price £135 (street)
 Contact **Source Distribution**
 020 8962 5080
 Web www.rode.com
 We said: "Two mics in one, for a wider capture and a great RØDE sound make this a great iOS option."

■ **Sennheiser ClipMic Digital**
 Price £199
 Contact **Sennheiser**
 0333 240 8185
 Web en-uk.sennheiser.com
 We said: "A professional-sounding clip mic, that can be used for anything from journalism through to singing."



■ **Apogee MiC96k**
 Price £185 (street)
 Contact **Sound Technology**
 01462 480000
 Web www.soundtech.co.uk
 We said: "A proper mic that plugs into your iOS device, delivering the quality you'd expect from Apogee."

■ **Shure MOTIV MV88 phone mic**
 Price £135
 Contact **Shure UK** 01992 703058
 Web www.shure.co.uk
 We said: "A great phone mic – and you get some vintage Shure vibe, too."

Interfaces

You don't always need an interface when you're out with your iOS device, but they're great when you want to plug back into your studio.



■ **Korg plugKEY**
 Price £85 (street)
 Contact **Korg** on 01908 304600
 Web www.korg.com
 We said: "Turns your iPad or iPhone into a sound module/instrument. A great way to welcome your iOS device to your studio."

■ **IK Multimedia iRig Pro**
 Price €158
 Contact **IKM via website**
 Web www.ikmultimedia.com
 We said: "You can plug pretty much any instrument into it, and therefore your iPad for recording."

■ **Focusrite iTrack One Pre**
 Price £119 (street)
 Contact **01494 462246**
 Web uk.focusrite.com
 We said: "Use pro mics without external power. That, and the quality Focusrite preamp, makes this one of the best mobile devices we've looked at."

■ **Apogee JAM96k**
 Price €129
 Contact **Sound Technology** on 01462 480000
 Web www.soundtech.co.uk
 We said: "Interface your guitar with your iOS device. The JAM is little bigger than a cigarette lighter, making it about as portable a solution as you could possibly desire."

DAWs

The DAW is still the central component in your iOS studio – as it is with your desktop setup. Here are four great options to consider...

■ **GarageBand**
 Price £4.99
 Contact **via website**
 Web www.apple.com
 We said: "Your first port of call for iOS sequencing. It does so much for so little outlay. Astonishing."

■ **Korg Gadget**
 Price £19.99
 Contact **via website**
 Web www.korg.com
 We said "Probably the best music-making app on iOS. Amazing!"

■ **Auria Pro**
 Price £34.99
 Contact **via website**
 Web auriaapp.com
 We said: "The most 'pro' app here – and the ideal choice if you're in a band and want to record gigs or studio sessions."

■ **Steinberg Cubasis 2**
 Price £49.99
 Contact **via website**
 Web www.steinberg.net
 We said: "Among the best DAWs to blend old-school sequencing with new-school touch."



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STUDIOSPARES PRO MICROPHONE STAND

Easily the UK's most popular Microphone Stand. Quality without compromise.



STAND WITH BOOM	448000	£12.90
STAND WITHOUT BOOM	648009	£10.62
SHORT STAND WITH BOOM	648070	£19.90
HEAVY DUTY BAG	458860	£7.99

More options online.

STUDIOSPARES FORTISSIMO MKII

Passive and Active speaker models with MP3, Bluetooth, 3 Band EQ and masses of power.



10P 10" PASSIVE	249300	£109.00
12P 12" PASSIVE	249310	£135.00
10A 10" ACTIVE	249330	£199.00
12A 12" ACTIVE	249340	£219.00

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BEHRINGER X32

Incredible features at an excellent price make this high quality 32-channel digital mixer hard to overlook, whatever the application.



X32	382820	£1925.00
X32 WITH TROJAN ROAD CASE	382825	£2025.00
X32 ROLLAROUND ROAD CASE	458720	£199.00

STUDIOSPARES M1000/M2000

The closed back M1000s have exceptionally accurate performance designed for studio monitoring and mixing. The M2000s are open back with an impressive open sound for accuracy and detail.



M1000 - CLOSED BACK	448760	£64.99
M2000 - OPEN BACK	448780	£64.99

TRUSTPILOT

EXCELLENT ★★★★★
9.5 CUSTOMER RATING

FOCUSRITE SCARLETT 2I2 2ND GENERATION

A 2 in / 2 out USB recording interface featuring two mic preamps. 24-bit performance, sample rate up to 192kHz. Low latency.



2I2	392210	£129.00
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STUDIOSPARES CP8+1

This power conditioner/racklight protects equipment from the silent killer, mains borne interference, spikes and surges. Includes 2 retractable variable intensity rack lights.



CP8+1	348160	£89.00
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Numan
AKG
beyerdynamic
Rolar
GENELE
20X
SHUR
M-AUDI
OLYMP

ALES
YAMA
MACK
behring
K&M KÖNIG &
Stands For Music

TASCA
NEUTR
ALLEN&H
audio
Focus
MON
INTERN

Fend

SENN
audio-tec

RØD

MICROPHO
Electro-V

Soundcr
DENON
marant

Stage Li
novati



6 (QUITE UNUSUAL) WAYS TO ENHANCE YOUR STUDIO

Studio life is not always about the latest cool synth or the fastest computer. There are other, more unusual, requirements to attend to in your production environment. Read on for six you may not have considered before...

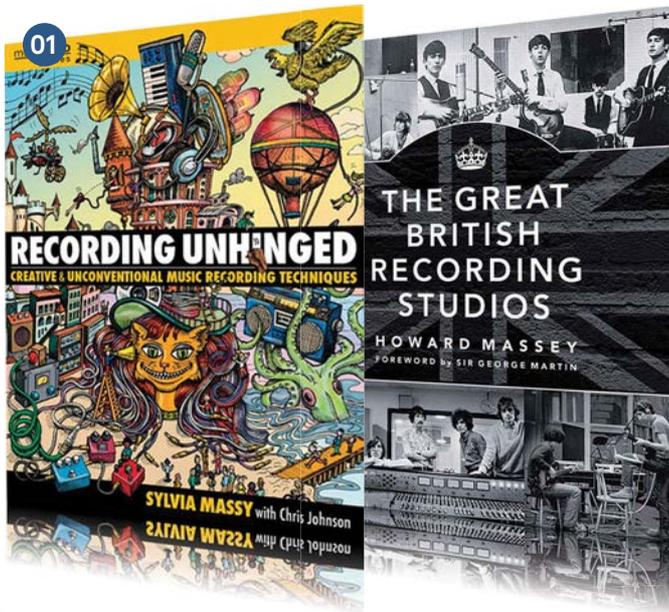
So it kind of goes without saying that you need a computer at the hub of your studio these days, plus some decent software to record and sequence music. Then, you'll need a microphone to get sound in via an interface, plus a set of monitors to listen back to what you produce. That's it, right? Well, almost. There are always ways you can improve your music setup and we don't just mean by adding expensive gear (although that is, of course, an option). There are great ways to improve your production environment

that don't cost a fortune – they're a little more unusual, but, once you delve in, you'll find them as essential to your studio as your DAW, microphone and speakers...

01 Read books and magazines

Okay, so no surprises that this magazine is going to tell you to go and read – and as you're here, we'll guess you know that already. But we're not just talking about an (essential) pile of *MusicTech* magazines, as there are some great studio books to conjure up some inspiration to go with your music making. Our favourite two of the

moment are Sylvia Massy's *Recording Unhinged*, which is a thorough exploration of some of the more unusual practices in recording as well as a look at more traditional rules and whether you should break them. Howard Massey's *Great British Recording Studios* is, well, just that – a look back at the glory years of British recording studios. It's a sad read, as many of them are now closed, but it covers them in exhaustive detail, down to the gear used and the precise room dimensions. An essential book, which may have you looking at your room setup in a different way...



02 Use your phone

You have a phone or iPad and you also have a studio. You know that you can make music with either, but how do you best join them together? You could get an expensive docking interface or external iOS keyboard, but there are now better ways to make these worlds collide. We've recently looked at a new breed of hardware and software that helps make your mobile and desktop music-making worlds work better together and you needn't spend a fortune on it. Music IO (£7.99 www.musicioapp.com)

03 Consider unusual software

Software is cheap, and you probably have an impressive stack of plug-ins on your hard drive – too many, perhaps – so you haven't considered getting any more. Well, think again... but not in terms of sound creation. Instead, consider some of the more unusual titles that could transform the way you work. Audified's MixChecker (\$149, shop.audified.com) allows you to virtually test your mix on different speaker setups – an essential step in getting them sounding good everywhere they might be

much dust in your gear can cause problems down the line, so use a hand-held vacuum to remove as much of the stuff as possible. Not surprisingly we've not tested any, but we're told that Black & Decker make a pretty good one, that's £40 from Amazon...

05 Dim down

You might think good lighting is low down the list of music-making priorities, but once you have it, you'll wonder why you didn't get it sooner. Harsh white light in a studio environment is never a good thing, which is probably why most pro studios are dimly lit. Dim lighting makes for a more relaxing environment: get yourself some cool lighting and you could even find it inspiring, as it adds another futuristic element to your already modern studio surround. We bought *Star Wars* ones to rest on our speakers (\$40, gobeyondbasics.com). Over the top, yes, but you get the drift...

06 Get a fridge

You're in the middle of the most creative session ever, so you don't want to interrupt it, right? The last thing you need to worry about is getting food or drink, so get a fridge and keep it in your studio. Mini ones, like the one shown here, cost just £75 from Amazon. Believe us, you'll thank us for this one, one day. **MT**

There has to be a better way to marry **desktop** and **mobile** music production. Yes, **there is...**

slots in as a plug-in and allows you to play your iOS device like an instrument directly into a DAW channel, or take audio from your DAW and process it through your iPad effect app. An interface like Korg's plugKey (£85, www.korg.com) is an essential hardware gadget that simply lets you trigger your iOS device with MIDI, like an instrument, but also handles the audio – so your iPhone suddenly turns into a synth you can use properly in your setup.

played. Then there's *bx_refinement* from Brainworx (£199, www.plugin-alliance.com) or iZotope's *Neutron* (£185, www.timespace.com) that simply make your mixes sound better. Unusual – but once used, essential.

04 Become a cleaner

Studio gear attracts more dust than any other item in your home, maybe because it's not always in use, or because a lot of it is black, so those grey particles stand out. Too

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Your DVD

//FREE SAMPLES

LOOPS & HITS//ROYALTY FREE



//101 CLAP AND SNARE LOOPS

Size 102MB Format 24-bit/44.1kHz WAV
 Claps and snares are a fundamental part of any track, but they needn't be boring! Sound designer Richard James has concocted a useful pack of 101 clap and snare loops with an array of processing including reverbs, tape saturation, compression, delay and more. Although the main hits are on the 2 and 4, there's additional interest in the form of pumping reverb, delayed ghost notes and other FX. All loops are two bars long and at 125 BPM, but feel free to chop and rearrange for your given tempo.

//ELECTRONIC POP CONSTRUCTION KITS

Size 1.04GB Format 24-bit/44.1 WAV, MIDI
 This month's pack from Equinox Sounds includes five chart-ready, EDM-inspired pop-construction kits featuring an electric atmosphere of pure and ultra-modern pop elements. You'll find layered lead melodies, fast synth plucks, sizzling pads, grooving synth basses, solid 4/4 beats and more. Each kit is presented with a full mix and its component parts in WAV and MIDI formats for maximum flexibility, and tempos range from 87 to 126 BPM.
Web www.equinoxsounds.com

//SUPER AUDIO BOY

Size 69MB Format Requires full version of Kontakt 5.5.2 or higher
 Get the 8-bit sounds of the legendary handheld console in your DAW and create authentic or modern Chiptune tracks with this free instrument from Impact Soundworks. Super Audio Boy uses the same four-layer synth, arp, FX and mod engine from the full version of Super Audio Cart, and features meticulously sampled waveforms and PCM drum samples, over 50 authentic and modern presets, five FX racks with eight modules each, a poly arpeggiator, gate and sequencer, and a 64-slot modulation matrix. Use the code MT17SAC for \$20 off Super Audio Cart.
Web www.impactsoundworks.com



//VIDEO TUTORIALS

VIDEO FEATURE//30 MINS //COMPLETE GUIDE TO MASCHINE JAM

Size 188MB Format MP4
 NI's Maschine Jam adds a tactile, performance-based interface to the Maschine line-up. This new tutorial from Producertech explores its delights. Written and presented by Rob Jones, we've got several chapters from the course which offer an overview of Jam, explain how to play arpeggiated basslines in Pad Mode, show how to use the hardware to control Ableton Live, and look at the new features introduced in the 2.6.5 update, including the new Ideas Mode. We've also included a trailer of the full course. **Web** www.producertech.com

VIDEO FEATURE//ONE HOUR+ //ARP 2600 SOUND DESIGN, OEKSOUND SOOTHE

Size 260MB Format MP4
 It's time to get your synth-sound-design hats on, as we have two videos from Point Blank Music School that delve into Arturia's Modular ARP 2600 instrument. The first sees course developer and expert instructor Dan Herbert giving an overview of the instrument, and the second includes essential sound-design tips and techniques. We also have a video with JC Concato taking a look at Soothe, the unique new dynamics processor by Oeksound.
Web www.pointblanklondon.com

//SOFTWARE

DEMO//SOFTWARE IZOTOPE RX6 ADVANCED (PC, MAC)

iZotope's award-winning audio-repair software is back, with new features and modules including De-rustle, De-wind, De-bleed, Mouth De-click, Dialogue Isolate and a new mode for editing multiple files. **www.izotope.com**

DEMO//SOFTWARE SINEVIBES EMISSION (MAC OS X)

A processor for creating out-of-this-world space effects. Based on a smooth reverb engine with a feedback delay network, signals are processed by either a Bode frequency shifter or a granular pitch shifter. **www.sinevib.es**

DEMO//SOFTWARE ACCSONE CRUSHER-X (WINDOWS, MAC OS X)

A granular synthesiser and effect plug-in that allows deep control of grains and layered grain streams in real time. Features include physical modelling faders and X/Y controller, up to 199 grain streams, 3D grain visualisation and more. **www.accsone.com**

FULL//SOFTWARE BEATSKILLZ MAX1 (WINDOWS, MAC OS X)

A transparent, automatic compressor with intelligent and variable release time and ratio settings. Accurate metering allows you to control your peaks with ease and effortlessly increase the

energy and levels of your track or mix. **www.beatskillz.com**

FULL//SOFTWARE ROYALE AUDIO ROYALE FILTER (MAC OS X)

A high-quality filter plug-in with low CPU usage, featuring vintage modelled filters and a simple and elegant LFO wave editor for creating tempo-synced sidechain patterns with either odd or even time signatures. **www.royale.audio**

VIDEO FEATURE//37 MINS //DUBSTEP KICKS, VOCAL DOUBLING, FM IN LIVE'S SAMPLER

Size 1.01GB Format MP4
 Loop+ has provided a summer hamper of plug-in know-how videos and tutorials. The in-house team at Plugin Boutique take a look at ways to quickly create dubstep kicks in Big Kick (Version 1.7) and explore the classic vocal-doubling techniques used in hip-hop with Stereo Savage. There are also videos with Joshua Casper putting Heavyocity's NOVO Modern Strings and Wavesfactory's Trackspacer through their paces. Finally, there's a look at using Frequency Modulation in Ableton Live's Sampler to add cool harmonic layers to your samples.
Web www.loopmasters.com/loopplus



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