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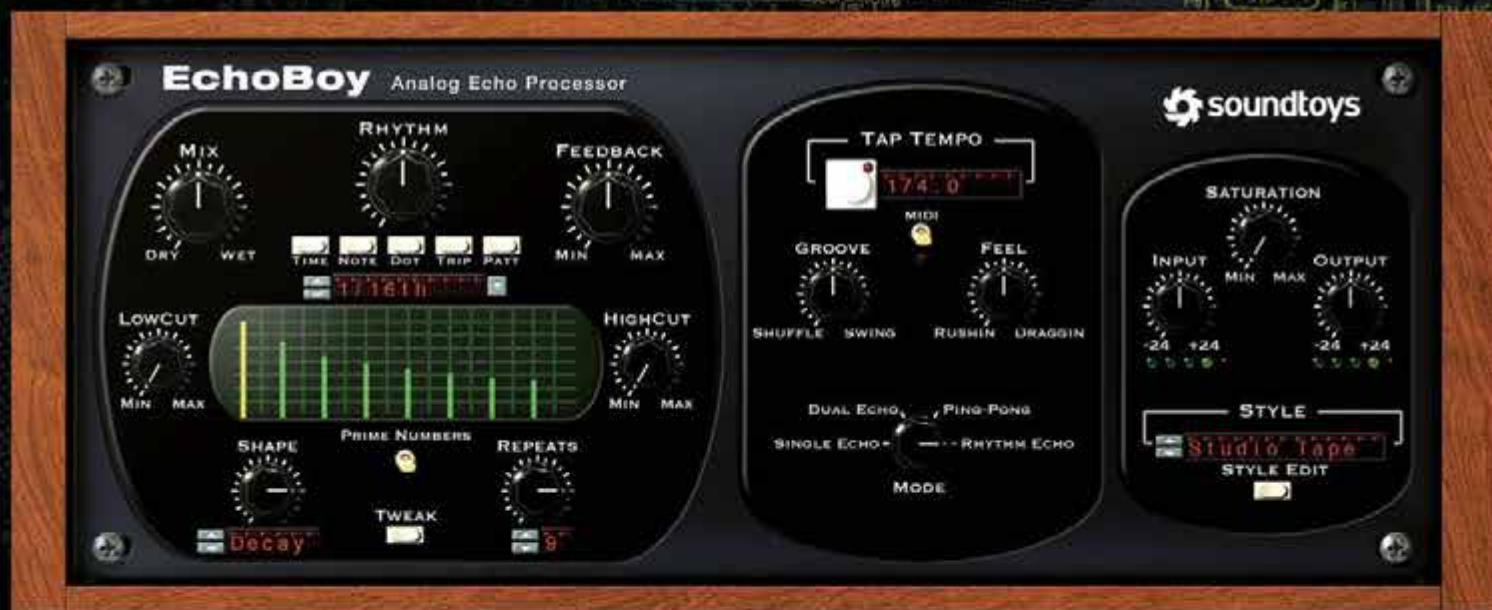
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COMPUTER music

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See page 87 to find out how to download this issue's exclusive content

welcome

Computer music-making has always offered a much cheaper alternative to buying a load of music production hardware or hiring Abbey Road for the day. Always. Even back in its infancy where you bought boxed copies of software for £399. Prices have tumbled since then and it's an even cheaper alternative to filling a studio full of hardware. *But* with prices of everything else going up around it, your music production is under threat! Unless you're making a mint from music making, you're probably thinking more about feeding and heating your

“Making music shouldn't cost a kilowatt hour”

family, so we're here to help. This month we show you how, with just a few additional tweaks of your system, you can write, mix and master music better without

breaking the bank. We've got roundups of the best value items to add to your setup, whatever music you make. There are also tutorials on using your existing software or freeware you can download (and the **cm** Suite of course), plus advice on buying and selling gear. As if that lot isn't cheap enough, there's some bonus 'freebabe' in the form of a massive audio interface roundup (each one costing less than £200) and, of course, our free plugin, an excellent reverb from Audified. Tweaking just a few things in your workflow or desktop studio can and will make a big difference, and can genuinely 'power up' whatever music you make, but shouldn't cost a meal or a kilowatt hour. Next month, powering up your studio with solar.



Andy Jones Editor
andy.jones@futurenet.com

cm/contents

Cover feature



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Best budget recording

74 TOP AUDIO INTERFACES ROUNDUP

We gather the best audio interfaces on the market, each under £200, to find out which is best for your production needs



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cm/downloads

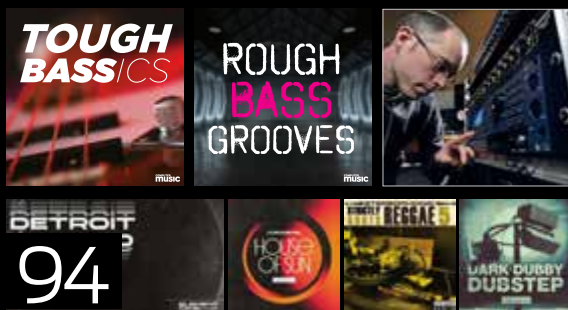
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cm / free plugin

FREE AUDIFIED IRONVERB CM

Audified have created this special (slightly) cut-down version of one of their best reverbs. Here's how to get it and use it!



cm / free samples

ROUGH BASS

A couple of cracking new bass sample sets for you, plus some classic twisted sounds and Loopmasters demo samples



cm / free videos

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How to use your free Audified plugin on film, plus our Laser Harp and Drummer masterclasses both on film



cm / plugin suite

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More than 80 plugins for free. All you need to get started in music production! Learn more about the suite in this all-new PDF

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cm/news

NEW RELEASES > COMMENT > INDUSTRY HAPPENINGS

We know what you did last summer...

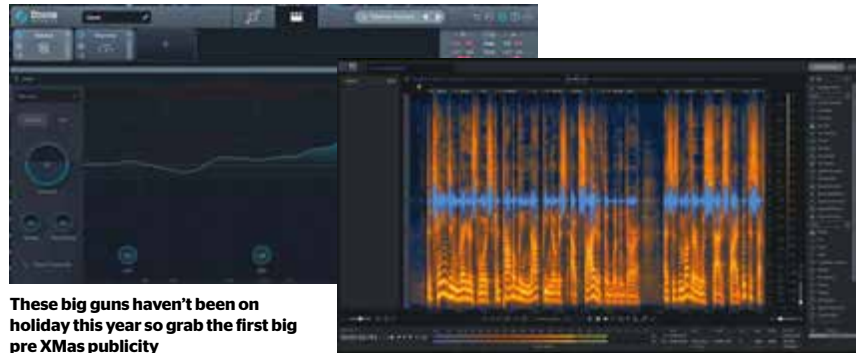
... and iZotope, Avid and Presonus staff didn't get summer holidays after all

> It's just coming up to the end of the slow season as we write this, so we were looking forward to another depleted news section. Then, in what can only be described as 'trying to get in there first to get maximum publicity' three of our industry big guns announced big news! (Well, to be honest, these are just mostly regular updates to long-standing software, but after the news summer we've had, this is big news, okay?)

First up, iZotope have announced RX 10 and Ozone 10 with extra AI. They were pretty intelligent before to be fair, with RX 10 handling all your audio restoration and Ozone most of your mastering while you could just sit there watching *Tipping Point* (and who wouldn't, given half the chance).

The latest RX adds an enhanced Repair Assistant (clue is in the name), and upgrades to De-Hum and Spectral Recovery, the latter of which is especially directed at bolstering audio captured on phones. Ozone 10, meanwhile, adds the Stabilizer module which is an intelligent and adaptive mastering EQ; Impact module adds punch and space; and there's an improved Mastering Assist for easier song A-B-ing. Prices are RX 10 Advanced (\$1199), Standard (\$399) and Elements (\$129); Ozone 10 Advanced (\$499) and Standard (\$249).

Next up Presonus have added the big version 6 to their well regarded Studio One DAW. Studio One 6 boasts all manner of upgrades, tweaks and additions - some 50 major enhancements in total. The main



These big guns haven't been on holiday this year so grab the first big pre XMas publicity

theme of the update is customisation, and this stands out in the all-new Smart Templates that feature a custom UI. This also extends to the overall UI, with the Customization Editor letting users edit everything they wish to see (or hide) on screen. Presonus have also added lyric support so you can add words to your

compositions, from initial scratchpad ideas to performing songs. A new video track has been included thanks to user demand, and new plugins include Vocoder, De-Esser and ProEQ. Studio One 6 will be available as Artist and Pro versions (starting at \$99.95) and as part of the Sphere subscription (\$14.95/month).

Finally Avid don't often give big point update news on Pro Tools as it is continuously being updated, but they have just announced a new **free** version of the pro DAW which looks and feels just like the 'real thing', and features eight MIDI, audio and software instrument tracks. Other details are sketchy as we go to press but this is significant news so we'll have more on it, plus a hands-on guide, next month.

www.izotope.com, www.avid.com, www.presonus.com



Cher look away now. You won't 'believe' what this does

Synchro Arts unveil RePitch for natural tuning

If you want that robotic vocal tuning effect, you know where to go by now: any vocal tuning plugin out there! Synchro Arts' RePitch is focussing more on the *non-robot* side of things, aiming, as it does, at "totally natural sounding results". Synchro Arts' pro user base has been asking for more transparent processing, so that's the point here. A speedy workflow and seamless DAW integration are its other goals and from what we've seen it does these, with notes, waveform and sibilant sounds shown clearly and all types of editing functions. Price is \$249 and it's out now. Review soon.

www.synchroarts.com



IK enter the big league with new speaker range

IK Multimedia took us completely by surprise with their iLoud Micro speakers a few NAMMs back. Not only were they the company's first attempt at 'proper' studio monitors, they were also a) tiny and b) actually very good indeed. Since then IK have added the larger (and equally good) MTM to the range but have now announced three more sets of monitors that make up the all-new iLoud Precision series.

The smallest is the **iLoud Precision 5**, that has a 5" woofer and 1.5" tweeter and delivers 135W RMS power. The middle **iLoud**

Precision 6 set has a 6.5" woofer and the same tweeter which combine for an extended 150W RMS output. Finally the biggest **iLoud Precision MTM** set features two 5" woofers and a tweeter in each speaker and delivers 175W RMS.

The speakers share a lot of extra features including broad frequency responses and little toleration which should mean a flat and accurate response - ideal for mixing.

Then there's the built-in acoustic calibration featuring the ARC System and all new X-Monitor technology. With ARC, connecting an external mic allows the speakers to self calibrate frequency responses per room. So if you are using an untreated space, the speakers adjust themselves to give an accurate response. Interestingly X-Monitor also allows the speakers to emulate other famous brands.

These aren't cheap, costing from €899.99. Each. But then what isn't these days? Review soon.

www.ikmultimedia.com

WA Production let their new Halo slip

WA Production are another company - see Baby Audio below - that seem to be delivering a raft of interesting and often great plugins of late, not only developed by them but lots of partner brands. And their latest instrument continues the trend...

Halo, developed by DHPlugins, is described as 'a new breed of instrument' - we'll be the judges of that - and is a synth, sampler and ROMpler all in one. What this seems in practice is more of a sample-based synth with added extras like effects and modulation. To be fair these look pretty extensive, breaking down those already broken definitions of what makes a synth or ROMpler these days. To muddy those definitions further, this is one ROMpler that



allows you to add your own audio, so it's a sampler too!

Halo comes with 300 sample banks and 360 (pretty varied from what we heard) presets, with expansion packs on the way. As ever with WA Production, the price is fluid, stated as \$120 but \$49 as we write this.

www.waproduct.com

Baby Audio make another trip to New York

It's hard to believe that **Baby Audio** are only just celebrating their third birthday, so ubiquitous have they become in the world of



music software. To celebrate this milestone, the company are releasing an update to their amazing compressor I Heart NY, a plugin that delivered the New York or parallel style of that processing.

The new **IHNY2** plugin still delivers the same parallel punch, a process that delivers more clout as you get to ladle on more compression while retaining much of the original track dynamic. But the updated version adds a number of features including the Tweak Panel, which adds controls for Attack/Release, Ratio and Punch. More interesting extras include a Harmonics control, which adds saturation to the more heavily compressed parts; Shape adds an EQ smile; and Tilt makes the compressor work more on either your lows or highs.

News of an update will be welcome to those who grabbed v1 - which we gave away with issue 303 - as any original I Heart NY owners only have to pay \$25. The rest pay \$69, not exactly extortionate.

<https://babyaud.io>

App watch



We report on the latest developments in phone and tablet music making



Nambu

Definitely "not designed to recreate the sound and workflow of a vintage FM

synthesizer" - not looking at you, then, **Yamaha DX7** - **iceGear's Nambu** is instead a **6-oscillator semi-modular instrument that promises to incorporate "modern ideas"**. It also includes **11 LFOs, 11 envelopes, two step sequencers and chorus/tremolo, delay and reverb effects. Choose from six operator types, too: FM, noise plus AM, analogue-style oscillator plus AM, texture plus AM, filter and resonator. Other niceties include AUv3, Audiobus and Ableton Link support, and you can share your own creations with other users and vice versa. £13/\$15.**

www.icegear.net



VAPoly

Having previously given us **VAMono**, a monosynth, Japanese developer **Ryo Togawa** has now

introduced **VAPoly**. This is - you guessed it - a polysynth, specifically an **8-voice instrument that features two oscillators, two ADSR envelopes, a high-pass filter, a low-pass filter and an amplifier per voice. Modulation features are onboard too, plus effects. The sequencer lets you program a 16-bar pattern per clip, and you can have a total of 16 clips. As well as working on iPhone and iPad, VAPoly also runs on the Mac, both standalone and as an AUv3 plugin (for desktop use on GarageBand and Logic Pro). Intro price £13/\$15.**

www.rtmusicsoftware.com



GSI

Finally, a quartet of apps from **Guido Scognamiglio** (AKA **GSI**) who has been busy porting

some of his desktop releases. These include the **Krill synth (£9/£10)**, which is designed for "quick and dirty" sounds; the sample-based **GenuineSounds Vol I Piano Edition (£30/\$35)**; **Echo B2 (£12/\$14)**, which emulates the **Binson Echorec**, a classic Italian tape machine; and **VariSpeed (£9/£10)**, a reboot of the **WEM Copicat IC-400 Belt Drive VariSpeed** tape delay. Both of the effects require an AUv3 host, but the instruments will run standalone.

www.genuinesoundware.com



Melda in Dream(Machines) land

DreamMachines is a new instrument from **Melda** that runs in their free version of **MSoundFactoryPlayer**. It's a drum plugin that features 500 drum samples from both drum machines and analogue synths, and allows you to manipulate them with "convenient mixing, layering and virtual analogue processing". It has six drum voices with controls for pitch, decay and filter, and there are plenty of additional effects. **DreamMachines** costs £60 or is free with the full version of **MSoundFactory** (£262 or £131 until 15/10).

<https://meldaproduction.com>



Apogee go Boom

Apogee are well known for their high quality (and high priced) interfaces and are now tempting entry-level musicians, podcasters and (here goes) 'content creators' with their new interface, subtly called **Boom**. It's a 2-in, 2-out USB-C audio interface for macOS, iOS and Windows. As well as its rather different purple design, it's the "first audio interface in its class" to offer on-board DSP. You get the Symphony ECS Channel Strip (tuned by legendary mixer, Bob Clearmountain), for tweaking input EQ, compression and drive. **Boom** costs £329. Review soon. Boom!

www.soundtech.co.uk

United are trapping your tunes (or tuning your trap)

United Plugins have announced **TrapTune**, a plugin for perfect trap-style vocals, although they insist it's not *just* for that style. We're talking automatic tuning style vocals here, with that famous robotic effect coming to the fore. However, **TrapTune** also adds other effects like reverb, distortion and delay plus a doubler and harmonies. You are therefore not just limited to (still) the most ubiquitous effects in the pop charts but, UP say, instead have "endless options for making your track sound different from any other". It costs €79.

www.unitedplugins.com



WA's Instachord 2

WA Production have announced the follow up to **InstaChord**, one of the company's most popular downloads. **InstaChord 2** is a MIDI plugin that will run in any DAW and has all new AI-driven chord and pattern-generation features, several new playback modes, a redesigned Pattern Editor and the ability to edit and create custom chords. It certainly seems easy to use in WA's intro video, with single keys used to launch either chord or patterns. And the new Pattern Editor - essentially a mini DAW - looks like the standout new feature. \$69, review soon.

www.waproduction.com



Nektar go wireless

MIDI controller experts **Nektar** have branched out - although not that far away from the main tree, as it were - into the world of wireless MIDI. Their new **Widiflex** and **Widiflex USB** wireless MIDI interfaces add 'high-performance' Bluetooth BLE MIDI to any studio setups. They are essentially sets of two connectors that plug into any MIDI port and allow Bluetooth MIDI communication between the devices. They also use Bluetooth 5 which doubles the standard Bluetooth speed with five times the range. Prices are £42 and £50 respectively.

www.nekartech.com



It's a knob. For bass

Swedish developers **Bogren Digital** have announced a follow-up to their **AmpKnob** RevC guitar amp simulation plugin in the form of **BassKnob STD** (no laughing at the back there please). It is designed so that it "provides rock and metal producers the straightest path possible from musical ideas to an album-ready bass guitar recording". It features a built-in tuner, a couple of channels (clean and dirty), and a single Gain knob. The thinking is that this just does the job fast with no fuss. "No more hours lost to tweaking or option anxiety," they say, and we know what they mean. Price is \$49.99.

www.bogrendigital.com



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www.fabfilter.com



COMPUTER music

10 years back

Our monthly shake-of-the-head at our earlier selves' news choices...

How do you choose an audio interface? That was the question we posed in November 2012 (cm184) as we pondered whether you should go for a USB, ThunderBolt or FireWire model. At the time, we suggested that FireWire "might not be heading towards obsolescence quite as quickly as some have predicted". Apple's final FireWire-equipped Macs came out that same year.

"Without wishing to take credit for his success, we suspect it was all down to us"

Speaking of moribund ports, IK Multimedia's new iRig Keys MIDI controller was designed to connect to the 30-pin dock connector on your iOS device (remember that?), while our guide to music theory was about the joy of rests in notation. Sometimes, playing nothing is better than playing anything.

Finally, we spoke to movie composer Lorne Balfe, who's gone on to work on little-known films such as *Black Widow*, *Top Gun: Maverick* and the *Mission Impossible* series. He told us that he actually read CM to "learn about techie stuff", so without wishing to take the credit for his success, we suspect it was all down to us. You're welcome, Lorne.



cm184: a new dawn broke for music - and mankind in many ways - with our top-notch tutorial selection

SampleScience reclaim their old slot. Right here

Regular readers will know that this is the slot in *Computer Music* where we most often cover freeware releases, and **SampleScience** are the most frequent contributors. After a couple of months off, they return with **Sitar Renaissance**, a free sitar which was created from a damaged recording of the instrument.



"A combination of audio engineering techniques has been used: spectral repair, adaptive noise removal, and manual retuning". It's available as a Mac and PC VST/VST3/AU plugin or Kontakt instrument.

samplescience.info

Ins & outs

INDUSTRY (HIGH) STANDARD

We're loving HBO/the BBC's *Industry* right now, not least for its banging synth soundtrack, created by Nathan Micay. Of his season 2 work, Micay told *The Daily Beast*: "There's a lot of faster synth arpeggios, if that's possible, and more bold sound choices."

NI CALLS TIME ON ABSYNTH

Native Instruments will no longer be developing or selling Absynth, one of the greatest soft synths of the past 20 years. Original creator Brian Clevinger said he was "disappointed", but NI said that it was "not able to provide the attention it needs".

THE GAME'S NOT UP FOR VINYL

It's no secret that vinyl has enjoyed a renaissance over the past few years, but we were still surprised to learn that it's now overtaken physical PlayStation games to become the second best-selling physical format in the UK, closely behind Nintendo Switch cartridges.

DEAD AGAINST MIDI

deadmau5 has some strong feelings about the "antiquated 60-year-old protocol" that is MIDI. "Where is this MIDI 2.0 that has warranted a whole coalition or group of experts just talking about the spec for years and years?" he asked *MusicRadar*.



DOJA CAP DOFF

Beyonce and Drake have already put their own spins on 90s house this year, and now Doja Cat has suggested that her next album will be inspired by 90s rave. We're fully onboard, obviously, and hoping for thumping breakbeats, big bass and sampled vocals.

FUNK WAV BOUNCEBACK

Calvin Harris took aim at a Twitter user who wondered how 'DJs' like him make any money when "all [his] songs are other artists". "Because I write, produce, mix, play every instrument and sometimes vocal," he said, which about covers it...

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> cover feature / power up your music



POWER UP YOUR MUSIC [FOR LESS]



Even with budget-conscious intentions, setting up the best studio for your needs can quickly devour your cash. So this issue, we'll give you a carefully considered roadmap to lay the foundations of a studio ready for all manner of genre-oriented demands...

> **Unless you're extraordinarily wealthy, you've likely started to feel the sting of global inflation over the last few months. For many, splashing out on your music production hobby will feel like an extravagance at a time of extreme belt-tightening. But, if you're just starting out on your journey into music-making, or if you're itching to go deeper and better with your music, then sitting on your hands over the next few months will be a challenge.**

That's why we've elected to do the hard work for you, assembling an array of studio setups

that we've carefully tailored towards certain genres and tasks. All for comfortably under a £500 maximum budget.

These finely honed setups will help you assemble pulse-pounding EDM, behemoth rock or bass-heavy hip-hop or carry out near pro-level mixing and mastering. It's breathtaking how much can be achieved at a low cost.

Just one disclaimer however: we're going to make the assumption that you already have a PC or Mac at your disposal at the very least. While you don't necessarily need a state-of-the-art, multi-cored beast, having a decent

computer which can handle the frequent tolls that music production can extort is vital. You'll want to make sure you have sufficient hard drive space to store the music production wares you plump for, too. If not, you might want to get hold of a separate external hard drive.

Also central to all studios is a DAW, which we'll consider as the cornerstone of our specifically curated studio setups and come back to later. Another point to make before we go deep, is just *where* you establish your studio, and how to maximise your music-making space on a budget, so that's where we'll start...

MONEY-SAVING STUDIO

The first thing to consider when powering up your sound, is your studio. Does it fit your music, is it a creative space... If your studio needs changing or upgrading, we have some great value solutions

> **Over the next few pages we're going to reveal some of the best budget setups for all genres and show you how to get the best out of them.**

There are some great hands-on guides to excellent free or low cost software, starting on p34, too. First though, you'll have to figure out

just where you situate your studio, and the bigger picture sonic treatment choices you'll need to think about to make that space work.

For example, if you'll be recording live vocals, or live instrumentation, you're going to need more room space to play with than if you just intend to do everything in the box.

Acoustic treatment is one concern that many first-time producers avoid delving too far into, particularly if their focus is predominantly software-based production. But mixing anything using a pair of monitors in an untreated space can cloud your ears with misleading acoustic perceptions of how your track sounds.

Resolving this requires the implementation of one or more acoustic panels, and the most important (arguably) thing to consider is a decent bass trap. Not just an absorber of overly beefy low-end, bass traps can also be a good sponge for soaking up erratic mid and high frequencies. Starting at £48.50, Gik Acoustics' varying sizes of low-cost bass traps are a good place to start browsing, as are the fantastic options from the likes of Vicoustic, eFoam and Advanced Acoustics.

Beyond bass traps, some solid acoustic wall panels, usually constructed from foam and fabric, are critical tools for preventing room reflections muddying up the sound. There are some tasty budget options that can be picked up for as little as £4.99 per panel from AcuFoam, Acoustic Gear and the slightly pricier Sonitus.

But if you're really wanting to keep costs down... why not try your hand at making some yourself! There are plenty of guides online to help you to assemble the right sort of foam to house within a wooden frame. Assembling the raw materials might be a bit costly initially, but

"Make these essential purchases now to save time fixing shoddy-sounding recordings later"

once you've put one together, it'll be much cheaper to DIY your own panels in the long run.

Extra kit

Unless you want to incorporate your room tone, guitar, bass and synths can be directly injected through your interface, recorded and processed within your DAW. For vocal recording however, the room sound certainly plays a part. To get the best quality takes, you'll need extra apparatus. Firstly, to prevent irritating plosives (and protect your microphones from showers of spittle) a pop shield, such as everyday workhorse sE Electronics Pop Shield (£25) or the more substantial Nady MPF-6 (£40) is indispensable.

Secondly, you'll need the appropriate extra gear with which to house your microphone - namely a stand, a mic cradle and, if you've got any leftover cash, a portable isolation booth, such as Studiospares IsoCube mic isolator (£20) or Nordell Audio's Foldable Reflection Filter (£49). Make these essential purchases now to save time fixing shoddy-sounding vocals recordings later.

Once you're able to listen back to your



Gik Acoustics' varying sizes of low-cost bass traps are a sleek solution

music free from room reflections, and record your vocals (and real instruments) as smoothly as possible, you can start thinking about how to tailor your studio toward your chosen sphere of music production...



Pop shields like this one by Nady MPF-6 make a hell of a difference



Soundproofing panels: often not much to look at but very useful

How to sell old gear

If you're anything like us, you'll likely have a few boxes, or dusty old keyboards kicking around your house that you know could be put to better use elsewhere. Getting shot of your old gear is not only an oft-forgotten way of building up your cash, but also helps psychologically with your perception of your studio as a streamlined workspace.

Beyond the usual re-selling portals like eBay, Facebook and Gumtree, music production-aligned websites like Sound Gas and Reverb.com are more organised, have lower selling fees and attract a more discerning audience of potential buyers. While the latter foregrounds guitar and the whole spectrum of musical instruments, the former is a hub of unusual and vintage recording gear, with synths, reverbs, compressors and other studio effects featured most prominently.

Even if your old tech is broken (or on the way out), there'll undoubtedly be some keen fixer out there who'll be interested in taking it off your hands. Though it is, of course, sometimes nice to have a plethora of gear at your disposal, if you've not used that gear in five or more years, then you need to really ask: just what situation are you holding on to it for? The money you do make can be used to increase your sleek studio budget.



Power up your electronic music for less than £500!

Building your studio to cater for the dancefloor – or headphone-based connoisseur – is easy

In recent years, the term electronic actually encompasses all manner of genres, approaches and subcultures. Starting a studio (or switching up your existing one) with this type of music in mind is perhaps the most plainly cost-effective way to get started. After all, we're predominantly working within the realms of synthesis, drum machines, samples and processed vocals – all of which can be easily realised in the box. We're keeping things under £500 here, and with that budget in mind, we've carefully chosen where you should be spending money, and what you can afford to lose.

With any genre, you'll need a solid foundation for working, and for electronic musicians there's no finer DAW than Ableton Live – the Intro iteration of which can be picked up for £69. With 16 audio tracks and 16 scenes to play with, it's the most stable bedrock on which to build your EDM-floorfiller, with a super powerful sampling instrument built-in. A set of studio monitors we can hand-on-heart recommend doesn't really come cheap, but we've determined the best solid budget-minded pair from M-Audio that will more than step up to the job.

At the core of most EDM comes synthesis, from dirty, pounding bass to wiry leads. Affordable, multi-faceted solutions abound from Arturia's complex quad-engine Pigments (£83), to BLEASS's virtual FM synth Omega (£57), but we'd implore you to fork out just a little more here and pick up Native Instruments' beloved Massive synth (£129). Regarded as 'the synth that defined bass music', it's well worth the purchase even if it is on the pricier side, and will grant you access to boundless sonic avenues.

It's not all about sampling and synthesis, you're going to need some suitable compression to fatten up your tracks, and some entrancing delay. We've got you covered on that front, with a fine option from the mighty Waves. Lastly, it'd be remiss of us not to throw in an item from our free CM plugin suite. In this case, we've elected to include Thenatan Trax CM, our free version of a superb sample-based drum machine, loaded with 20 solid preset kits.



THE MONITORS

M-Audio BX5-D3 £159

Monitors don't come cheap, but it's a truism that precision and clarity is vital when you're listening to EDM. M-Audio's BX5-D3's are studio grade monitors which give a superb, flat-frequency response, with an optimised waveguide and powerful low-end drivers. They can be calibrated to suit any number of rooms. A solid set.



THE DAW

Ableton Live Intro £69

The EDM DAW bar none, Ableton Live has been a cornerstone for electronic musicians since its inception back in 2001. Providing both Live's vaunted Arrangement view and Session views, albeit with some restrictions, Live Lite is the best way to learn about the ever-evolving Ableton universe.



THE SYNTH

Native Instruments Massive £129

NI's virtual analogue beast has provided a veritable ocean of wonder for electronic explorers for years. Containing more than 1300 sounds, its unique wave scanning algorithm within its three oscillators lay at the heart of what makes Massive's leads and basses so beloved.

THE DELAY

Waves H-Delay £25

Waves' slick delay multi-tool is capable of yielding expansive, emotive delay effects, short, sharp rhythmic ping-pong, slap-back echo and LFO-controlled pitch modulation. Using H-Delay to give character to synths, basses or cutting leads might just be the missing element that transforms your EDM track from fodder to floor-filler.



THE COMPRESSOR

Cytomic The Glue £87

Another item that's had plaudits heaped upon it since its release over a decade ago, Cytomic's The Glue is based on the classic SSL E-series bus compressor, and is hugely effective on both bussed channels and individual tracks. Its Range knob allows you to control the amount of compression without affecting the threshold. It's a top tool for adding that extra clout.



THE FREWARE

Thenatan Trax CM CM Plugin

One of our favourite free tools, and it would certainly be beneficial when assembling sampled drum and percussion sounds. Trax CM contains 20 preset kits, with kicks, snares, cymbals, claps and FX sounds contained therein. There's a whole smorgasbord of effects in here too, including some deliciously grisly distortion.



TOTAL COST = £464

Get a set-up for making soundtracks and earn from your music

Fancy yourself as the next Hans Zimmer? If you're set on a career as a soundtrack creator then you've come to the right place...

One of the most stable pathways to monetising your music right now and get your music heard on screen is by signing up your tracks to one of the many sync libraries that welcome incoming pitches. Their role is to act as middlemen between you and those looking for music to suit their film, television, video game or advertising projects. Making so-called 'production music' is a real skill in itself, as you often have to strike a balance between your own artistic individuality and making the sort of 'sync-able' music that has the broadest possible appeal.

While this sector has very much exploded over the course of the last decade, working with film and television in mind is, of course, one of the most well-trodden pathways for professional musicians. Soundtracking is an expansive, varied art form, yet there are a number of tools, approaches and mindsets that are fundamental. For one, you're going to need a DAW that has solid video support if you're going to be writing specifically for a picture (or need to edit your soundtrack cut later). While there are now more than a few DAWs that have this functionality, we're going to recommend one which is used by many of the world's greatest composers. Cubase Elements 12 contains everything you'll need for slick video-synced writing, and it's a relative steal at just £85.

Having an assortment of sampled real instruments is certainly useful, and our friends at Spitfire Audio have recently been making specially curated selections from their larger libraries available, at astonishingly cheap prices. For just £25 a pop, we'd definitely recommend you dip your orchestral toe in the water with one or two...

It helps to have a broad array of synth sounds at your disposal too, not to mention ways of making your sounds evolve in odd and interesting ways. As with our previous entry, we've also thrown in a recommended extra from our CM Plugin Suite, that should help you add a bit of cinematic width to your track.



THE DAW

Cubase Elements 12 £85

The DAW that started it all has been a go-to for soundtracking duties for several world-class composers. Its slick video incorporation allows for speedy writing to picture. This basic way into the latest version allows 48 audio tracks and 64 MIDI tracks, as well as a range of goodies such as the Groove Agent SE rhythm module.



THE SYNTH

U-He Hive 2 £120

This dual-oscillator synth offers up a huge well of sound design potential, with two sub-oscillators, a massive array of waveform shapes, ARP and sequencer controls and a whopping 2,300 presets to get you going. This is a deep, rich synthesiser that could certainly serve as the flagship of your sound design exploits.



THE MONITORS

PreSonus Eris 3.5 £84

Don't be deceived by these diminutive desktop-sized speakers, PreSonus' media monitors have been built with acute precision and detailed listening in mind. The Kevlar driver adds weight to the low end, while their low distortion-build is on par with many bigger studio monitors. For such affordable speakers, the soundstage is impressively wide, too.

THE FREEWARE

Baby Audio Baby Comeback CM £FREE

Our CM plugin suite recommendation is the unique delay plugin we developed in collaboration with Baby Audio, this stripped-back version of BA's Comeback Kid provides some extraordinarily simple to make, but staggeringly deep delays - a crucial ingredient in effective sound design. It can bring more character and a richer colour to your mix.



THE ORCHESTRA

Spitfire Originals Cinematic Pads £29

Makers of some of the best orchestral libraries and soundtrack toolkits around, Spitfire Audio's recently launched 'Originals' series collect beautifully angled packs, such as 'Epic Choir' and 'Intimate Grand Piano' that you should certainly swallow up. For our money, a good starting point is Cinematic Pads, a succulent collection of pro quality pads, swells and textures.

THE SOUND MANGLER

iZotope Trash 2 £85

A multiband distortion mega-tool, iZotope's Trash 2 has spent nearly a decade being used to crunch up and restructure our sounds. While you can use its processing to simply dirty up your audio, there are far subtler ways to use its in-built dynamics and frequency controls to get even more creative when soundtracking.



TOTAL COST = £403

Get powerful pop sounds without shelling out

You think you've got what it takes to climb the charts? It's surprising how little you need to build a playlist-friendly banger...

While garnering the respect of other artists, and your own simple artistic satisfaction are reasons enough to make music, you'd be lying to yourself if you didn't admit that achieving commercial success was always lurking somewhere in the back of your mind. While 'pop' as a genre is less consistent than the other styles we've honed in on, there are some general aspects that you're going to need to think about when aiming at the charts. (Remember the charts? Whatever happened to them...)

Firstly you're going to need to study the musicological structure of the best pop songs. Writing an effective pop song is all about the development and dynamics, centring on emphasising your big hook(s), how you use tension and release to build anticipation, as well as crafting an effective core theme on which to base your song. You're going to want an impactful lead vocal at the centre of your mix, and it's increasingly popular these days to pitch-shift, warp or robotise it. You'll want bright instrumentation, strong beats and compression that lets your track stand out among the many thousands of other hopeful hitmakers.

For our powerful pop studio, we've put together some of the tools that we think will stand you in the best stead. Firstly, PreSonus' Studio One 5 Artist is a feature-packed DAW aimed at writing, with unlimited tracks and a whopping suite of virtual instruments.

We've also included some robust, yet affordable mini-monitors, a vocal processing suite par excellence and a means of generating some seriously thumping beats. As before, we've also considered which item from our buffet of free plugins would be most beneficial for the pop producer. Then again, with the assortment of characterful synths, EQ and mixing tools and more within said suite, you'd be wise to nab it all.

Here then, is our power pop studio, with everything you really need to get started on a smash hit.



THE MONITORS

JBL 104-BT £179.99

Pop production is all about making the mix sound good on a wide range of speakers, but as we're working on a tight budget, a bedrock pair that has a superb frequency response are the JBL 104-BTs. Their coaxial 4.5" LF drivers are coupled with an integrated 0.75" tweeter and rear port bass. They pack a not-insubstantial punch.



THE DAW

PreSonus Studio One 5 Artist

£85

For a laudably low price, PreSonus' Studio One 5 Artist is really all you'll ever need as the hub of your writing, mixing and mastering. Offering unlimited tracks, a range of virtual instruments such as the Impact and Presence XT drum machine and sampler respectively, and the rich Mai Tai modelling synth, it's the perfect pop station.



THE BEATS

Sugar Bytes Drum Computer £100

Beefy beats are the order of the day with Sugar Bytes' flexible Drum Computer, from short-sharp pitched kicks to hefty bass-driven oomph, your options are fairly limitless. The eight sound machines, expansive pattern sequencer and wide open sample import options make this an all-round beat boss for any and all needs.



THE VOCAL MACHINE

Native Instruments Glaze £44

We've skirted around recommending a mic here, because for pop, we'd argue it's more important how you *treat* vocals as a mix element. NI's Glaze provides all manner of vocal licks, riffs and runs, as well as chopped vocal runs that you can sonically experiment with. Using Glaze's Sound Editor allows you to manipulate the various sound sources in play.

THE POP SYNTH

Korg Legacy M1 £82

Retro flavours are still in vogue, and nothing says old-school like the sound of the very first workstation synth, released back in 1988. Korg's software M1 is a faithful reproduction of the machine whose sound permeated the latter half of the 80s and early 90s chart. Its cheesy, bright sound might make you smirk at first, but start from the presets and you'll be building out your own nostalgic pop anthems in no time.



THE FREEWARE

eaReckon CM-COMP 87 £FREE

While making your track is all well and good, you'll need to make it stand out from the crowd. The CM Plugin Suite contains more than a few compressors that will do just that. Of particular note is the eaReckon CM-COMP 87, which can be scaled to apply a reactive, analogue flavour.



TOTAL COST = £490.99

Making the most of the cm plugin suite

As you've probably noticed, we're keen to recommend key selections from our Plugin Suite for each genre. Overall, there's over 80 plugins, tools and effects within which can revolutionise your music-making. Recently updated to version 2.0, most plugins are available in both VST and AU formats. Many plugins in there

have actually been tailor-made exclusively for us, with stripped down versions of bigger beasts presented by the likes of D16, Baby Audio, Rob Papen and many more.

You can download the CM Plugin Suite from filesilo.co.uk right now, by answering a simple question to prove your purchase. We've arranged our library alphabetically,

and there's also a useful PDF in there which gives you a top-down map to navigate this treasure trove of treats. There are Hybrid Synths, Virtual Analogue Synths, Drum Machines, Samplers, Creative Plugins, Dynamics and Analysis tools, EQ/Filters, Reverb and Delay, Multi Effects and Distortion. Phew... but that's not all, there's also a

series of plugins to help you when processing audio.

It might seem overwhelming at first, but we'd recommend you organise your CM Plugin Suite by creating a bespoke folder in your DAW's plugin manager, then you can keep things more ordered and easily bring up our tools when you need them for a specific purpose.

Get a big rock sound for less than 500 pounds!

You don't need to have walls of amplifiers and a spacious LA studio to conjure hair-raising rock'n'roll. In fact, it's one of the easiest genres to go large on, for less

It's a preconception held by many that to make decent rock music you need quite a lot of physical space - and the ability to make a lot of noise. In actual fact, you can be churning out the next *Smoke on the Water* every day for very little outlay. As computer musicians, we're more prone to looking for sample libraries, playable software instruments and ways of making our sounds go further than most traditionally rock-oriented folks, and while some might squirm at the thought of keyboard-based riff-writing, it's the end results that speak the loudest.

We're trying to keep costs down in this feature, but that doesn't mean we're embarking on a particularly freeware-heavy approach. But, we've elected to recommend a free DAW for the purposes of making rock, namely Apple's ever-ubiquitous GarageBand. Evolving from its rudimentary beginnings, this Apple-only DAW is for all intents and purposes a lite version of Logic, containing its older sibling's Pedalboard options, and amp sims. It also sports Logic's ever-useful Drummer to lay down instant beats for your project. For PC or Android users, why not try the equally free - and equally superb - Cakewalk by Bandlab.

Though Drummer might be good enough for a demo, for a full-blown rock track we'd recommend you switch up to Goran Grooves Handy Drums Rock Standard. This range of extremely well recorded drum kits was reviewed by us recently, blowing us away both with its sound quality, and its price. While we've chosen a few more guitar-oriented products in our gear-picks, you're also going to need a robust microphone to handle the rigours of howling vocals, as well as all-purpose recording duties. The AT2020 should do just the trick. So, for those about to rock, heed our advice and let this be the nucleus of a studio where the next *Master of Puppets* is captured.



THE DAW

Apple GarageBand £FREE

If you're an Apple-based computer musician and feel GarageBand is beneath you then wise up. GarageBand has evolved over the years from a consumer-grade audio recorder to a high-level music production universe. It has more than enough packed inside to start assembling ready-to-go rock.



THE INTERFACE

Audient Sono £160

Audient's Sono is a guitarist-aimed interface with a three-band tone selection and advanced power amp simulation which harnesses Two Notes' Torpedo processing power. There are XLR inputs round the back too, so you needn't worry about a separate vocal interface. It's perhaps the most solid guitar-interface on the market, especially for the price point.



THE KIT

Goran Grooves Handy Drums Rock Standard £28

Goran Grooves' incredible range of expertly recorded kits comes in all flavours, but the Rock Standard really hits. The simple but capable GUI allows for volume control of each component, as well as routing, mapping and further editing. Once you try one pack, you'll want more. Trust us.



THE AXE

Impact Soundworks Shreddage 3 Legacy £65

Mind you, if you're not all that good with an axe, why not lean on the high quality tone of Shreddage 3? This brutal sounding, drop tuned guitar is pitched at heavy rock and metal-heads, and contains samples, performance loops, chords and riffs. It's like having Slash on tap.



THE MIC

Audio Technica AT2020 £87

A decent budget vocal mic, as well as an all-round studio workhorse, the AT2020 has a high sound pressure level and solid dynamic range which make it a comfortable tool for all kinds of vocal duties. Its cardioid polar pattern helps keep things isolated, too. This even edges out some pricier mics in terms of performance.

THE FREEWARE

Audio Assault Grind Machine CM £FREE

We've got a whole section in our Plugin Suite dedicated to distortion. One option is Grind Machine CM, a nice little amp/cab sim plugin that enables your guitar sound to roar like the proverbial beast. There's also an included Djentbox pedal which aims to wrestle down those rumbling low-tuned-riffs.



TOTAL COST = £340

Bundle 'em up

So, where are the best places to find the most affordable tools? It's always a fiscally sound idea to plump for bundles or collections as opposed to hoovering up individual items over time. While massive bundles such as SoundToys 5, iZotope's Music Production Suite and FabFilter's Total Bundle may be

way out of reach for now, smaller scale assortments, like the ones regularly found on Plugin Boutique are often going for very reasonable prices, and are well worth your cash. A quick peruse on their homepage will likely leave you wanting to snap up a few bits and pieces, with knocked-down prices,

and products are regularly coupled up with others.

The KVR Marketplace is another locale we'd direct you to, with both audio plugins and sonic tools freshly curated and displayed every day. Often they have reduced prices for a set time, so you might have to move quickly if you want to

get hoovering them up. When it comes to the cheapest (and free-est) out there right now, bedroomproducersblog.com contains some astute guidance on hoovering up the best price tag-less swag around, as well as providing their own bespoke BPD plugins and samples.

Create an amazing hip-hop setup for under £500. Yes, really!

You don't need a million dollar studio to tangle with the big boys. Here's our penny-saving guide to becoming a grandmaster

Built on rhythm, rhymes and a considerable amount of swagger, hip-hop productions' tools are some of the most sought after in the world of music production. While in our efforts to minimise your expenditure, we've chosen some cost-effective kit to get you started on your quest to become the next Jay Z, when it comes to the full-fat impact of solid hip-hop, you're really needing space, size and - we're sorry to say - eventually, investment in high end speakers so you can scrutinise every nuance of your mixes, to guarantee that your tracks have maximum impact.

For now, we've chosen some particularly bass-frequency-leaning headphones that we've used for years, and can guarantee their accuracy and their hardiness over many long nights of use. When it comes to the bedrock of your hip-hop production, few DAWs radiate as brightly as Image Line's FL Studio. With the ability to loop and sequence your beats, synths, samples and vocals swiftly, the DAW has been cherished by the A-list of the genre's major players. While we'd normally suggest a budget route, we'd even go as far as to plump for a more complete version.

Getting a decent microphone/interface setup is another biggie; after all, what good is hip-hop without sharp, clear vocals? Our microphone and interface choices reflect these priorities. Beat-making is an art form that is crucial to the genre, and while FL Studio itself contains a salvo of tools that can help in this regard, and Akai's free MPC Beats should certainly be picked up, we're recommending a very fun, very genre-aligned beat machine

As always, we've also taken the liberty of directing you towards one of the CM Plugin Suite's most hip-hop-flavoured tools; a remarkable sampler that'll have you slicing, dicing and stitching quickly, particularly when used in conjunction with FL Studio. So, without further ado, here's our overview of this cost-effective hip-hop hub.



THE HEADPHONES

Audio Technica M50x £115

A pair of cans that has been widely praised for granting both detail and oomph, AT's M50x's sport 45mm dynamic drivers which give a fair indication of the frequency range, and are comfortable enough to wear for long sessions. They can also get pretty loud - useful for listening back and getting in the zone.



THE DAW

FL Studio Producer Edition £159

An absolute powerhouse of a DAW, FL Studio is both an easily navigable music production environment - complete with sequencer, mixer, channel rack and more - as well as a bursting treasure chest of exceptional plugins, such as percussion modeller Drumpad and slick beat detection tool Slicex. Get the Producer Edition for a more solid workstation.

THE BEATS

Dopesonix Beat Machine 2 £30

Building beats with a distinctly hip-hop vibe is the aim of this flexible little drum machine from Dopesonix. Containing 300 kits that span the last 30 years of hip-hop, the sample-and-effect packed plugin provides a complete top-down vantage point to concoct the types of contemporary hip-hop that have dominated across the last few decades. It might just be your secret weapon.



THE FREEWARE

Expert Sleepers XFadeLooper CM FREE

A dazzling piece of freeware that could be another great boon to your hip-hop endeavours, XFadeLooper CM allows you to crossfade between multiple samples and build up your own DIY pads and sonics. You can then play them backwards or crunch them up accordingly. It's a nifty, fun tool that is endlessly creatively inspiring.



THE MIC

MXL V67 £94

Distilling the Neumann U87's best qualities into a mic under £100 is no mean feat, yet that's what MXL do with V67. Internal high frequency attenuation gives the vocal a boost in the lower end, resulting in more all-round vocal thickness. Its green design looks suitably retro too. A top budget mic.



THE INTERFACE

Focusrite Scarlett Solo £88

Of course, you need to get your vocals into your computer, and the most ubiquitous budget interface around right now will certainly do that, and more besides. Focusrite's Scarlett Solo is a simple 2-in-2-out interface, but under the tiny hood, 24-bit/192kHz converters, coupled with the expansive 'Air' mode, will make your vocals stand just that bit further out.

TOTAL COST = £486

Be the best singer/songwriter without breaking the bank

Powering up your singer/songwriter studio will require heavier investment in some areas, but you'll be able to dispense with more advanced kit that other approaches demand

We're stripping back to the very basics here – the fundamental skill of writing a song on either a guitar or piano, recording vocals with your microphone and either choosing to work up your arrangement over time, or keeping things very simple, intimate and direct. With that in mind, having an armada of software synths, complex effects plugins or oddball rhythm generators isn't really on our agenda. Instead we need to think about the best ways to both bottle and enhance your instrument and your voice, while, as always, keeping a very close eye on our budget constraints.

We also need to consider the writing process itself. If you're wanting to eventually settle into being a song-generating machine, you're going to need continual inspiration. The necessary environment in which to do that is your DAW, of course, and in our scoping out of the DAW that is the most songwriter-aligned, Tracktion Waveform Pro 12 comes out on top. Containing a solid singer/songwriter template, a fluid drag and drop approach, a heap of useful utility plugins, the ability to strum your MIDI and some very effective instrument-aligned fare, including its Dual Guitar IR cabinet simulator, the full version of Waveform Pro 12 is worth shelling out for. Better yet, you can even dip your toe in the water with Tracktion Free if you're on the fence. We'd strongly recommend you make either your singer/songwriter workbench.

It goes without saying that a stable interface, trustworthy pair of cans, a robust microphone and a little more consideration to your vocal's sound is more necessary here than other genres, so to further power up our budget studio we've highlighted some particularly apposite options. We've also found an great piece of freeware, available within the CM Plugin Suite that will definitely be a real asset for singer/songwriters looking for the means to build out harmony voices and pitch correct with ease.



THE DAW

Tracktion Waveform Pro 12 £123

Designed to be a super-straightforward, user-friendly DAW, Waveform Pro 12 is the latest version of Tracktion's superb Logic and Live alternative. Designed with creative inspiration in mind, Waveform Pro 12 contains not only a solid environment in which to write, but mountains of loops, plugins, tools and flexibility to fuel your songwriting.



THE VOCAL TREATMENT

Waves CLA Vocals £30

If we're keeping things stark and simple, then your vocal will not only need to be strong, but needs to *sound* the part too. CLA (Chris Lord-Alge) Vocals, is an all-in-one, multi-effect vocal plugin that distils the seasoned rock producer's particular approach to radio-ready vocals into one solid vocal toolkit.



THE HEADPHONES

Sony MDR-7506/1 £83

You've likely seen more than one pair of these in your time. Widely considered an industry standard for their exacting reproduction of completely neutral audio, Sony's monitoring super-cans are now widely available, and affordably priced. They're a cosy fit for long sessions, and they can be easily folded down and carried.

THE INTERFACE

PreSonus AudioBox iOne £69

An ultra flexible, ultra-durable mobile-ready interface, PreSonus' AudioBox iOne is a budget I/O without compare. Complete with award-winning mic preamps, state of the art digital converters and some handy iPad and freeware bundled in, the 2-in/2-out AudioBox iOne will take in latency-free guitar, vocals and more without fuss. A reliable singer/songwriter interface.



THE FREEWARE

zplane Vielklang £FREE

A nice freebie nestled within the CM Plugin Suite, the Vielklang 2 CM harmony generator scans your monophonic audio and the plugin is able to automatically generate multiple harmonies that fit, based on smart key and scale detection. This could make for a useful starting point when building out your arrangement. Check out our mini-tutorial on how to use it.



THE MICROPHONE

Aston Origin £166

Aston Microphones' original cardioid condenser has proven itself to be a truly excellent choice for vocal and instrument capture on a budget. Without colouration, the Origin can nicely capture the dynamics of all it is pointed at, with sufficient headroom to prevent distortion. Aston have some real superb offerings in their roster, but their very first microphone is still a dependable pick.

TOTAL COST = £471

Become a better mixer with the best tools (but for less cash)

As well as producing music of different flavours, training your focus on the mixing process in general will mean you'll want to allocate your budget to some more specialised tools...

It's a process that many artists take for granted, but the mixing process can be as creatively imperative as writing that killer hook, chord structure or beat. Mixing requires both patience and attention to detail. It's where you shape your track from a collection of overlaid stems into a coalescence of sonic splendour. Synths need to pump, guitars need to scream, beats need to be fat, and vocals need to be crystal-clear, and all of this frequency-honing is done during the mix stage.

Though some artists tend to be self-sufficient, mixing as they go, training yourself to be a focused expert in this process, while keeping to a reined-in budget isn't an impossible task. Firstly, getting a grip on how EQ-works, and how detailed plugins can give you an exploded view of every facet of the sound in question, is vital. Learning about EQ, as well as the re-tuning, effect-selection, harmonic balancing and overall stereo-positioning of each stem can be easily done with a budget approach too.

While any DAW will be fit for these processes, we feel that pushing you towards a one-year subscription to Pro Tools - the industry standard for mix engineers everywhere - is a good choice at this stage. Get to grips with it - and its onboard mixing capabilities - and you'll be primed to use it in a more professional context down the line.

Elsewhere, we've chosen some solid compression and EQ options from Waves and FabFilter respectively. Big names in the plugin world, Fabfilter's Pro-Q 3 might seem like overkill at this stage, but arming yourself with one of the industry's top drawer EQ champions isn't an unwise purchase. We also recommend Oeksound Soothe 2 - a dynamic resonance suppressor that operates via ever-changing algorithms to make each part of the mix shine...



THE DAW

Pro Tools Artist £79/year

Perhaps the world's most widely used DAW, Pro Tools Artist - available for a one-year subscription at £79 - furnishes you with a massive assortment of mixing tools. Its 100+ plugins include dynamics and EQ, filters and emulators, reverbs, delays and more. Familiarising yourself with Pro Tools over your year subscription is also a smart use of your time.



THE EQ

FabFilter Pro-Q 3 £134

Purchasing FabFilter's masterful EQ powerhouse will stand you in good stead for any and all mixing tasks. With per-band mid/side processing, linear phase operation and its remarkable spectrum analyser, Pro-Q 3 explodes your sound and helps you fine tune misbehaving frequencies. Its workflow and feature set are arguably unparalleled.



THE HEADPHONES

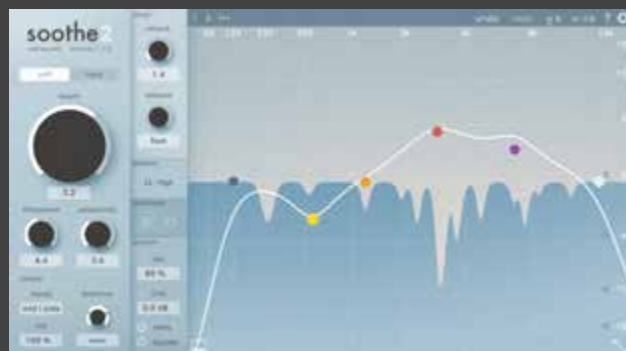
AKG K52 £30

Listening closely to your projects is essential, yet at this stage we can settle for something that just emphasises absolute clarity and has a flat response. AKG's closed-back K52s are a solid budget pair. The design eliminates audio spill and 40mm drivers deliver a respectable frequency response. They're also pretty comfy – an underrated aspect.

THE COMPRESSOR

Waves CLA-2A £60

A painstakingly modelled version of compression legend LA-2A, complete with producer extraordinaire Chris Lord-Alge's personal presets, this software compressor works a treat on real instruments, vocals and acoustic drums. Able to enhance and glue mix elements with warmth, CLA-2A is a popular mix tool that has found favour with many seasoned mixing veterans.



THE MIRACLE WORKER

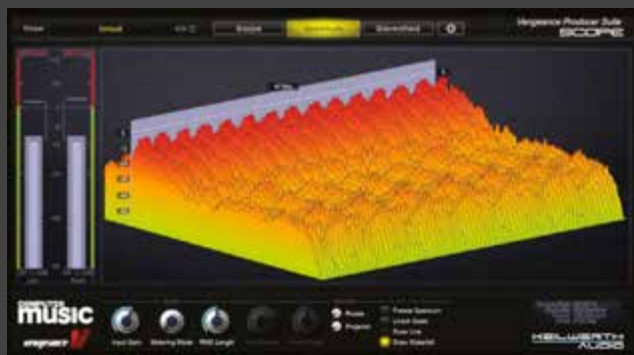
Oeksound Soothe 2 £169

Going beyond what a traditional EQ might offer, Oeksound Soothe 2's spectral processing can easily determine warring frequencies and not only even them out, but enhance the particular resonance characteristics via its manipulable notch filters. It's super smart and, if you follow its lead, is an able director of how to do things *right* when digging deep.

THE FREEWARE

Vengeance Sound Scope 2 £FREE

For our (no!) money, one of the most useful mixing and mastering tools in the CM Plugin Suite is the Vengeance Sound Scope. Able to peer into frequencies in real-time, this handy metering and monitoring tool can also be used on the stereophonic field, perfect for use on your mixing or master output.



TOTAL COST = £472

How to get better song masters without shelling out

The final stage of preparing your music can be costly, unless you take the reins yourself. Here's our guide to building up that solid mastering hub

Once all is said and done, applying the final touches to your track - stereo enhancement, adjusting loudness levels and a deft use of dedicated mastering compressors - can make or break your hard work. While it's become something of a cliché to describe mastering as a 'dark art', there remains some mystery around the processes and approaches that only experience can truly shed light on.

In previous decades, mastering engineers could charge a pretty penny for sprucing up your track, but now we can enjoy online mastering via AI and, better yet, the ability to tackle the process ourselves at home. These have made what was once the reserve of razor-eared experts another learnable skill. Mastering, whether it be in stereo or via stems, ensures that your track will stand out, and meet the release standards of other tracks on the radio, streaming platforms and more, guaranteeing consistent volume levels.

Mastering tools range from the extremely malleable to swift applicators of industry norms, and while prices vary, we've scooped up a few affordable pieces that together will equip you with all you need to get your tracks ready for public consumption - for under £500. Central to this arsenal is Steinberg's WaveLab, a multi-faceted software mastering factory that thankfully comes in budget-conscious, Elements form. While lacking many of its more costly bigger brother's bells and whistles, this version is still a far-reaching environment in which to master, including broad metering options and clean-up tools.

We've also thrown in wide-ranging software from some of the industry's most acclaimed experts in this field, namely Eventide's equalisation workstation EQivocate, and Leapwing Audio's dynamic processing monolith, Dynone 3. Also worth hoovering up - while it's currently generously priced - is Waves' Abbey Road Mastering Chain, as used on some of the greatest records ever made.



THE DAW

Steinberg WaveLab Elements 11 £110

This streamlined version of one of the industry's most acclaimed mastering packages still bursts at the seams with tools and functionality. It features vibrant metering, real-time audio processing and sound-carving plugins, including a nifty DeEssser, Expander and PingPong Delay. The perfect foundation on which to base your mastering studio, it's also smartly keeping track of your every move, allowing agile access to prior versions of your masters.



THE EQ

Newfangled/Eventide EQivocate £134

EQing spans both mixing and mastering, with delicate wrangling of frequencies. Yet with its super-handly Match EQ feature, this superb graphic EQ from Newfangled Audio and Eventide can auto-match your EQ with another track on the side chain - a real time saver!



THE HEADPHONES

**Sennheiser
HD 280 Pro £75**

While your best bet when mastering is to play your track on a variety of monitors and headphones, for the nitty gritty, you'll be able to rely on Sennheiser's HD 280 Pros. Their linear sound reproduction provides an accurate picture of your developing master. Both a comforting fit, and a detailed pair of cans for the mobile masterer, the HD 280 Pros will let you hear what you need.

THE FREEWARE

D16 Group Frontier £FREE

An extremely versatile limiter plugin, for absolutely no cost. The D16 Group Frontier plugin is our top pick for the spend-averse mastering engineer from the CM Plugin Suite. Its simple interface provides the swift means to bring track volumes up to industry standards, applying a coating of harmonic saturation, and controlling the frequencies of real instruments and vocals.



THE BLACK MAGIC

**Waves' Abbey Road TG
Mastering Chain £32**

Recently reduced in price, Waves' modular mastering chain plugin is modelled after Abbey Road Studios' TG12410 Transfer Console, which has been harnessed on all Abbey Road's records' final masters until this very day. With this software version, you can impart the magical qualities of their intricate gear-chain on your master bus with ease.

THE DYNAMICS CONTROLLERS

**Leapwing Audio
Dynone 3 £179**

Effortless mastering with wide-ranging scope is at the heart of the Dynone 3, a five-band compressor and expander, that can use its internal algorithms to set its own attack/release times. It's also packed with variable crossover filters and signal-blending scope, amongst many other applications.



TOTAL COST = £476

> cover feature / power up your music

Big guitar tones for zero outlay

Need oomph for your guitar tone on a budget? The CM Plugin Suite has just the thing

> Step by step 1. Create a big guitar tone for free



1 > Open an instance of the plugin as a mono effect in your guitar track. At the top of the interface you'll see input/output knobs as well as high-pass (HP) and low-pass (LP) dials, these are useful for eradicating overly bright or bassy frequencies.



2 > At the bottom of the interface you'll see a drop down where you can select from a range of simulated amps, from the compact D'Mal to the raucous Kamikaze.



3 > Each virtual amp head contains classic EQ knobs as well as depth/presence dials to add more low end rumble or zippy treble to your tone. While the amp head is one thing, the other crucial tonal element is adding the right cabinet.



4 > On the bottom left you can choose from ten beefy cab sim designs. Both head and cabinet are great starting points with which to customise your tone, if you're building up a multi-tracked metal guitar, you'll easily find something to satisfy by melding this virtual gear.



5 > If you want even more fire, clicking on the Djentbox icon in the bottom middle of the window opens the plugin's bespoke overdrive pedal.



6 > With this pedal, you can filter the low end to give it more bite, and drive the sound much louder in the mix. With a combination of these tools, Grind Machine CM is a great cost-saving way to get a better guitar sound.



PRO TOOLS

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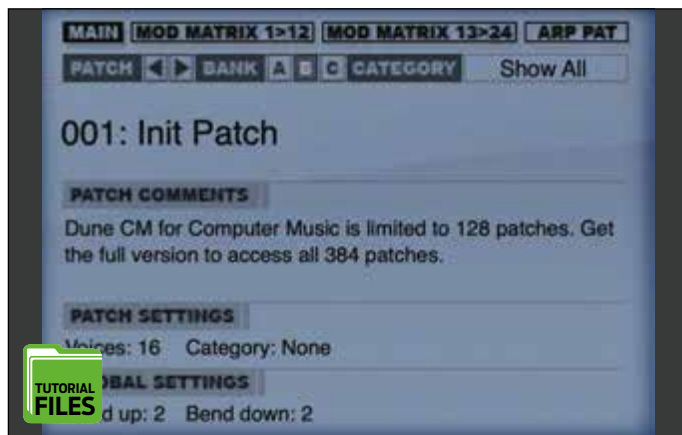
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Free sound design with Synapse Audio Dune CM

Available from the Plugin Suite right now, Dune CM can be used as a solid – and free – sound design synth

> Step by step 2. Making your own sounds



1 > A great first step with sound design is using the mod wheel to change oscillator and envelope parameters, morphing the sound. Press Bank B the middle panel to create a new patch. At the top of the UI you'll see the twin oscillator controls, make sure that the Osc Mix control is raised so we're able to hear a balance of both.



2 > Press Sel and cycle the waveform options for each oscillator from the drop down. Concocating interesting combinations is one of the joys of sound design, and we've elected to work with number 59 and 33, the Oscillator 2 fine-tuned slightly off to give the sound a more resonating vibe.



3 > While the sound has a calming, meditative quality (check out the file Audio 1 which you can download to hear this), to make it more ominous we bring in a growl on Oscillator 3 (Audio 2) and start looking at how we can modulate the sound.



4 > Click on the Mod Matrix >2 button in the centre panel. Here you can assign your pitch and mod wheels, as well as velocity controls to various parameters in the synth. We've scaled the level of Oscillator 3 so we can gradually glide from a dirty noise synth to ethereal peace.



5 > There are three LFOs which can generate sawtooth, square, sine or sample and hold waves, and these can be used to add vibration and pulse to your thickening sound. For further thickening, Unison mode allows you to add up to eight extra voices. Click on the eight buttons to hear each, and use the Spread knob to widen the field.



6 > Applying the mod wheel to the Filter cutoff gives us a nice frequency sweep. You can hear our result by listening to Audio 4 (from the tutorial files you can download). This is just one indication of how astonishing this remarkable free synth can be!

THE LAST 303



Phoscyon² AcidLine

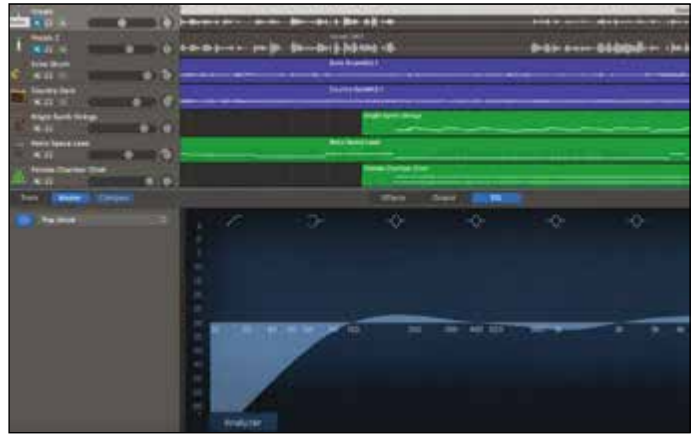
redesigned emulation / in-depth calibration / vibrato / tailored distortion / flexible fx chain
convenient sequencer / 700+ presets and patterns / live override / handy MIDI export / creative randomizer
producer-oriented arpeggiator / scalable UI / M1 support / VST2, VST3, AU, AAX

> cover feature / power up your music

Budget mixing in Garageband

Essentially a lite version of Logic, Garageband has all you need to record and mix a superb demo...

> Step by step 3. Using Garageband for mixing



1 > In Garageband you can use AU plugins to bring your track up to considerable quality. Click on an individual track's Controls page to dial in your choice of AU plugins. There's no centralised Mix window but balancing, effect application and equalisation is straightforward.

2 > For our lead vocal, we click on the EQ window to tailor our vocal's frequency as with Logic. Press A to show automation. Here you can apply all-important volume control to a rough take, ironing out the louder parts of the vocal and boosting those quieter parts.



3 > Garageband's onboard Compressor is fairly solid, and allows you to precisely adjust its ratio, attack, gain and threshold. For our track we compress an occasionally over-distorted vocal, and add some make-up gain to cover it.

4 > Aside from vocals, Garageband presents a hefty amount of finely-tuned presets for guitars and bass, and heaps of virtual instruments. Panning two guitars left and right (at -30/+30) gives stereo breadth to our chord sequence.



5 > Layering in a bed of electronic noise (scaled by our modulation wheel), as well as a track of melodic synth lead and an ethereal choir, pads out the demo. Using Garageband's Master Reverb options allows its sound to permeate more broadly.

6 > Good mixing ensures that each part of the song fits. Stereo panning, and volume adjustment is key, and is seen in Garageband's left-hand track display which allows for delicate fine-tuning. The ability to use your plugin collection is another boon.



TURN ON INSPIRATION



u-he.com

Free audio analysis with Vengeance Sound Scope

Analyse your audio using the kind of detail you'd normally pay for!

> Step by step 4. Audio analysis for free



1 > When mixing, a hugely useful tool that we regularly refer to is Vengeance Sound Scope, the free analysis and metering toolkit, and part of the CM Plugin Suite.



2 > Scope's first view allows you to see the stereo waveform of the track, mix or master output with the detailed left/right level meters permanently on the left-hand side.



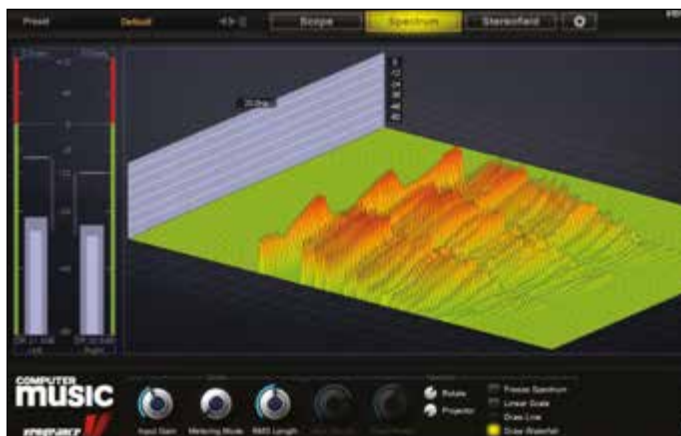
3 > While this view allows you recognise clipping and troublesome spikes on both stereo channels, you're also able to view each individual stereo track by adjusting the Channel Mode rotary.



4 > Spectrum view provides a frequency-balanced graph, with the vertical position displaying the amplitude. Here we can see a visualisation of our track, giving a vital overview of our frequency range's peaks and troughs.



5 > The Stereo Field view adds mid/side metering, and at the centre gives a stereo phase meter so you're able to determine the positioning of your sound (or master track) relative to the stereo field.



6 > Scope has everything you need to scrutinise every inch of your waveform, and further elements, such as the superbly detailed 3D sonogram, de-essers and more, make it a top tier tool for your mixing and mastering needs.



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Bigger vocals for free with zplane Vielklang 2 CM

Bolster your vocal performances with zplane Vielklang 2 CM from the new CM Plugin Suite...

> Step by step 5. Bigger vocals and harmonies for free



1 > A top-notch creative tool that you can access right now, this smart harmony generator can augment your instruments and vocals with additional harmony and melodic layers.



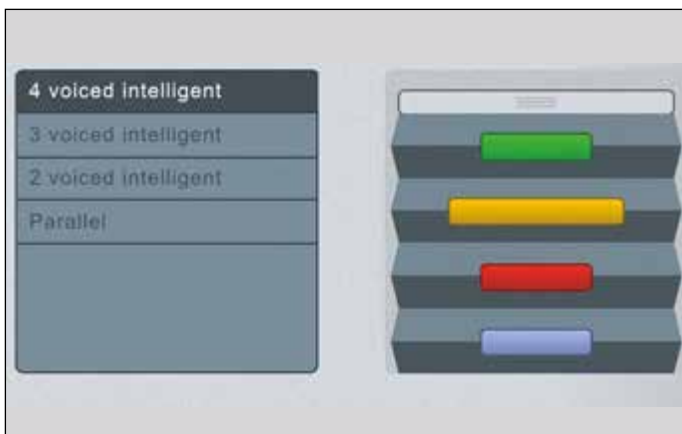
2 > Open the plugin as an instrument, then drag and drop your vocal take or sample into the main window. You'll quickly see a piano roll-type depiction of your sound's melody and pitch.



3 > Selecting all of the notes of your vocal, and pressing the large Harmonize button at the top of the UI instantly creates smartly layered higher and lower harmonies...



4 > We can quickly change the key by cycling through the lower left's key selection area, and incrementally drag slightly weird-sounding notes through semitones manually via the main window.



5 > Further voices can be added, by selecting between the 1-4 voiced intelligent harmony options, and using the multi-coloured draggable box in order to space out the harmony lines wider in the tonal landscape.



6 > The separate harmony lines are neatly colour-coded, and can be independently fine-tuned under the voice control tab. Vielklang 2 makes it super easy to bolster your vocals with pro-sounding harmonies in minutes.

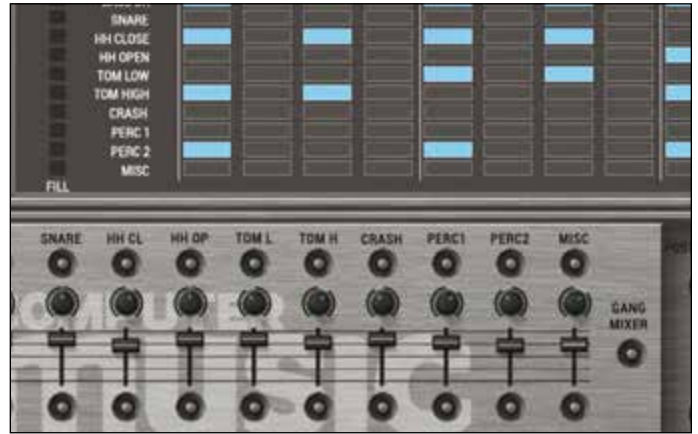
Budget beat-building with XILS-lab StiX CM

Included in the new CM Plugin Suite and will have your beats building in no time for no cash...

> Step by step 6. Budget beat-building



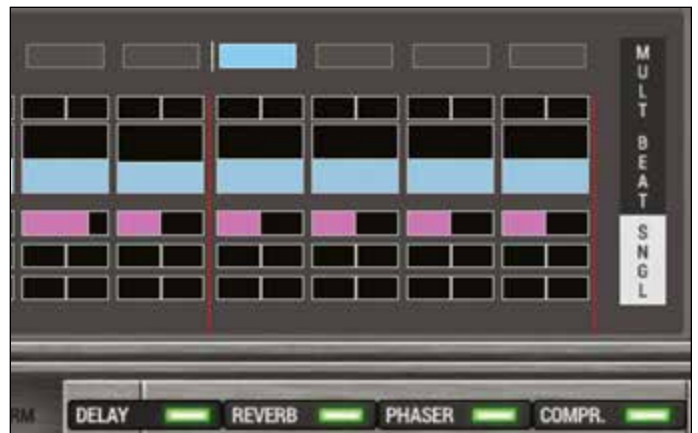
1 > If your objective is creative beat-building on a tight budget, then look no further than the CM Plugin Suite, and in particular, XILS-lab StiX CM. A drum machine, synth and sequencer rolled into one.



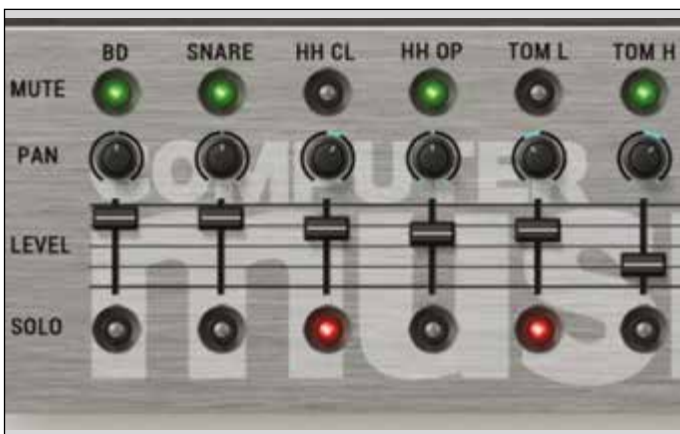
2 > StiX CM has a powerful sequencer at its heart, with each drum element listed on the left hand-side of the window. You can change kit by clicking Load Kit drop down in the top right or randomise kit parts by clicking RAND.



3 > While you can choose from a number of preset rhythms by cycling through the top left drop down, the sequencer is easily editable, by clicking on each step within a lane, to shape your beat. Hit play in the bottom right to hear how the beat's progressing.



4 > At the end of the sequencer, you can edit each lane with more precision by clicking SNGL to activate single-lane edit mode. Here you can fine-tune the position, velocity and gate timing.



5 > Each of StiX CM's drum channels can be edited by raising or lowering the corresponding faders on the bottom left, while a variety of effects, including delay, reverb and phaser can be adjusted on the bottom right panel.



6 > StiX CM isn't just a drum sequencer, it's also got some impressive sound synthesis abilities in the top right you'll find filtering and pitch-shifting controls to colour your drum sound (s). **cm**

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HOPE AND HOMES FOR CHILDREN



URGENT APPEAL



Russia's brutal invasion of Ukraine is not just a humanitarian crisis for the Ukrainian people; it's a child protection emergency.

Up to 100,000 children warehoused in Ukraine's vast orphanage system – a network of over 700 buildings – risk being forgotten. Left to face the dangers of war alone as staff flee. As families are torn apart or forced from their homes, many more children are at risk of being separated from the love and protection they desperately need. Worse still, they are at risk of trafficking, or being placed in overcrowded, understaffed and poorly resourced orphanages in border countries.

We must act now.

Born out of the Balkans conflict 30 years ago, we've championed the vital importance of family and community-based care of children and our teams are on the ground in Ukraine, Moldova and Romania to ensure this war does not rob children of the love and protection they need now more than ever. Across all three countries, we're directly supporting displaced families and unaccompanied children with material

and emotional support. We're working closely with authorities to keep families together when they are at their most vulnerable and to fight for the safe tracking, monitoring and care for children without parental care. And we won't stop when the fighting stops.

Will you help us by donating?

With your help, we can avert a child protection crisis of epic proportions and ensure children are protected and kept in families. Never orphanages.

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Please quote **FP22 - Mus** when making your donation.

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HOPE AND HOMES FOR CHILDREN



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Synth Masterclass
with *Dave Gale*

48 Laser harp with ZebraCM

Dave Gale creates his very own laser harp with ZebraCM. (OK, the sound of one, anyway.)



Production
with *Ashley Thorpe*

50 Using Drummer in Logic

Ashley Thorpe investigates Logic's Drummer feature and how it changed how he made beats forever



#20

ZebraCM Laser Harp

This month, we recreate one of the most iconic synthesiser sounds from the last 50 years, the Laser Harp



> **Believe it or not, even us folk from cm Towers were once young and naive! During those heady days of music-technology optimism, we'd think that Roland Rhythm Composers (Roland's description of drum machines) really did compose the rhythm that you heard! And the notorious Laser Harp, co-developed by synth legend Jean-Michel Jarre, really was the sound of lasers!**

We don't want to be the people that burst the bubble, but we are here to tell you that the iconic sound of the Laser Harp was in fact a Synthex synthesiser, manufactured by Italian company Elka. Regrettably, as a company, they were liquidated many moons ago, but the spirit of the sound of the harp lives on, albeit tinged with regret that the Laser Harp contraption itself was nothing more than a MIDI controller, but the coolest controller you've ever seen in your life!

The great news is, it is possible to recreate more than a passing facsimile of this sound, using our very own ZebraCM plugin synthesiser. This patch is very reliant on the Oscillator Sync function, which we have at our disposal. So grab your vintage beat-box samples and create some electronic music magic. Is now a good time to mention that you can buy Laser Harps commercially? Why not plug that into your DAW and design the future?!

>Step by step Create the Laser Harp sound



1 > Let's begin by initialising a patch on the ZebraCM. Open up your DAW and load up the plugin. Once the plugin window is open, move to the central display at the top of the window, click to reveal the dropdown menu, and select 'init' from the bottom. This will initialise the patch.



2 > This patch is going to be a relatively loud one, so it's a good idea to reduce your master volume to a level of 50. Just as a reminder, every time you tweak a pot or setting on the plugin, you will see an accurate value/numeric in the upper display.



3 > Let's begin sculpting our sound within the OSC1 section; leave the waveform set to the default Sawtooth wave, but change the volume to a value of 60. In this patch, OSC1 is going to be a subsidiary sound to the main event, created in the OSC2 section, hence the decrease in volume.



4 > Switching to the OSC2 section, we also want to leave the waveform as its default of a Sawtooth, but we do need to increase the volume of this oscillator to a value of 100.



5 > Staying within the OSC 2 section, slide the SYNC switch to the right, which will activate the oscillator sync function. We also need to set the sync amount, on the pot below, which we set to 14.



6 > Now we need to modulate a sweeping effect, within the OSC 2 section. Assign the Sync pot to ENV2, then set a modulation amount of 28. To do this, click, hold and drag the small turquoise circle, located to the upper-right of the Sync pot. You should see an orange outline emerge, around the outside of the pot.

Dave Gale



Dave Gale is an Emmy award-winning media composer, producer and orchestrator, with an enormous passion for synthesizers, in all their forms. His varied composing style embraces everything from full orchestral and hybrid scoring, to fully electronic scores, employing synths wherever possible. He also happens to own some of the finest synths in existence but we're not jealous, OK?

PRO TIP

PLAYING LEGATO

While the ZebraCM plugin is a pretty exceptional synthesiser, particularly when you factor in its free-ness, it makes it all the more exceptional that we can create a sound so close to the original JMJ patch. However, we are always striving to locate those exacting details.

One such detail would be the way you may approach playing the sound. If we are going to be purist, verging on pedantic, when you listen to one of the original deployments of the sound, on Part 2 of Jean-Michel Jarre's *Rendez-Vous* album, you will hear that the phrase is played very smoothly, or legato to give it its Italian term. By playing it this way, there is no

re-triggering of the envelopes, meaning that the Sync sweep descends unabated, without re-attack mid-phrase.

If you want to create the same sort of effect in your own track, consider switching from Poly mode, to Legato mode, within the plugin. You will find this setting in the Global section, on the left-hand side of the plugin.

There is, however, a trade-off with this change of mode, which means that you will only be able to play one note at a time. This may not be an issue in this context, but if you want to explore playing chords, you will need to revert back to Poly mode.



7 > Move on to the filter section. Select the LP 12dB filter. As with all filter styles and tones, you can definitely experiment with this setting, trying other filter types to suit your production style or music genre. The vintage filters will sound more like the original sound.



8 > We need to lessen the filter cutoff, by reducing the cutoff amount to a value of 61. Decreasing the cutoff value at this stage will help add some bite to our sound, which we will do through modulation in the next step.



9 > Staying within the filter section, assign the Cutoff Modulation pot to ENV1. This is normally assigned to ENV2, for independent control. However, we are using ENV2 to control our Sync sweep, so on this occasion ENV1 will extend to both filter and amplitude duties.



10 > Now we can assign the filter cutoff modulation amount from ENV1. Set this pot to a value of 43. You can increase this value if you feel that you want even greater bite or brightness at the front of each note you play.



11 > ENV1 is going to be controlling both the volume/amplitude of our sound, alongside filter cutoff modulation. Make the following settings: Attack pot 0, Decay pot 38, Sustain pot 79 and Release pot 27.



12 > Finally, our settings of ENV2 could be the most important part of the sound, as they influence the speed of the Sync sweep. Change the Attack pot to a value of 0, Decay pot to 91, Sustain pot to 0 and Release pot to 33. For a faster sweep, reduce the value of the Decay pot. Now plug in your Laser Controller, and you're good to go! **cm**

Get more from Drummer

Ashley Thorpe reveals why you should be exploring Logic's intuitive Drummer tool. Even non Logic users will be tempted...



> **One of Logic's popular calling cards for new music creators has been Apple Loops - the ability to drag and drop a whole world of instruments and enhancements onto your timeline. But their masterstroke has been a tool that goes far beyond just drag and drop. The Drummer tool is highly intuitive, responding to your composition. It might just be the best tool you aren't using enough.**

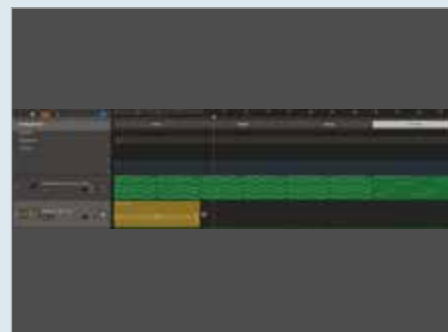
Programming your own drums is fun and fluid, and this tool can act as an enhancement

just as much as a direct replacement. There are many different foundation sounds available to you based on the genre of music you're producing. The range you're able to customise based on that is quite frankly staggering. I know guitarists who've used Drummer to actualise their own compositions, in the absence of having a real-life drummer to hand. You might not even know the difference with enough time dedicated to perfecting the sound! That's how good this tool can be.

Of the multiple different styles available, you can create so many possibilities because your composition is always going to be different to anyone else's. So imagine lots of different types of percussion/kit - the sound of the kit is fully customisable. It responds to arrangement markers so if you need a cool pre-chorus fill idea, an energetic, huge chorus, a bridge, intros and outros, Drummer can do it all.

So let's get straight into this month's Drummer tutorial, from the top...

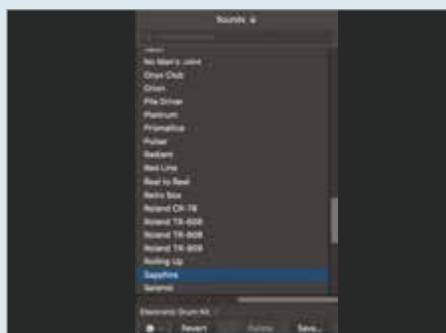
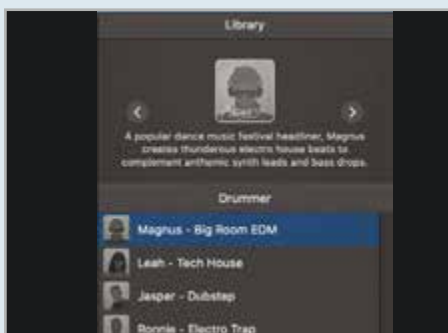
>Step by step How to get the most from Logic Pro X's Drummer



1 > Our starting point is a pre-composed track or just a recorded MIDI track, eg, bassline, lead or melody. Click to add a new track and select Drummer from the options available to you. On the bottom left, under Genre, you'll be given a dropdown list of different base genres to choose from. Select the style appropriate to your track.

2 > Note that you can change genres later on if you need to, but after pressing Create, Logic will create a new track populated with formulae drum patterns. The first thing to do is obviously give the pattern a listen and see how Logic has interpreted your track. You might be surprised by the results as a starting point!

3 > If you use arrangement markers (and I recommend that you do) the drum patterns will adapt to each different part of your composition from the start. Press the Plus marker that appears to the right of the initial pattern and it will fill the next few bars automatically. But don't worry, you can change everything to suit your own taste and vision.



4 > Now take a good look at what's available to you for controlling the drum track. Make sure your Library panel is set to visible. In the panel (left-hand side) you'll see that different styles within your chosen genre are available to you. Each style of drum is given a name. You can set your project to loop while testing out the different kits available to you.

5 > Beneath the Drummer style you have the additional option to change the sound of the drum kit. There are many kits available to just help you tweak the sound even further. And if you look back to your timeline, you'll see that the pattern changes with your every move.

6 > Next we'll look at your Drummer editor panel. This is one of the most exciting parts of the tool as you get to tailor the sounds to your liking. There are even more beat presets to choose from. At different points in your track you may want to use any one of these presets to add some variety to your drum tracks, much like a real drummer would.

Ashley Thorpe



Ashley Thorpe (aka Breezewax) is a producer and musician who has created electronic music for over a decade. He typically uses a mix of samples, field recordings, synthesis and live instrumentation in his work, which covers a variety of styles including hip-hop, chill-hop, neo-soul and R&B. He also works as a music facilitator and freelance audio engineer.

PRO TIPS

TOOLS OF THE TRADE



HARDWARE SYNTH OR SOFTWARE PLUGIN?

It can be difficult to know what equipment is best for the music you're making and for the space you have in your setup. Remember that there are, more often than not, plugin versions of classic synths. It might be best to trial these out before investing in hardware if you're operating on a budget or haven't had a chance to use the hardware. There's no doubt that hardware can be far more satisfying, especially when working on the fly, but give any purchase a lot of thought for how it will serve you and your music in the long term.



WHAT I'M LISTENING TO: FAT JON – SHARED DREAMS

I've admired Fat Jon for a long time. One of the traits I love about his music is his intricate percussion and drum programming. So imagine my surprise when *Plaything: Cipher* opened with a synth-led drumless instrumental *Shared Dreams*. There are so many layers here from the simple, moving bass synth that keeps you grounded, to the soaring arpeggiated pluck, lush strings and otherworldly effects. I've listened to this many times and can't believe how effective it is for such a short piece; all its layers come together seamlessly.



7 > You have an X-Y matrix ranging from simple to complex and soft to loud to really improve the dynamics of your drums. The Drummer tool is smart and will react to your song. If instruments drop out at a pre chorus, it'll create a fill; if there's a big hook, the tool adapts to add more parts of the kit like a cymbal ride.



8 > The last part of the Editor panel gives you complete control over the amount of kit features that will be in any one part of your composition. There's a dial to adjust the amount of swing on the drums. You can even control the amount of drum fills at the end of a four or eight-bar section.



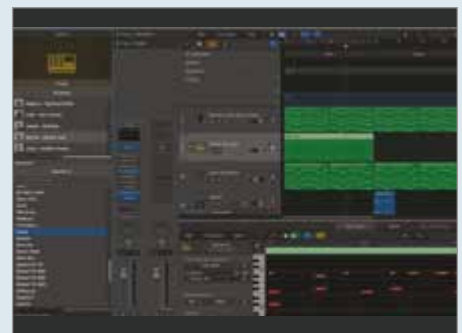
9 > If you want a different feel, make use of the kit sliders. Elements are split by Percussion; Cymbals, Shaker, Hi-Hat; and Kick, Snare, Claps. The sliders go from 1 to 5 to allow you to control the amount of any of these elements you want in a region of the drum track. Items that are greyed out aren't included, so click on any instrument you want to add or remove.



10 > It's important to note that the Drummer tool isn't MIDI information. There may come a point where you'll want the same level of control over each part of the drums that you'd want with MIDI information. Thankfully that has been taken into account and you can convert the Drummer tracks you've created into a MIDI region.



11 > Just right-click on the track and select Convert to MIDI region. Now you'll see that the Drummer notes are all MIDI, fully customisable in the edit panel at the bottom of the timeline. You can move the notes to any position you like, change their velocity etc, just like you would from your own MIDI-recorded performance.



12 > Even though you've converted the Drummer track, the kit and genre options are still available. This level of flexibility makes the Drummer tool one of the most notable in Logic. Even if you've programmed your own drums, there are additional percussion options available to you by adding a Drummer track that could enhance your overall sound. **cm**



DC GORE

DC Gore is reinventing the sounds – and synths – of the 80s in a completely new and unique way. We dig deep into his mind (and hard drive) to find out why that decade has stuck with him and how he gives it a very 2022 twist

> **Contemporary artists of all stripes are looking to the 80s for direction: from The Weeknd's pitch-perfect invocation of 80s radio hits to Mitski's glittering embrace of synth-pop drama, it's clear that the decade represents a deep vein of inspiration for both songwriters and producers.**

Some artists' adoption of the 80s aesthetic may be skin-deep, simply another stylistic detour to tick off the list for an oversized, genre-hopping blockbuster album release. Many others, though, are driven by a fascination with the era that's anything but superficial, finding something of themselves in a period they could only experience second-hand.

Dominic Gore is one of those artists. Driven by a complex and deeply personal enchantment that goes beyond mere nostalgia or gear fetishism, he absorbed the decade's vibe through cultural osmosis, channelling The Pet Shop Boys, John Carpenter movies and the black humour of J.G. Ballard into music that reimagines 80s synth-pop through contemporary methods, forgoing Jupiter-8s and analogue tape in favour of Arturia plugins and Ableton Live.

"I love a lot of music from the 80s – I'm not quite sure why that is," Gore tells us. "There's something about the songwriting. It's not about the synthesisers so much, even though I do love the sound of all that stuff... there's just something about the mood that's permeated into my consciousness."

We caught up with DC Gore following the release of *All These Things* to dig deeper into these influences and hear more about the creative process behind his densely layered, darkly comic new album for Domino Records.

cm: Could you tell us a little about the background to this album?

DCG: "I was in a band before this. Basically, that band dissolved, and at the end of that time, just as I was really getting stuck into working on this album, lockdown hit, and changed everything in terms of the way we could put stuff together. It then became very much a process of trying something a bit different. I didn't have access to a studio. So I started having to travel around a lot more, doing stuff remotely or on my laptop, or going in for a day somewhere and then having to go and work on it somewhere else."



“It’s flipped my idea of how you make an album completely. Prior to that, it was very much like: are you going to the studio for two weeks, or six months, or two years? Depending on what album you’re making, right? But this was like, actually, I can just do something in a completely different way to what I’ve been doing before. Working with people not in the same room really changed how I could do things. A lot of the musicians on the album recorded in different locations, or they’ve sent me things, or sometimes sent me hours of audio to sift through, and I’d just pick up the bits that I like. It’s a very different process to sitting with someone and saying, ‘you play that,’ or me sitting there and playing it, you know?”

cm: Do you think that comes across in the music, that shift in your creative process?

DCG: “100%. Even though I make acoustic music, I work predominantly with loops, and I work predominantly with Ableton, though I’m using an MPC now. So, it’s constructed in the same way that you’d make more electronic music, but you’re working with audio of acoustic instruments. So, it’s not quite the same as using samples, but it has a similar thing, a chopped-up feel to it.

“There’s a lot of detail in there. You wouldn’t necessarily sit down and write that if you were going to through-compose something. Some of the musicians I hadn’t even really spoken to properly, until after lockdown - we just made some stuff remotely, then I edited through it... they had no idea what I was going to come back

“We just made some stuff remotely, then I edited through it... they had no idea what I was going to come back with”

with. So they’ve had a shock when they heard which parts I’d kept and which I’d thrown out.”

cm: How much direction were you giving the performers in terms of what you were after?

DCG: “Initially, I tried to give people detailed instructions, but I’ve come to accept that this doesn’t really work. Working with different engineers and mixers over the last few years, you always go in with a reference list, and you go, ‘yeah, we want it to sound like this!’. When you’re in a band and you don’t really know anything about actually mixing records, you think you’re going to reference an album and it’s gonna sound exactly like that album, and you’re like - ‘why does it not sound like that?!’.

“What I’ve realised now is, that way of trying to work makes you not like what you end up with. And it’ll just cause conflict in the process, and you don’t really want that kind of conflict. What I’ve found is that you have to pick somebody, and then you have to trust that they know what they’re doing. So if what comes back

isn’t right, and it’s a million miles away from what you want, you’ve probably picked the wrong person. I’ve had situations where I’ve tried to sort of shoehorn somebody into an area that I want them to go into, and then it makes it worse, somehow, or it loses the original intention of the idea. So I try to avoid that, if I can. Trust people to do something good.”

cm: Have you always worked in Ableton?

DCG: “I flip all the time. I’m using LUNA at the moment, which I love. I’ve got my UAD plugins in there. But Ableton, for me, is the most natural DAW to construct things in. Similarly, I’m trying to move more into doing similar things on the MPC, like building in Session View on Ableton. It just works really well for my brain, the way that you can construct things very quickly.

“I work with Logic in the studio sometimes, because the studio that I mix in uses Logic. And there’s things about Logic I really like, and sometimes I’ve used Pro Tools in the past, but predominantly, I find the workflow on Ableton really suits my brain. Not quite sure why that is. I remember when I was in college, I tried to use Logic for about a year and I just couldn’t get it to do what I wanted it to. I was watching YouTube tutorials and asking people questions, and it just felt really boring. But I remember when I started using Ableton, I was like: ‘oh, this is really easy, this is fun’, you know?”

cm: Could you talk us through any equipment that was fundamental to the new project?

DCG: “It’s hard to say. I watched this Shawn

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Everett thing recently, where he was talking about how they'll often just pick up whatever gear happens to be around, and stick that in there. If they go into a studio, and there's a piece of equipment they don't have, they'll just run shit through it, and record it, and then they've got it. A lot of the record was kind of like that. Some of the tunes might have 180 tracks on them, which is sort of insane, and very stressful to try and sort through later.

"My bandmate, who was making the record with us and another producer Lawrence Hart, bought a Deckard's Dream quite early on in the process of making the record. We went to see *Blade Runner 2049* in the cinema just before that. We were like, oh my God, you know - it's got to have that sort of CS-80 thing, it's got to have that. There's lots of hardware, but I try to work as much as I can in the box. Especially now, just because I travel a lot, and I don't really have a fixed studio. Having stuff that I need to set up all the time slows down the process massively. Every now and then I buy a piece of gear and I'm like - yeah, I want that to be central to everything that I make now. And it is, for about a week. [laughs]

"I've got a couple of hardware desktop synths that I use for live performance. I got the Waldorf Blofeld because I saw a thing with another producer where she said it was incredibly easy to make anything on it. And I was like, that's brilliant. Then I started sitting down with it, and I was like: I don't really want to make anything. I just want to make these five sounds. [laughs]"

cm: Which plugins are you a fan of?

DCG: "I use the Arturia stuff a lot. As I said, I use the UAD stuff a lot. Then there's some other weird third-party plugins which I've picked up over the years."

cm: Any oddball plugins?

DCG: "Nothing that's particularly unusual. I did a very short course in Max/MSP when I was at college. So every now and then I get in my head that I want to use these Max/MSP plugins and I'm gonna be Jonny Greenwood. [laughs] Again, it's too involved for the way that I make stuff. I'm predominantly a songwriter. I do want to get into the details, but if I spend too long on it. It's not a huge benefit to me."

cm: Could you run us through any influences behind the direction of the new record?

DCG: "It's hard to say because it changes all the time. You know, you hear a record, and you're like: 'yeah, it should all sound like this, I've just

"We went to see *Blade Runner 2049* in the cinema... We were like, oh my God - it's got to have that sort of CS-80 thing"

heard this thing and we should do everything in this way!'. There's quite a bit of that on it. Honestly, a lot of my references are things that it doesn't sound anything like, which I'm sure is quite annoying.

"I was reading a really in-depth interview with the guy [Dave Fridmann] that produces Flaming Lips, and Tame Impala. All of his records sound super crunchy and distorted. He doesn't really use the computer at all. It's all really analogue. He uses equipment that's either broken, or there's problems with the valves or the transistors or whatever, so that it doesn't sound right. I always think, how can I make my music sound more like this? I mean, nothing that I write sounds anything like that. But I'll look at the equipment he's got and think, what would be my version of that? I can't get that 1950s compressor that was used for this radio recording and is now broken. So what can I do that sounds like that?"

"I didn't train as an engineer or producer. I've always seen myself as more of a songwriter and less of an engineer, so I spend a lot of time watching other engineers talking about being engineers or producers. I saw a Tchad Blake thing where he said, you can't recreate the sound of something else. You just take the idea of the thing you like, and you say, what is my approximation of that? So if you like something that sounds really blown out and distorted, you may not be able to get that sound, but can you get something that evokes that same feeling to you? Does that make sense?"

Kit list

HARDWARE

Akai MPC
Black Corporation
Deckard's Dream
Korg MS-20 Mini
Waldorf Blofeld

SOFTWARE

Ableton Live
UAD LUNA
Logic Pro
Arturia plugins
UAD plugins





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“There’s just something about the mood of a lot of music that was made in the 80s. It’s permeated into my consciousness somewhere”

cm: Yeah, and that sound might filter through, in an oblique way, rather than a direct one.

DCG: “Exactly. I love a lot of music from the 80s. I’m not quite sure why that is. I think there’s something about the songwriting. It’s not about the synthesisers so much, even though I do love the sound of all that stuff. There’s just something about the mood of a lot of music and film that was made in the 80s. And books that were popular in the 80s. That’s just permeated into my consciousness somewhere.”

“The very first record that I really got into was a Pet Shop Boys album. It was *Discography: The Complete Singles Collection*. It had all this stuff that had been really big in the 80s. The songwriting just really stuck with me. I don’t know what it is, I wonder if it’s a certain mood, or like how some people are drawn to certain landscapes or something. I don’t really like scary movies, but I love John Carpenter films. Before I even knew who John Carpenter was, I remember vividly watching *Prince of Darkness* when I was a kid. I just loved the mood of this film. There is something about the sonic aspect of it that just really resonates with me.”

“That bleeds into a lot of the books that I liked. We’ve talked a lot about JG Ballard, and people like that. Everyone likes those books, so it’s not particularly unusual. But I suppose the thing that I like about Ballard is actually not quite the same thing that everyone else seems to like about it. I like the humour of it. The dodderly old man, the sense of failure in it, and this slightly weird sense of Britishness, which comes from not growing up in the UK. He grew up in Shanghai. There’s something about the mood of that time that appeals to me more than just owning an emulator, or something.”

cm: Typically when you think of an artist influenced by a specific era, they’re quite nitpicky about using the gear from that era. It’s interesting that you’re more of a software-based producer, while at the same time quite drawn to this period which lacked those tools.

DCG: “Yeah, it’s weird. Maybe I’m slightly intimidated by the hardware. Maybe one day I’ll end up like Vince Clarke or Moby or something with a million analogue synths. But I don’t want to be limited to that, I guess. I’m reading a book about *Avalon* at the moment, because I really like Bryan Ferry and the Roxy Music stuff from that time in particular. It’s just a mood, you know. It goes beyond the synths that are used. I don’t know, yeah. I’ll probably get there one day. If I get a big paycheck, maybe I’ll go and spunk it on a Jupiter or something.”

cm: What’s your live setup looking like?

DCG: “I didn’t want to just be a guy with a laptop. I don’t know why, I know lots of people that do it now and there’s no stigma around that. I’m trying to use the MPC, which is basically a laptop, with a small array of desktop synthesisers and a little mixer, and a few effects. I’ve been trying



Sound Design practices

When it comes to choosing your sounds, and your synth patches, how much sound design do you get into?

"It changes, you know. There's some synthesisers that I just don't understand. Sometimes I wish I did, and sometimes I think it doesn't really matter. For whatever reason, I just don't have the interest or the attention span to really dive in and get to know something. Particularly something that has a lot of menu diving. I can't get excited about that. The Blofeld's a bit like that. We got a Juno-60 really, really cheap, early on, when we were doing the band. It's so easy to do stuff with that, to make something straightaway. I really appreciated that, so I use the Arturia version quite a lot now.

"I did a remix for an act called TVAM last year, and I had just got the latest Arturia collection. I opened up the Juno and I was just

like: 'presets, what we got?!'. And it just instantly sounded good. Within that, I then sort of play around with it. I really go in with a specific idea of what I want it to sound like. Sometimes I'll hear something on a record and go, 'how do I get that?'. Something like the CS-80, or that Moog Modular plugin, I can spend hours just trying to follow the patching on those and not really understand how it works.

"I mean, I've got an MS-20 Mini at home, I barely understand how that's put together, you know? Even though it's written on it what each thing is. It really depends. Sometimes, if I'm really into it, I'll sit there and really work on something until I get it sounding right. But most of the time I'll approximate it and then

I'll play with it later if it doesn't do what I want it to.

"Using softsynths, you're always looking to other plugins to do the thing that makes it sound big. The reason people love using hardware, a lot of the time, is because it just sounds good straightaway. You plug it in, and it's got a sound. But with softsynths and software, often you're compensating for the fact that the initial sound isn't as good as you want it to be. So you're having to add a ton of saturation or width or whatever it is, to try and make it sound good. I'm sure for the purists out there, I've just massively minimised how difficult it is to make something sound good in the hardware world. But that seems to be my perception of it."

that out. If I was making instrumental music, and I had time to adjust everything manually while I'm singing, that would be cool. But what tends to happen is I'd have to get someone else to do it now, because I can't sing and do it at the same time. Because if you're a producer, and you're controlling the sound yourself, and you've got everything in front of you, your sole job is to try and make everything sound good, right? Then that is an incredible thing, and you can really ride the crowd, and you can get involved in that. But as soon as you throw singing into that, to multitask in that way is almost impossible.

"There's a producer I really like, Ela Minus, who has this setup based entirely around her MPC. There's no computer involved in any part of a process. I think that's really cool and laudable, but how on earth she sings and plays at the same time, I have no idea. As soon as you're trying to think about delivering words with any meaning, you're not thinking about the resonance peak on a synth.

"Trying to find a halfway house there is very tricky. Also, because I used a lot of acoustic instruments on the album, part of me is like, is it a band? Are you listening to a band? You know, is that what you're hearing? As I said, I never wanted to just use the computer, and I never wanted to just be with a backing track, right? But I don't think I ever want to use live drums. Again, I can't be held to that. I'm sure if anyone reads this in ten years, and I'm rocking out John Bonham-style, maybe they'll hold me to this. But drums add something to the mix which is just too unpredictable in a venue. So those are my three starting points, right, and everything else has to work backwards from there. That's how I'm trying to approach it. But honestly, I did a DJ gig the other day, and I just turned up with a memory stick and I was like: this is amazing." **cm**

DC Gore's new album, *All These Things*, is out now on Domino Records



HEAR MORE



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62__ CHERRY AUDIO ELKA-X

CA's latest is a take on an Italian job, the Elka Synthex, which was an analogue poly that gave digital synths an 80s score



64
Apple
MacBook Air M2



66
UVI
Mission 6



68
East West
Forbidden Planet



70
IK Multimedia
MODO Drum



72
Minimal
Audio Morph



74
Budget audio
interface roundup



Awarded to products that challenge existing ideas and do something entirely new



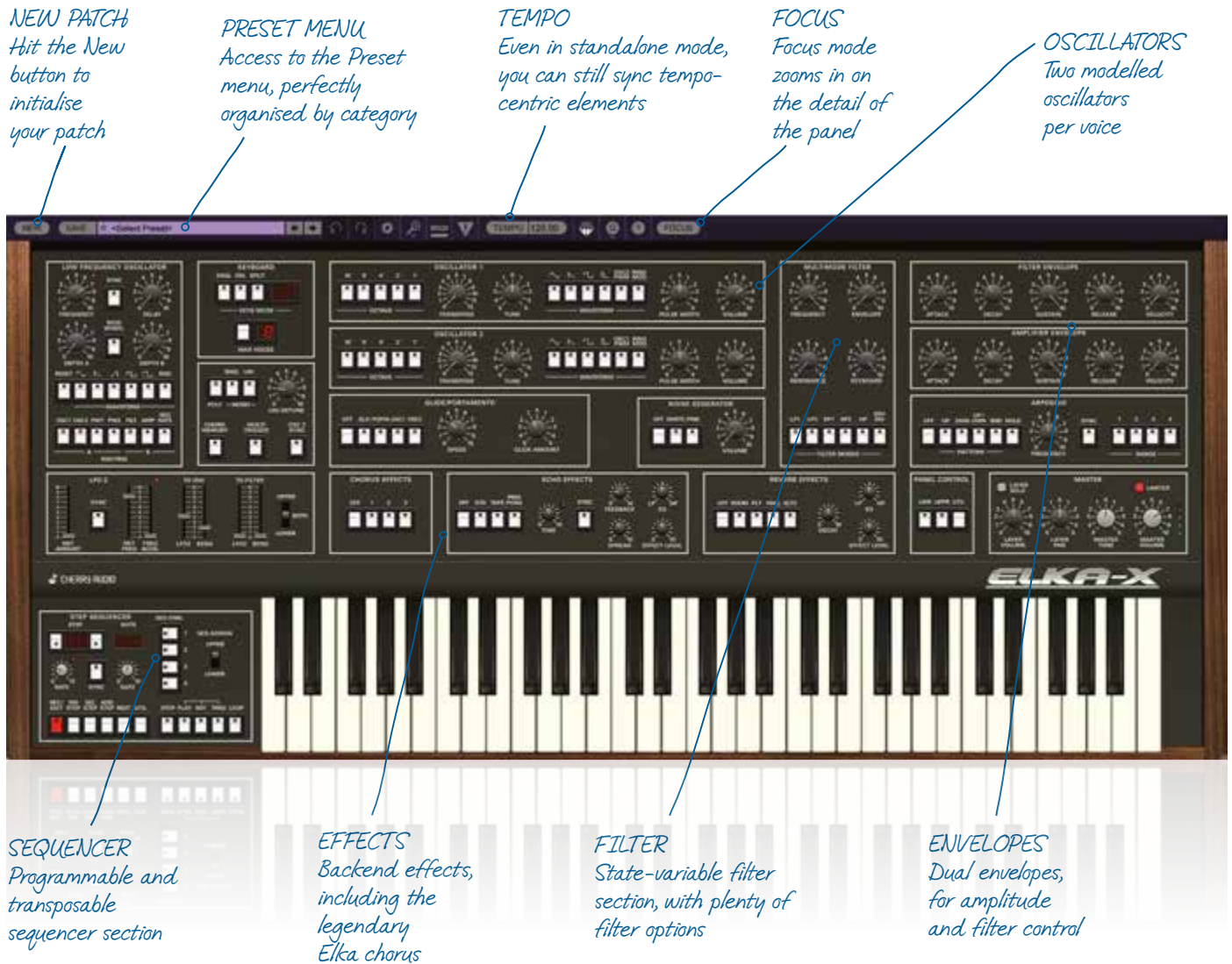
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In the opinion of the Editor, the best product reviewed in the magazine this month



Cherry Audio Elka-X \$59 PC MAC

The latest vintage synth re-model to enter Cherry Audio's lineup revisits an oft-forgotten European classic from the early 80s, the legendary Elka

> There have been some fine examples of synths over the last 50 years that have been created by smaller companies. Brands such as the Oxford Synthesiser Company and EMS produced models away from the American and Japanese spotlight. Staying with European underdogs, Cherry Audio now visit the heart of Italy, where Elka became respected producers of keyboards, organs, and the odd synth.

The 'X' factor

The Elka Synthex was Europe's answer to the large polys of the early 80s; while it was

intrinsically analogue, it garnered a number of features, such as state variable filtering and cross modulation, which meant that it gave the early digital machines a good run for their money. It's a difficult and expensive machine to find as a secondhand prize, which makes the appeal of a good plugin version all the more enticing.

Cherry Audio's impressive roster of analogue remodels in plugin form, boasts both synthesisers and effects. The all-new Elka-X embraces the very spirit of the Synthex, while making a few enhancements and improvements

along the way. The first immediate enhancement comes with polyphony; the Elka-X doubles the original's voice count to a full 16 notes, while also offering split/multitimbral operation, like the original.

The architecture provides two oscillators per voice, originally DCOs, which initiated 80s tuning stability as a consequence. Reliability of tuning is included as standard here, but the feel and sound of the oscillators is exemplary. Even with a single DCO in play, there is a beautiful depth to the lower-mids which feels entirely natural. The filter continues this tradition, with a

Even with a single DCO in play, there is a beautiful depth to the lower-mids which feels entirely natural

further enhancement; all the original options are included, from low to band and high-pass filtering, but with the addition of a grittier 12dB low-pass filter, to accompany the original 24dB.

Getting started

The Elka-X is packed with some really great presets. These are immediately accessible from the browser, and take full advantage of the Elka's complexity, right down to the inclusion of a programmable sequencer and separate arpeggiator.

However, one of our favourite features is the New button, found nestling right next to the browser area, which initiates the synthesiser to a default state. This is important, because it makes the building of new patches very easy and instantaneous, and frankly with a beautiful interface laid before you, as we have here, why wouldn't you want to create your own sounds?

Cherry Audio have catered for all the usual plugin formats, but there is a particular enjoyment to be had by just opening the standalone version, and losing yourself in synth nostalgia. While the Elka-X will immediately sync-lock to your DAW, there is inclusion of an onboard tempo function, which in turn synchronises elements such as the sequencer, LFO and delay effects. You will also find onboard reverb and chorus, the latter being particularly classic and effective, and a calling card from the original.

Final output

Cherry Audio are attracting a serious reputation for creating highly usable and great sounding re-imagined versions of some of the most desired synths from our history. The Elka-X slides gracefully into that arena, with a depth of

sound that inspires creativity from the first note. Don't be fooled by its highly attractive price point; it's a bargain for sure, but with no sense of sonic compromise. If this doesn't shake up the market, you're not playing your saw waves low and loud enough! **cm**

Web cherryaudio.com



The standalone version is a particular joy, with easy zooming in and clear navigation

MIDI control

One of the elements which we particularly enjoyed with this plugin is its standalone operation, allowing you to get creative away from the DAW. With the Elka-X grabbing the majority of your computer's screen space, it's the closest thing you will get to a hardware experience in plugin form, at least until we have the complexity of touchscreen that we all yearn for.

Until that day, we can make do with the facility provided by Cherry Audio,

that allows the easy assignment of any of the GUI controls to MIDI hardware faders. This also extends to MIDI CC control from within the DAW, but it's nice to have the easy option to assign the filter cutoff to a hardware fader or pot. Of course, we don't all have large computer screens at our fingertips, so the Focus Mode will zoom right in on the area that you are working with, providing plenty of detail and fine control.

Alternatively

UVI Synthex 1.5
€79

Inspired by the Synthex and the FM-based Elka EK-44, UVI's homage appears here in a sampled form

XILS-lab Syn'X 2
\$169

Full multitimbral version of the synth with eight layers of lovely Elka-ness to play with

Verdict

For Beautiful reimagining of a classic
The GUI is a total pleasure to use
Complete MIDI control through real time or DAW
Nice enhancements over the original
It's a total bargain at this price!

Against We can't find any downsides!

The Elka-X stands head and shoulders above other similar products and feels very analogue. It's a total joy to use!



The beautifully crafted layout of the Synthex, zoomed in using Focus mode for finer detail

10/10



Apple MacBook Air M2 from £1249

Apple's latest laptop is the company's lightest and sleekest. It's also quiet, and could be the music production laptop we've all been waiting for

> Apple's MacBook Air M2 2022 is a machine that delivers the battery life, speakers, power and, importantly, the silence you need for both music production and listening. You'll be paying for it, of course, but the Air M2 is also one of the most elegant and refined pieces of Apple technology ever created. Quiet, powerful and so sleek, it'll handle your music production needs with no fuss or bother. And it looks amazing.

To Logic in no time

We admit it, hands down, unboxing an Apple product is one of the most joyous experiences

in life. It is such an 'event', though, that the initial unveiling almost always outshines the end result where you end up using your brand new and much costlier Apple (iPhone/iPad/laptop/desktop) in the same way you used your old one - inefficiently, with all the baggage and the same old apps. But that's perhaps not the case with the new MacBook Air M2 2022. Right from transferring your old data to it (a less than 50-minute task by Bluetooth) to making music and listening to the results, this feels - finally - like a new chapter of Apple use, and one that will drag your laptop music making to another level.

After a migration from our old M1 Mac Mini, we have Logic and Ableton Live up and running and playing old songs in no time. One or two downloads and a restart later and all of our plugins are there. And they are there fast. Sure, this isn't so much to do with the MacBook Air, per se - more an easy path created by Apple - but we feel it should be more hassle... just because it usually is.

Real-world use

At just 1.24kg, this is Apple's lightest machine and also their thinnest, just 11.3mm deep. You

The sound from the four speaker system is so much better than a device this size should be capable of

can hold it with two fingers and the all-new colours will have you showing off even more (we opted for the light gold Starlight, although the Midnight finish was also a tempter).

The sound emanating from its four speakers (which also support Spatial Audio) is so much better than a small form device like this should be capable of. You're not going to be using it for detailed mastering, granted, but it's almost good enough to mix with and very decent just for music listening. And for more detailed mixing and mastering, just plug in some decent headphones and you have the perfect lightweight mobile studio.

A pro price

The M2 MacBook Air is undoubtedly expensive, so much so that you have to compare it to Apple's latest 13-inch M2 MacBook Pro. Our test model Air M2 (24GB RAM and 1TB drive) costs £2149 - *exactly* the same as the same-spec'ed M2 MacBook Pro.

And if you go down the MacBook Pro route you also get some performance advantages, although these are not perhaps as big as you might expect. Our sister site *Tom's Guide* tested the M2 MacBook Air directly with the equivalent M2 MacBook Pro and found quite similar results with the Pro just nudging ahead on some tests. However, it's also a slightly thicker and weightier laptop with a tad smaller screen, not to mention an old design compared to the new, slicker Air. The Air also has a better 1080p FaceTime HD camera and screen resolution. All things considered, then, we'd rather opt for an M2 MacBook Air over a 13-inch M2 MacBook Pro.

So can we conclude that we'd choose the new M2 Air over any other laptop out there? Almost. There is just one other option to consider and that's the older M1 MacBook Air. It still packs a great punch and will give you almost as much



There's not a huge uplift for the M2 over the M1 chip but massive over the old Intel chips

M2 v M1 v Intel!

So how does the new M2 MacBook Air compare to an older M1 Mac? First we did some tests using the same Logic project on both. The M1 booted up and loaded the song in 12.26 seconds while the M2 did it in a significantly less 10.75 seconds. When we then bounced the same track to audio, there was much less in it with the M1 doing the job in 18.95 seconds and M2 creating the stereo file in 18.17 seconds.

We then turned to some more trusted tests and downloaded the Logic benchmark project from logicprohelp.

com. With this, you load up the project and then add tracks on until 'System Overload' is achieved. Our M1 got to 92 tracks whereas the Air M2 got to 100, so it's an 8% uplift for the M2 over the M1.

With the Ableton Live benchmark project the M1 scored a track count of 136 while the M2 scored 148 so again, an 8% performance uplift for the M2.

While this isn't a huge uplift, we then did the test with a much older 2017 iMac (with an Intel core i5). It struggled to get to 34 tracks so the new M range is at least three times as powerful!

power for quite a bit less cash. Ultimately, though, we think the M2 MacBook Air is beautiful, powerful and just about the best silent laptop you can buy for music production. After making music on laptops for more than 20 years, the Air M2 is finally the music production laptop we've been waiting for. Pricey, yes, but it's a powerful and very cool machine. **cm**

[Web apple.com](http://apple.com)

Alternatively

Apple MacBook Pro 14"
From £1899

Probably still king of the Mac laptops with huge potential for RAM and storage upgrades. You'll pay for it though...

Apple MacBook Air M1
From £999

Not quite as much power but a lot less cash outlay

Verdict

For Powerful and silent
Lightest and thinnest Apple laptop
Lovely screen and speakers
Looks as great as it feels

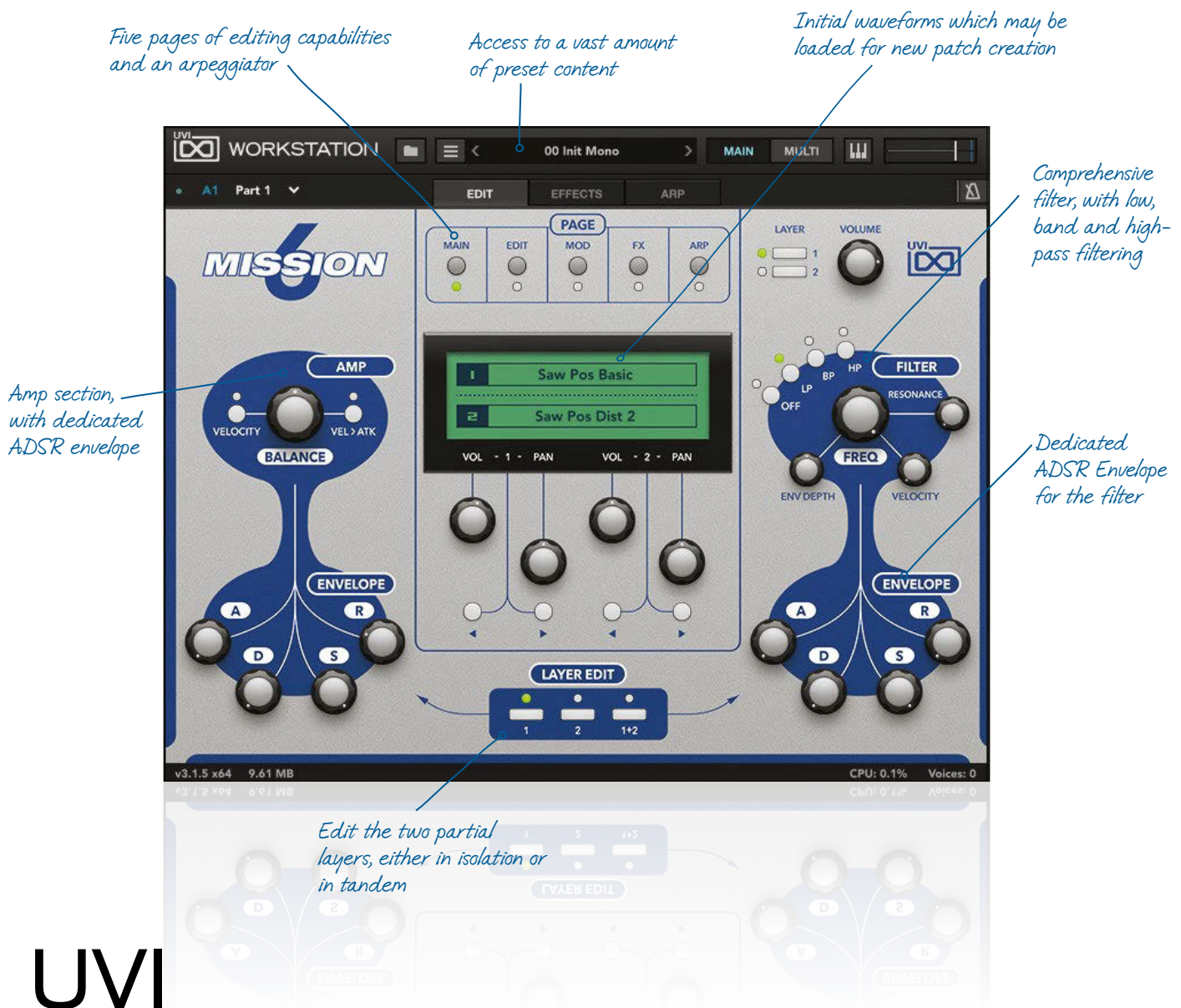
Against Not a huge step up from the M1 Air for audio
Expensive

Apple's M2 Air could well be the music production laptop you've been waiting for. It's fantastic but is an expensive machine



The Air M2 is Apple's lightest and thinnest laptop yet, weighing 1.24kg and measuring just 11.3mm deep

9/10



UVI Mission 6 €79 PC MAC

Inspired by a lesser known, but respected analogue classic, UVI's latest Mission visits the limits of Andromeda

> As analogue classics go, the Alesis Andromeda A6 is not the model that most cite as a favourite. Part of the reason for this could be that many original Andromedas have suffered component failure, placing them out of operative reach. But find one that works and you'll hear a huge-sounding analogue from the year 2000, when analogue wasn't really the flavour of the millennium!

T-minus and counting

Thankfully, while the price-tag of an original secondhand Andromeda remains high, UVI can

help you with another one of their superb re-enactments, providing the very spirit of the original analogue machine, through a vast number of samples.

Mission 6 resides within the usual UVI ecosphere, being operational through their freely available Workstation plugin, or for extended use via their Falcon synthesiser suite. For our money, the Workstation plugin presents the information in an incredibly concise manner, while being highly stable as a plugin. You certainly will not be missing out on the party by not using it through the Falcon software,

although you can take the editing capabilities far further, if that's an interest for you. You'll need a spare 12GB of disk space, which not only confirms the sampled nature of this library, but also underscores the 400 beautifully curated presets, to get you going.

This is not to say that you cannot perform deep editing, because the Mission 6 is laden with the usual UVI suspects. The main edit page draws graphical inspiration from the original machine, and, in many respects, provides a more simplistic and usable interface. One criticism often labelled at the original machine,

“Represents the very spirit of the original most admirably in an easy-to-use and immediate incarnation”

is that it was incredibly complicated to use, largely thanks to its comprehensive modulation capabilities, and an LCD display, which didn't always provide the strongest and clearest clues, while in edit mode.

Ignition sequence start

This library conforms entirely to the common UVI format, allowing the loading of up to two sampled sounds/waveforms to form a patch. The raw samples include absolute basics, like saws, squares and triangles, along with pulse-width modulated sources and distorted tones. There are also plenty of more colourful and programmed samples, perfect for creating more elaborate and lush textures. These are all beautifully categorised, making light work of finding something suitable. The 'Main' working page is also where you will find the filter settings, providing low, band and high pass iterations. These are unsurprisingly not quite the same deal as the Andromeda, in part due to the complexity of the filter section included with the original, but are perfectly functional, with four-stage envelopes to accompany both the amplifier and filter sections. Four other pages give considerable modulation, editing and effects capabilities, along with a comprehensive arpeggiated section.

Mission Pros and Cons

UVI's exemplary presentation of the Andromeda in this form provides a great sounding and production-ready alternative to the original. Many would convincingly argue that the strength of the Andromeda lay with its preset patching, with the ability to tweak at will. While the Mission 6 lacks certain elements, albeit

sometimes incredibly complicated ones, what it does offer is a very healthy facsimile, which is inspirational, ready to go, and sounds very fine indeed. Mission 6 represents the very spirit of the original most admirably, in an easy-to-use and immediate incarnation, and lest we forget, it is quite literally a fraction of the price! **cm**

Web www.UVI.net



Whether you love a preset or creating your own sounds, Mission 6 has you covered

Getting patched

We are very big fans of UVI here; they have a proven track record for creating interesting products, which are production ready, and good-to-go. Part of the strength in this remit is their curation of samples and presets, in a hierarchy which makes light work of the substantial content. If you like the idea of becoming inspired by presets alone, you will find plenty of basses, brass, leads, pads and polysynth sounds, all indigenous to the

Andromeda. If you prefer to get busy with editing, there is equally plenty of initial content, providing the perfect launchpad for sonic creation. Collated within the Basics category, you can begin with a mono sound source, right through to an initialised Unison of waves. That was always an Andromeda calling card, as the 32 analogue oscillators could be stacked to create the most almighty and super of saws! What's not to love about that?

Alternatively

LFO Audio - Andromeda A6 \$45

Packed with an original set of Andromeda patches, this is a high-quality sampled emulation

Spectrasonics - Omnisphere 2 £316

Includes numerous Hardware modes and a template for Andromeda simulation

Verdict

For Captures the Andromeda spirit
Plentiful supply of presets and samples
GUI styling is classy and reminiscent
Improved arpeggiator, over the original

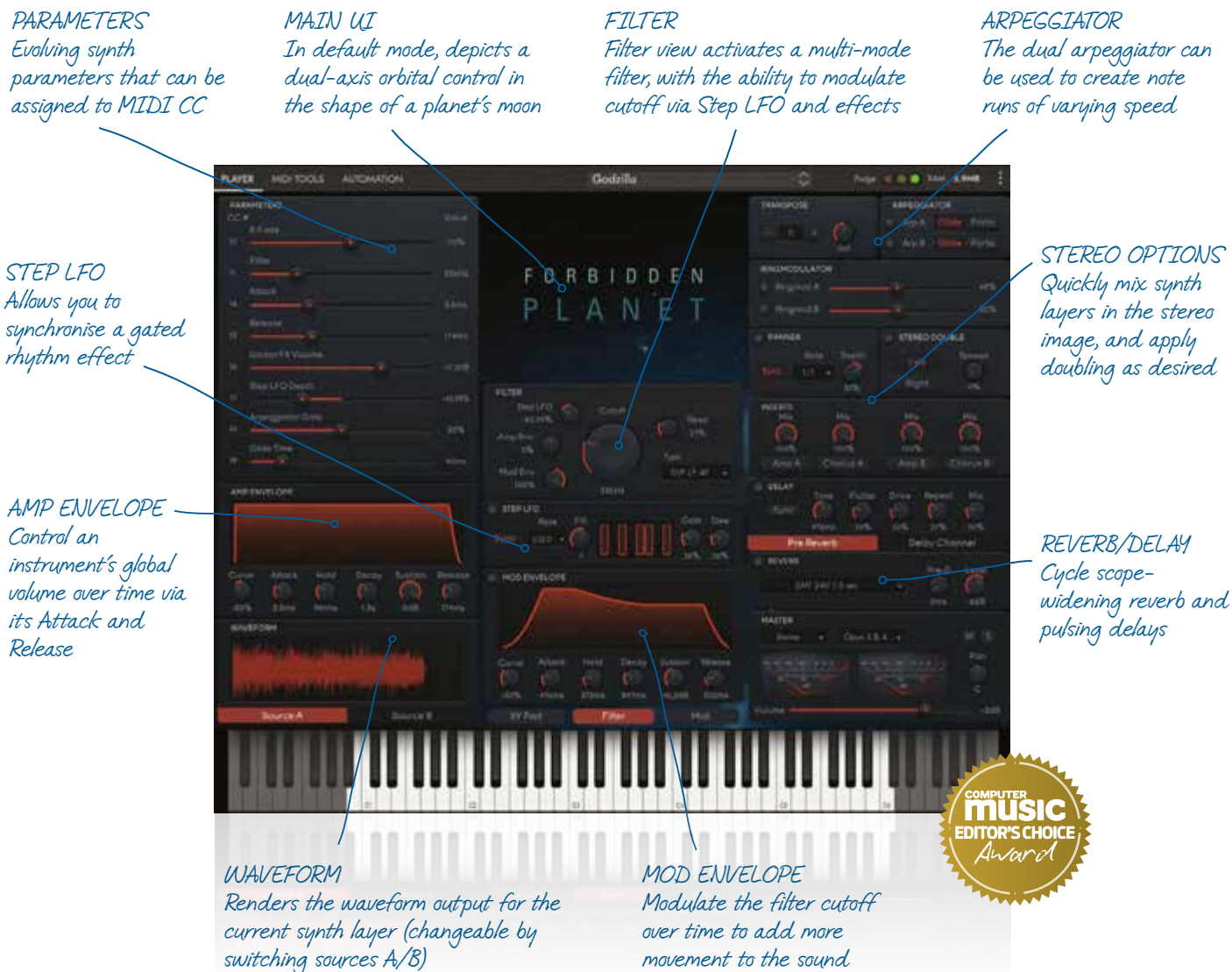
Against Not entirely identical sonically
Lacks several characterful elements, available with the original

As a sample library that provides an accurate interpretation of the original Andromeda, this is an excellent package, albeit one that lacks some of the sophistication of the original

9/10



The elegant styling of the Workstation instrument matches the original Andromeda interface



EastWest Forbidden Planet

£245 **PC** **MAC**

An expansive odyssey of evolving sci-fi synth sounds, these ever-morphing sonics will delight all Earth-based shapers of new frontiers...

> Widely known for their vibrant range of meticulously captured cinematic string libraries - particularly the elegant Hollywood Opus collection - EastWest Sounds' first bona fide synth collection is fittingly epic. With a name like 'Forbidden Planet', and a UI which underscores its futuristic niche, this dense assortment of sounds are squarely aimed at those who want to wrangle the types of pulsing, morphing electronic textures that permeate modern science fiction and fantasy.

Unlike traditionally genre-aligned packages, EastWest's innovative new engine allows for a

greater array of sonic control, with delicate morphing between multiple layers paramount to the engine. There's also a trove of finer-detail shaping abilities here, like the deep levels of modulation control, and a colourful arsenal of rhythmic options on hand. All in all, there's a whole new multiverse to discover.

Starship blooper

The fundamental concept for Forbidden Planet began when producers Doug Rogers and Nick Phoenix elected to deviate from the usual oscillator-leaning approach, and instead work

towards building a hybrid beast, melding sound layers from acoustic sources, orchestral instruments, choirs and a range of deftly curated sound effects. Harnessing EastWest's adept Opus engine, they realised a synth that draws on a rich well of instrumental texture.

Within Forbidden Planet are 645 of said mouth-watering patches and a detailed workstation for sculpting and contorting these forms into something entirely new.

Upon loading the software within EastWest's OPUS shell, and switching to the PLAY page, the first thing to notice is the central image of a

“Staggeringly assembled synths, exemplary control of movement, layer transitioning and more”

planetary body. This isn't just for aesthetic purposes. Instead, the planet - or rather its small moon - serves as an interactive XY pad, letting you crossfade swiftly between the patch's dual layers, or adjust filtering or any of the other assignable left-hand side parameters. Neat.

No man's synth

Forbidden Planet neatly locks in step with Opus' cleanly organised pages. On the Browse page, we see that the eight main folders - consisting of Bass, Drones, FX, Leads, Pads, Poly Synths and a stack of pulsing Arpeggiator-aimed ripples. One of the best things about traversing this deep well of sound options is a nifty auto-audition feature, playing a short motif with this currently hovered-over patch, this saves a lot of time.

It's clear that a large swathe of these patches are solid from the outset, and designed to be dense, multi-charactered tension and drama-builders. While many are ready-to-go, self-shifting themselves into being a swirling sound design canvas (particularly those in the FX and Drones category), it would be foolish to neglect the wealth of filter shaping control available.

Using the pop-up Filter section provides a swift way to capture and bottle those sweet spots, work out gated rhythms with the Step LFO option, as well as the tantalising invitation to apply an envelope to the filter cutoff, allowing the automation of its movement with each note. Results will vary, and that's exciting.

Forbidden Planet is nothing short of a sci-fi soundscape designer's playhouse; fully loaded with staggeringly assembled synths, exemplary control of movement, layer transitioning and more. A word of caution: during tests we regularly experienced lag when going too far

down multi-voice directing wormholes, so make sure your hardware is up to it. But that's not to stop us from declaring Forbidden Planet a brave new world of synth design. **cm**

Web www.soundsonline.com



Using the planet and moon as an X/Y pad keeps you locked in a sci-fi mindset



The arpeggiators can conjure waves of rhythm and momentum

Step on it

Forbidden Planet's twin arpeggiators can be used to craft delicate up/down ripples through the selected patch and when used in tandem can breathe new life into static sounds. With each arp corresponding to one of the patch's two sound layers, it's easy to maintain the character of the foundation patch, yet add more subtle rhythms and pulses by triggering a staccato or

legato pattern. Each arp has its own sequencer, so you can really go to town enhancing the interplay by muddying the sound, speed, octaves and direction. It's easy to build polyrhythms and have a basic, self-sufficient rhythm track operating within just one sound patch. Another way in which Forbidden Planet lets you carve the best out of this expansive sound forest.

Alternatively

Soundmorph Dust
cm293 » 8/10 » £120

With a motion-based approach, the wealth of pads, shifting-leads and more on offer here is astronomical

Omnisphere 2.8
cm220 » 10/10 » £410

The big beast of the sound design world, this is the synth-universe's Starship Enterprise

Verdict

For More than 600 dual-layered synth and FX instruments

Wide-ranging filter options and expansive envelope shaping

Simple arpeggiator function allows creation of polyrhythms and movement

Against Will swallow that RAM!

A dense star field of malleable textures, synths and ever-shifting drones and FX. All the space-faring sound you could need

9/10

MODEL PAGE

Select from 13 different drum kits to begin

CUSTOMISE PAGE

Switch up drum components and how they're built

PLAY STYLE PAGE

Control how your virtual drummer performs and hits the kit

ROOM PAGE

Cycle various convolution-generated environments to house your kit

MIXER PAGE

Adjust levels and effect certain drum elements to mix your kit



KIT SELECTION

Download other kits and cycle your currently owned kits

DRUM KIT IN USE

A rendering of the kit in use

GROOVE SELECTION

Quickly trigger a groove preset to demo your kit

GROOVES PAGE

Choose from a range of organised grooves and beats

MAPPING PAGE

Assign kit components to your MIDI keyboards/controller

IK Multimedia **MODO Drum 1.5** £250

With some of the most expansive tone-shaping control we've ever handled, IK have augmented an already unparalleled drum workstation

> Beats. Everyone needs them, everyone tackles them in their own way and it's widely agreed that when it comes to mixing, they're more often than not the most awkward thing to get right. IK Multimedia's MODO Drum aims at serving all needs via its holistic, genre-neutral approach to kit control. Though the emphasis here is clearly on giving you the sound of a live, in-the-room drum kit, the sheer level of tonal shaping, FX, groove-shaping and real-world nuance that you can control here, results in perhaps the only piece of beat-building software you'll ever need.

From the outset, IK offer a smooth, straightforward experience, a quality for which the company are well known. MODO Drum brings the same multi-page, visually entrancing approach as MODO Bass. V1.5 brings three more kits to the original's ten, all realised with IK's detailed physical modelling drum synthesis.

Kit bag

The kits on offer here range from the six-piece Rock Custom, aimed at the vest-sporting, long-haired, seasoned kit vet, to the genre-neutral new kit for v1.5, Silver, which could be used

across pop, country and rock. Then there's the cutting, razor sharp tones of the Djentleman, a kit directed at a particular niche of metal, but whose biting quality works well in a variety of other contexts. 1.5 also brings in other new kits not previously available: Brit Custom and a tasty Metal kit. Actual kit selection is swift, with an image of each kit selectable via the Model page, which shows a depiction of the kit in all its splendour. MODO Drum's array of seven core pages are neatly displayed at the top of the UI.

While the kits have been assembled to fulfil specific objectives, within the Customise page

“well beyond that seen elsewhere in the ‘virtual player’ domain... quite frankly the sculptural scope is astounding”

you can mix and match drum elements from other kits, and build your own Frankenstein kit to better suit your needs. That's not all though: each constituent part can have their virtual skins swapped, be retuned, have the buzz dialled up or down, and re-define the shell profile. This is all down to the mind-boggling synthesis technology that certainly trumps the conventional approach to capturing samples. This flexibility is further evidenced by the breathtaking effect of changing your virtual drum room via IK's deft use of convolution, and effect-soaking certain kit elements in the Mixer.

Playstation

While the kit's sound is highly malleable, MODO Drum is also loaded up with a range of playability options. Going well beyond what we've seen elsewhere in the 'virtual player' domain, MODO Drum's Play Style option allows for the precise choosing of sticks, exactly *where* on each drum element the sticks are hit, and just how accurate this digital drummer's impacts are. Quite frankly the sculptural scope is astounding. The Grooves section is the easiest way to hear the results of all of this in full flight, with a pyramid of pre-determined drum patterns. As with MODO Bass, these samples are super easy to slot into your project.

Using MODO Drum to build up a series of demos results in a rewarding experience, and while we find it very easy to get entirely comfortable with the surface level offerings of the library, there's a veritable ocean of possibility beneath the surface. While size might be an issue, thankfully you're able to download only those kits you need. While other drum libraries trade off on bringing you accurate,

playable recordings of premiere kits in world-class locations, IK instead hand the keys to you, with the player, room, kit and character entirely at your control. **cm**

Web www.ikmultimedia.com



Every drum component can be switched and re-tuned



The wealth of player and kit control is all down to modal synthesis

Simulation theory

Some of MODO Drum's most extraordinary abilities, such as the option of having infinite round robins, is thanks to the real-time modal synthesis technology used to create these virtual kits. Unlike traditional sample capture, this innovative tech mathematically models the physical parameters (dimensions, skin, materials, durability etc) and all the in-between variables including play style, stick-type etc and room vibration to swiftly produce what is, in effect, a

very real model of the kit within your CPU. You can affect it in real-time, without any processing lag or having to settle for approximations of what certain changes 'might' sound like. In effect, it's like tiny virtual engineers are shifting mics, swapping drum elements and more instantly within your hard drive. It's a technology that IK have been working on for 11 years, and the first version of MODO Drum, released back in 2019, marked IK's first commercial deployment of it.

Alternatively

Toontrack Superior Drummer 3
cm249 » 10/10 » £320

This powerhouse was previously our top pick for versatile kit-shaping and control

XLN Audio Addictive Drums 2
cm207 » 9/10 » £140

While a different approach to MODO, it's still a solid kit handler.

Verdict

For Unprecedented kit and beat editing via modal synthesis

Great playability/humanisation options

Simple UI and easy to use

Deep room shaping, kit-mixing scope

Against A real disk-space hogger!

Another win for IK, MODO Drum 1.5 excels at being a multi-layered drum sample library that goes above and beyond what was previously thought possible

9/10



Minimal Audio Morph EQ

\$49



Bored with your regular EQs? This new Minimal Audio EQ with its morphing design could be just what you need to spice things up

> Morph EQ (AU, VST, VST3, AAX) is a flexible EQ processor from Minimal Audio and as the name suggests it can be used for morphing effects, as well as more typical EQ duties. You get unlimited filter bands and seven filter types (high, low and band pass, high and low shelf peak and notch) with +/- 36dB gain where relevant. Main features also include series or parallel signal flow, optional gain dependent filter width, and an output limiter with both gentle saturation and punchy soft clip settings.

You have unlimited filter bands with independent channel assignment (stereo, left,

right, mid or sides), but there's also a whole bunch of very handy global controls (Shift, Pinch, Spread and Scale). Shift and Scale both change all frequencies or all gains collectively, and are particularly handy from a time-saving perspective. Pinch, meanwhile, expands or contracts the overall frequency spread of the bands and is certainly interesting from a creative viewpoint.

Overall though, our favourite here would be Spread. For any stereo filters this lets you gradually offset the filter frequencies between left and right channels. Spread has a more

marked outcome on more complex sounds, or where the filter curves are more dramatic (band pass for example). Nevertheless, we found that it was really great for creative changes to the stereo image.

Further features include frequency analyser display, context sensitive tooltips, global wet/dry mix, three gain scales, individual filter auditioning, input and output gain (-inf to +10dB) and undo/redo for filter changes. One thing that has not been included is individual band bypass, however we understand that this may be added in the future.

“We had great fun using Morph EQ to process basic white noise as well as long one-shot reverb tails”

Presets

Given its creative ambitions, it should come as no surprise that Morph EQ has plenty of presets showcasing its capabilities, and most of them include morphing pathways. Of the 100 or so presets, a few cover standard tasks (Tilt Shelf or Telephone Vocal). Thankfully, the vast majority of them are creative and grouped into four categories: Morphing, Abstract, Vowel and Filtering. And if you really don't know where to start, there's a preset randomise button, which picks a preset rather than randomising the current patch parameters.

Starting with the Morphing bank, presets such as Gyroscope and Low Swell deliver quite extreme changes once you move the Morph knob. Orbitz, as the name suggests, moves its four filters in a rotating circle from about 200Hz to 2kHz. Each preset delivers its own strange filtering effects as you move the Morph knob, and often you'll find a small section of the morphing path where the effect is just what you're after. This is ideal for creating special effects, and we had great fun using Morph EQ to process basic white noise as well as long one-shot reverb tails. What's more, a lot of these extreme effects can transform the stereo image with a tweak of the Spread parameter. Further fun can be had in the Abstract folder, which contains the most extreme effects, and in the Vowel folder, which has some great voice-influenced sounds.

Meanwhile, in the Filter category you'll find a mixture of traditional and innovative effects: Triple Highpass for example. It is, of course, completely possible to create complex animated EQ moves using DAW automation and

a regular EQ, but Morph EQ takes that concept and makes it easier and more fun to achieve, and we think you'll love this wonderfully creative EQ. **cm**

Web www.minimal.audio



Click on the headphones icon to activate the band solo audition feature



Morph EQ allows you to create individual complex morphing curves for each filter band

Morphing

The concept sounds simple enough, but how exactly do you set this up in Morph EQ? First of all, note that there is no onboard modulation. Instead a master Morph knob controls all active morph pathways. So if you want dynamic effects you need to automate this in your DAW.

Each EQ node (filter point) can be morphed and this is achieved using its halo. Click on a filter point and the halo will appear. Then drag from the halo to another point within the display to

create a target. Starting from your new target point you can then create a chain of further nodes that mark out the morphing pathway.

Connections between target points are initially straight lines, but you can use your cursor to drag curved lines. Pathways can be deleted using the right click/CTRL-click menu.

Morphing pathways can be added to as many filters as you like, which ultimately makes for some incredibly complex outcomes.

Alternatively

U-he Filterscape
€129

This excellent filter design includes eight morphable snapshots and onboard modulation

Obvious Filter
€59

Use the filter sequence and morph features to create excellent rhythmic filter sequences

Verdict

For Good choice of filter types
Flexible and simple morphing system
Global curve macro controls
Band-specific channel processing including mid and sides
Filter band auditioning

Against No individual bypass per filter

Morph EQ takes your regular EQ interface and injects it with some real time manipulation for awesome filtering effects

10/10



Best audio interfaces under £200

It's our budget studio special so it's time to round up the best audio interfaces that won't break the bank for recording into your Mac, PC and even your phone...

If you want to buy a great budget interface for less than £200, you might be quite surprised at the quality of the models you can get. We've got the best audio interfaces under £200 from big audio hitters including SSL, Audient and Focusrite in this buyer's guide. And pretty much all the interfaces in our roundup offer exceptional sonic quality considering their relatively low prices.

With a budget of £200 you can now also expect to get decent additional features as well as that great sound quality. Indeed most of the

interfaces in this buyer's guide go well beyond the very basic connectivity you get just by spending double digits. Those cheaper interfaces will offer you one or two inputs and outputs to allow you to record voice and instrument into your DAW and play the results out to some decent speakers. Up the budget to £200 as we have here and you can expect extras like decent software bundles, better input quality (for better recordings), and extra inputs to allow you to record more than one instrument or voice simultaneously.

We've listed all of the main specifications, like audio recording quality and the number of ins and outs, but we've also detailed some of the software bundle highlights as this could be an equally important factor to consider in your buying decision.

You can skip to the bottom if you want to know more about interface options and how we test audio interfaces, but before we get into the detail of each interface individually, let's break down some of the things to look out for when starting your search...

Buyer's Advice

Do you actually need an audio interface?

If you're a musician who wants to make great quality recordings and listen back to them on decent speakers, then you really need an audio interface. They allow you to record any audio into your computer or smart device. You can capture anything, from strumming guitars and your singing through to a complete band or orchestra. Once recorded, you can then mix that audio into a song in your DAW and hear the results back through pro-grade speakers.

How many inputs and outputs do I need?

When choosing the best audio interface for your studio, the first thing you need to work out is the number and type of inputs and outputs you need. If you only want to plug in one microphone or instrument at a time - if you're a solo producer who generates most of their sounds inside the computer, this is probably you - just one or two inputs will be plenty. If this is the case then most of the interfaces featured in this Best Audio Interface For Under £200 will suffice. However, if you want to record a live band, you'll need to think about more inputs. Multiple outputs can also be useful if you want to set up separate headphone mixes (if you're a DJ, for example) or send audio elsewhere for further processing.

What types of inputs and outputs do I need?

On most audio interfaces you'll typically find both XLR and 1/4-inch inputs, often combined into combo connectors so that you can plug mics, guitars, synths and the

like into the same input. Many interfaces also offer a phantom power option, which is required if you want to use certain mics.

Some audio interfaces also have MIDI I/O on them, which could save you from having to buy a separate interface for external MIDI gear. If you only intend to use a MIDI keyboard, though, remember that this could plug into one of your computer's other USB ports, so MIDI I/O might not be an essential requirement.

How to connect your audio interface

Most audio interfaces connect to your computer by USB or Thunderbolt or by using a Lightning adaptor with iOS devices. The cable required for connectivity usually ships with the interface but not always with Thunderbolt 3 and Lightning, so do check what you get in the box.

Most interfaces are class-compliant, so will work out of the box - just plug them in and start using them straight away. Some come with extra software that you'll need to access some of their more detailed functions and routing. Many, especially mobile interfaces, are bus-powered so you don't have to plug a mains power supply into them.

Specs always include the numbers of audio inputs (as XLR or 1/4-inch jack or a combination of the two) and audio outputs. Inputs indicate the number of instruments or microphones you can connect up to record simultaneously. Check the interface has a phantom power option if you want to connect up a condenser mic which requires external power. The number of

outputs refers to the number of connections available to your studio speakers or other hardware boxes, including outboard effects.

What is low-latency recording exactly?

You'll find that most contemporary audio interfaces offer a low-latency recording option, which means you can stay in time with your project when adding more tracks. Some interfaces also promise latency levels that are low enough to use effect plugins in 'real-time' on the input as you record, while others have their own DSP processing built in.

What should I be expecting to pay for an audio interface?

The best audio interface for you will at least partly come down to price. This buyers guide is for those with a budget of \$/£200 and as you can see, you get some great interfaces for that outlay. If your budget is less than \$/£100, we also recommend reading our guide focused specifically on the best budget audio interfaces if you have less to spend.

Interfaces are serious pieces of kit that should keep the audio signal quality high throughout the recording process, but you needn't pay serious money for them. If you are an in-the-box producer, you might only need one input at any one time to record, plus a couple of outputs to your speakers. Even a singer/guitarist can get away with just two inputs, and a decent 1 or 2-input/2-output audio interface only costs from around \$/£50 up to \$/£200. Add more inputs and better quality preamps on these - which will give you a better quality audio recording - and you could pay anything from \$/£200 to \$/£700 for a medium-sized interface capable of recording all of the outputs from a band, for example. Pro grade interfaces with fast connectivity, the ability to power software (see Universal Audio)

and digital inputs and outputs can tip into four figures - sometimes up to \$/£2,000 - but you might not need any or all of the extras they offer. Many interfaces support an array of digital ins and outs like ADAT and S/PDIF, for example, two digital standards you only need to take into consideration if you have other audio gear with these inputs and outputs included.

What are the most popular audio interface brands?

There are many companies making audio interfaces but some brands that score consistently well in our reviews in terms of build quality, features and value are Apogee, Audient, Focusrite, Native Instruments, Steinberg, SSL and Universal Audio.

How do we test audio interfaces on review?

Audio interfaces are essentially devices designed to record audio into your computer DAW, and play it back out. The key factors when testing them are how easily they do this and the level of audio quality they are capable of delivering while doing so.

Many audio interfaces are 'plug 'n' play' so will be picked up by your computer and DAW when you first connect them. Your DAW should then list the interface's physical inputs and outputs, often as selectable options on its input / output channels.

Sound quality is determined by an interface's A-D/D-A convertors, sample rates and frequencies quoted in their specs (24-bit/96kHz, for example).

We test for sound quality by recording several sources via the interface's mic and line inputs, and judging the playback quality against that expected from the specs. We also compare the same material recorded with our reference audio interfaces that we use on a daily basis.

Some audio interfaces come with extra bespoke software that lets you select input and output configurations and might also add other routing options or even effects. How easy this extra software is to use is also an important factor.

We also consider latency when testing interfaces. This is the time it takes for audio to go into and out of your computer DAW via the audio interface. If this is slow, the latency figure is high so can result in a delay between you playing a note and then hearing it. This is obviously not practical if you are recording some playing and attempting to be in time with your DAW playback.





Audient Evo 4 & 8 £89 to £144

CONNECTIVITY: USB 2.0 | **AUDIO RESOLUTION:** 24-bit/96kHz | **ANALOGUE INPUTS:** 2 x XLR-1/4" combo (mic/line); 4 x for EVO 8 | **ANALOGUE OUTPUTS:** 2 x 1/4" TRS, headphone (2 on EVO8) | **DIGITAL CONNECTIVITY:** None | **MIDI I/O:** No | **SOFTWARE BUNDLE HIGHLIGHTS:** Steinberg Cubase, Cubasis LE and Retrologue, GForce M-tron Select plus a course, Loopcloud subscription, effects and more

The compact Evo range was launched at the NAMM Show back in 2020 to much acclaim.

You'll find two combi mic/line inputs around the back of EVO 4, and one instrument level input at the front for connecting guitar or bass (which then overrides the first input around the back). The more expensive EVO 8 doubles the inputs to four.

Two speaker outs complete the connections and a central main dial controls the level of that output plus a number of other levels determined

largely by which buttons on the top of the panel you press, these being 1 and 2 (for the input levels), and output (bottom right) plus a final button that means the dial adjusts the mix between the input and DAW. Using the headphone socket means the main dial controls this level. EVO 8 allows two people to monitor with headphones.

The one-dial solution is beautifully implemented and designed to help make both EVO 4 and 8 clever, compact desktop solutions that sounds great...

audient.com



Verdict

For Great, clean sound
Single dial makes it simple to operate
You'll like the Monitor Mix solution
Sturdy build

Against No angled front

Two of the very best compact audio interfaces around

9/10



Audient iD4 MkII £127

CONNECTIVITY: USB 2.0 | **AUDIO RESOLUTION:** 24-bit/96kHz | **ANALOGUE INPUTS:** 2 | **ANALOGUE OUTPUTS:** 2 | **DIGITAL CONNECTIVITY:** None | **MIDI I/O:** No | **SOFTWARE BUNDLE HIGHLIGHTS:** Steinberg Cubase, Cubasis LE and Retrologue, GForce M-tron Select plus a course, Loopcloud subscription, effects and more

The iD4 MkII is, on the face of it, a simple two-input/two-output offering a mic preamp, complete with phantom power for using condenser mics. There's also an instrument level DI for plugging in your guitar or bass, plus a smart scroll wheel enabling you to tweak settings in your software. On top of this, there's a main output for your speakers and dual headphone outputs.

The whole thing is powered via USB-C and, with Apple's camera connection kit, it can also work with an iPhone/iPad. However, for us, the studio devilry is in the detail: Audient has really thought about everything with value and usability in mind, making what is a budget solution feel anything but inexpensive in use. The Audient iD4 MkII is one of the best USB audio interfaces we've tried and also features a very decent software bundle.

audient.com



Verdict

For Great value for money

Excellent preamp

Well thought-out

Against MIDI I/O would have been very welcome

High quality interface from the purveyor of pro studio consoles

10/10

Computer Music choice

The Presonus Studio 24c won out in our Budget Audio Interface buyers guide and is still one of the best low-priced options here. It offers superb sound quality and comes with a well-stocked bundle of software audio tools.

However, now we've upped the budget to £200, we can get some additional sonic clout and connectivity from some of the biggest names in music production. SSL makes arguably the best mixing desks used in studios the world over. Its SSL 2 interface offers some of the sonic quality from these desks for silly money.

Audient too has made some excellent studio desks and has similarly delivered some of their flavour in its interface range. Our favourite, though, is the EVO 8 which offers an amazing amount of connectivity for the price. Universal Audio has made some great audio gear over the years too and its Volt range delivers some of that expertise at a great price.

Finally, in what is a very crowded part of the interface market, Focusrite delivers some of the best connectivity with its Scarlett 4i4 3rd Gen, right at the top end of our budget range.





Solid State Logic SSL 2 £169

CONNECTIVITY: USB-C | **AUDIO RESOLUTION:** 24-bit/192kHz | **ANALOGUE INPUTS:** 2 | **ANALOGUE OUTPUTS:** 2 | **DIGITAL CONNECTIVITY:** None | **MIDI I/O:** Yes | **SOFTWARE BUNDLE HIGHLIGHTS:** SSL Production Pack software bundle which has a huge range of titles by SSL and others including Vocalstrip 2 & Drumstrip

The SSL 2 is the cheaper of two compact audio interfaces from console legends Solid State Logic. Both offer the forward and more aggressive sound from the company's 4000 E console as a switchable 'Legacy 4k' enhancement.

The 2 lacks a second headphone output and extra phono outs found on the 2+, so not much less if you are just wanting that legendary sound for your instrument recordings. Other than that you get a 2-in/2-out set-up, MIDI in/out and a +48v option to connect both dynamic and condenser mics.

SSL 2 delivers crystal clear recording with that subtle 4k enhancement should you wish. Its monitor output is right up

there with interfaces that cost twice as much, better in fact. It also features one of the best software bundles. Overall it's a cracking interface with that sprinkling of extra SSL dust.



The 'Solid State Logic' name and sound from a piece of gear costing '£180'? Somebody pinch us, this isn't happening...

solidstatelogic.com

Verdict

For Lovely build quality

Great sound

Optional SSL console sound

Against The 2+ offers quite a bit extra for not much outlay

A compact and sturdy interface delivering an expensive SSL sound for silly money

9/10



Universal Audio Volt 1&2 £105 & £144

CONNECTIVITY: USB-C | **AUDIO RESOLUTION:** 24-bit/192kHz | **ANALOGUE INPUTS:** 1/2 | **ANALOGUE OUTPUTS:** 2 | **DIGITAL CONNECTIVITY:** None | **MIDI I/O:** Yes | **SOFTWARE BUNDLE HIGHLIGHTS:** Marshall Plexi Classic Amplifier, Live 11 Lite, Melodyne Essential and Ampeg SVT-VR bass amp

Universal Audio used to focus on the high-end market with interfaces that boasted both a quality signal flow and also acted as hosts and accelerators for the company's very well regarded plugin range.

That changed with the Volt range, a set of four units that eschew the plugin hosting in favour of value and more standard features. The more expensive 176 and 276 fall just outside of our price cap but the Volt 1 & 2 offer most of what they deliver, with the exception of their extra 1176-style compression.

Both Volts 1 and 2 are plug-and-play USB-C interfaces that offer UA's excellent

preamps on their combi inputs, with one input available on the Volt 1 and two on the Volt 2. These offer a great vintage tube sound on your inputs, giving recordings a richness rarely heard in this price range.

The Volt interface range is a radical departure for UA, offering an affordable taste of the brand's key ingredients. They're incompatible with plugins from the UAD store but they absolutely deserve to shake up the budget interface market with a great design, a plug-and-play workflow and hard-to-beat audio conversion.

uaudio.com



Verdict

For VeUA quality at an affordable price. Intuitive with an easy to use, plug-and-play design
Great design

Against No scope for expansion beyond the limited I/O

Lovely hi-end sound from a pair of low-priced interfaces

9/10



Focusrite Scarlett 4i4 3rd Gen £188

CONNECTIVITY: USB-C | **AUDIO RESOLUTION:** 24-bit/192kHz | **ANALOGUE INPUTS:** 4 | **ANALOGUE OUTPUTS:** 4 | **DIGITAL CONNECTIVITY:** None | **MIDI I/O:** Yes | **SOFTWARE BUNDLE HIGHLIGHTS:** Ableton Live Lite, Focusrite Plugin Collective, Antares Hitmaker Expansion and more

Focusrite's Scarlett USB interfaces have traditionally combined excellent sonics and audio flexibility at affordable price points, and the third generation units keep up the good work.

All of the units in the range have been upgraded with improved preamps (up to 56dB gain), balanced connectivity throughout, and the inclusion of Focusrite's ISA transformer preamp emulation option (delivering Air - see below for more on this).

On the bus-powered Scarlett 4i4 you get two mic/line/instrument inputs with gain, two line-level TRS inputs and four TRS outputs.

The 4i4 supports Focusrite's Control application, which means that a number of settings can only be made in the software. The app also handles low-latency monitoring.

In practice the sonics are neutral and the drivers reliable. The Air option tilts the frequency response towards high frequencies, and this can be great for taming undesirable proximity or adding high frequency lift. It works particularly well on vocals.

With a decent software bundle included, this is a solid upgrade and a great, affordable audio interface...

focusrite.com



Verdict

For New, improved preamp design
'Air' transformer stage emulation
MIDI I/O is useful

Against Four combination inputs
would be great

A competitively-priced interface with plenty of connectivity

9/10



Native Instruments Complete Audio 2 £99

CONNECTIVITY: USB 2 | **AUDIO RESOLUTION:** 24-bit/192kHz | **ANALOGUE INPUTS:** 2 | **DIGITAL CONNECTIVITY:** None | **MIDI I/O:** No | **SOFTWARE BUNDLE HIGHLIGHTS:** Ableton Live 11 Lite, NI effects, Mompit Start, Maschine Essentials and Monark

Komplete Audio 2 has a two-input, two-output design with two identical mic/line/instrument inputs. Connections are on space-saving combi XLRs with individual selector switches to help select between line and instrument. 48V phantom power, in the meantime, is engaged globally, via a single switch.

In addition to the inputs, the front panel includes a hardware monitoring balance knob (Input/Host) and headphone output with independent control.

Main output level is controlled from a large output level knob on the top panel. Here you'll also find the input meters, alongside phantom and USB indicators. Round the back you've got the USB B connector, a pair of balanced outputs on TRS 1/4-

inch jacks and a Kensington Security slot.

Komplete Audio 2 makes our best audio interface list because in action its performance is as slick as its looks. Though the features are basic, it does its job admirably. And when you consider the excellent software bundle too, it's excellent value.

native-instruments.com

Verdict

For Super compact
Very slick and stylishly designed
Decent five-part input metering

Against No scaling on the controls

Compact and slick 2x2 audio interface at a competitive price

9/10



IK Multimedia iRig Pro Duo I/O £180

CONNECTIVITY: USB 2, Lightning, USB OTG | **AUDIO RESOLUTION:** 24-bit/48kHz | **ANALOGUE INPUTS:** 2 | **ANALOGUE OUTPUTS:** 2 | **DIGITAL CONNECTIVITY:** None | **MIDI I/O:** Yes | **SOFTWARE BUNDLE HIGHLIGHTS:** AmpliTube CS (both desktop and iOS versions), Steinberg Cubasis LE plus two choices of IK software

The follow-up to the original iRig Pro Duo, the I/O offers two analogue combo inputs so that you can connect and simultaneously record your favoured combination of instruments and mics.

These inputs come with updated Class-A preamps, adjustable gain and phantom power. There's MIDI I/O, too, along with two balanced 1/4-inch outputs and a headphone output.

You can engage the direct monitor switch for latency-free monitoring of the incoming signal, and the iRig Pro Duo I/O comes with a USB-C cable for easy compatibility with modern devices (Lightning and USB-A cables are supplied, too). There are new dedicated PC drivers as well, and it all comes in a package with a refreshed, rubberised finish.

The iRig Pro Duo I/O can be bus-powered or run on two AA batteries. It ships with a large bundle of software, which includes two bonus IK titles of your choice.

It's compatible with iOS, Android, PC and Mac, so it could be just the thing if you need to record on the move and in your studio.

ikmultimedia.com

Verdict

For Completely portable
Works with mobile devices
Record two channels simultaneously

Against There are better options if you don't need portability

One of the best compact audio interfaces – a portable powerhouse

9/10



PreSonus Studio 24c £124

CONNECTIVITY: USB-C | **AUDIO RESOLUTION:** 24-bit/192kHz | **ANALOGUE INPUTS:** 2 | **ANALOGUE OUTPUTS:** 2 | **DIGITAL CONNECTIVITY:** None | **MIDI I/O:** Yes | **SOFTWARE BUNDLE HIGHLIGHTS:** PreSonus Studio One Artist and Studio Magic Software Suite, Ableton® Live Lite

There are audio interfaces that aim to support specific musical disciplines like, for example, guitarists (check out our best guitar audio interfaces guide for more of that).

And then there are jack-of-all-trades, which try to do a bit of everything, from speech to music. The PreSonus Studio 24c is firmly in the latter camp, offering consistently exceptional quality regardless of what you're trying to record or produce.

We particularly like the included Universal Control software, which enables the interface to 'loop back' on itself virtually.

This provides great flexibility for routing audio between different applications without requiring extra cables, making it ideal for streamers and musicians alike. Build quality is solid, and the MIDI connectivity to the back of the unit is a great touch.

[presonus.com](https://www.presonus.com)



For MIDI I/O
Superb value for money

Against Not much to fault here

A good interface for streamers, and a great one for musicians

10/10



Arturia

MiniFuse 2 £119

CONNECTIVITY: USB-C | **AUDIO RESOLUTION:** 24-bit/192kHz | **ANALOGUE INPUTS:** 2 | **ANALOGUE OUTPUTS:** 2 | **DIGITAL CONNECTIVITY:** USB hub | **MIDI I/O:** Yes | **SOFTWARE BUNDLE HIGHLIGHTS:** Great list of titles including Arturia FX, Ableton Live Lite, Auto-Tune Unlimited and Native Instruments Guitar Rig 6 LE

MiniFuse is French company Arturia's compact interface range and we have the mid-sized MiniFuse 2 on test here. It has its own Control Centre software and also has one of the best bundles of software of all the interface here. You get access to Arturia titles (naturally) alongside Ableton Live Lite and Auto-Tune Unlimited.

The MiniFuse 2 sounds pretty good, with nice clean main outputs and plenty of volume from the headphones. The instrument inputs also sound great and it's good to see two identical mic/line/instrument inputs. But it's the overall functionality that wins through, with plenty of backlit buttons and illuminated controls so it's obvious what's going on.

MiniFuse 2 is a feature-rich device with extras that you don't always get at this price. Factor in the impressive software bundle, generous five-year warranty and a choice of colours and you have a pretty decent package for the money.

arturia.com

Verdict

For Compact with small footprint

Solid sonics

Extensive and useful software bundle

Against USB hub only suitable for low usage devices

Plenty of features, incredibly intuitive to use and with a good software bundle, plus it looks and sounds great

9/10





Steinberg UR22C £125

CONNECTIVITY: USB-C | **AUDIO RESOLUTION:** 32-bit/192kHz | **ANALOGUE INPUTS:** 2 | **ANALOGUE OUTPUTS:** 2 | **DIGITAL CONNECTIVITY:** None | **MIDI I/O:** Yes | **SOFTWARE BUNDLE HIGHLIGHTS:** Steinberg Plus includes Groove Agent SE, HALion Sonic SE, Anima and Retrologue instruments

Steinberg really pimped up its UR range of audio interfaces, introducing USB 3.0 models for PC, Mac and iOS. The UR22C, on test here is the most affordable of the bunch. It offers USB Type-C connectivity (or USB 3.1 Gen 1 SuperSpeed, to give it its official title) and operates at 32-bit/192kHz audio resolution. There's MIDI I/O, too, as well as DSP that provides zero-latency effects that can be used when monitoring. These can be accessed via the dspMixFx mixer.

Unsurprisingly, the UR22C is a 2-in/2-out audio interface. You get a couple of balanced Neutrik combo inputs, each of which sports a Yamaha D-PRE mic preamp, and two balanced line outputs.

With its rugged metal casing, the UR22C is the best audio interface for you if you want something that can be slung in a backpack without fear. It also includes a good bundle of software called Steinberg Plus which includes apps, sounds and loops.

steinberg.net

Verdict

For Built to last
Yamaha preamps
Built-in DSP processing

Against Requires another power source to work with iOS

A rugged 2-in/2-out audio interface with great Yamaha preamps and a good bundle of software

9/10



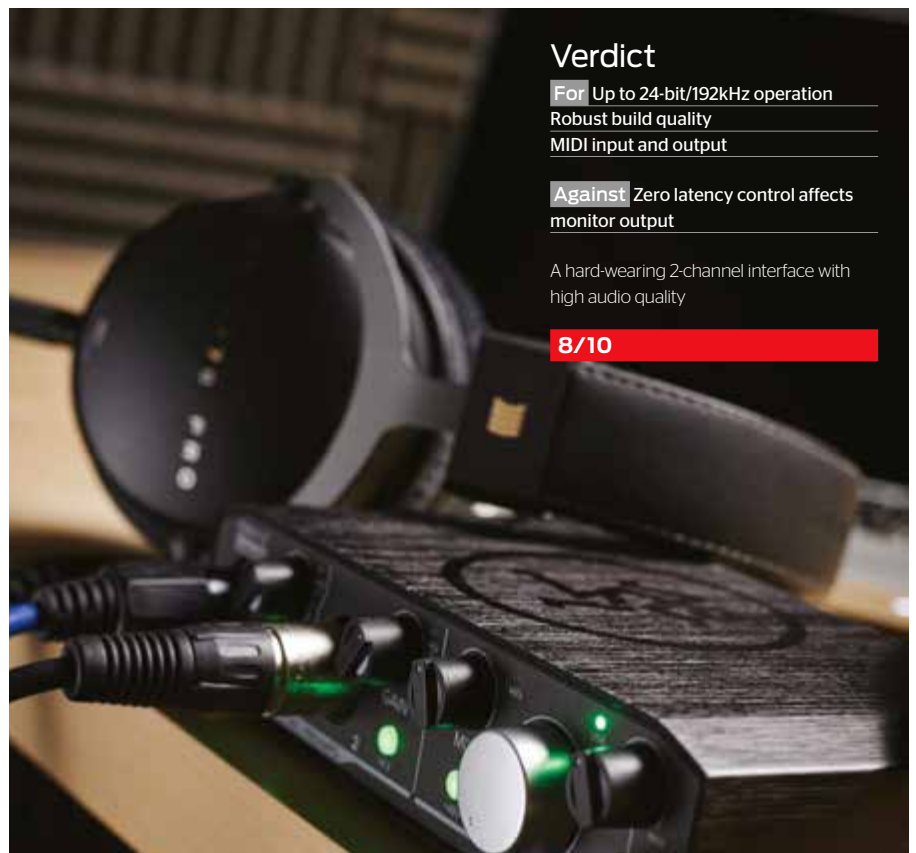
Mackie

Onyx Producer 2.2 £119

CONNECTIVITY: USB 2 | **AUDIO RESOLUTION:** 24-bit/192kHz | **ANALOGUE INPUTS:** 2 | **ANALOGUE OUTPUTS:** 2 | **DIGITAL CONNECTIVITY:** None | **MIDI I/O:** Yes | **SOFTWARE BUNDLE HIGHLIGHTS:** Traction Waveform OEM DAW and DAW Essentials plugin collection

With high-quality Onyx mic pres, balanced analogue connectivity and operation up to 24-bit/192kHz, the bus-powered Onyx Producer 2.2 audio interface is more than capable of getting clean signals in and out of your DAW. There are two identical mic/line inputs with combination XLR/jack connectors. Each has a manual green backlit switch to select a Hi Z instrument, and there's a global backlit switch for 48V phantom power.

Input signals can be monitored with zero latency using the Input/DAW Mix knob, and rounding off the front panel are a large Monitor level knob and headphone output with level knob. Round the back you'll find a pair of 1/4-inch jacks for the monitor output, and also a pair of MIDI connectors (In and Out), which is very handy. Throw in the robust metal case and you've got a compact workhorse device that should last for years. You also get a DAW, Traction, in the box and an Essentials plugin collection. cm.mackie.com



Verdict

For Up to 24-bit/192kHz operation
Robust build quality
MIDI input and output

Against Zero latency control affects monitor output

A hard-wearing 2-channel interface with high audio quality

8/10

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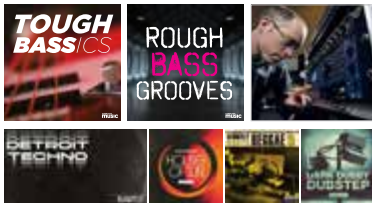
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AUDIFIED IRONVERB CM

This month we have a great new addition to the *Computer Music* Plugin Suite from long-running **cm** supporters, Audified

> **Linda IronVerb is an algorithmic reverb developed by Audified alongside musician, programmer and mixing/mastering engineer Martin Linda and thanks to Audified we now have our very own cm version, IronVerb CM (AU, AAX, VST3).**

A couple of years ago, Audified started to collaborate with engineers and creatives to help them realise their creative vision via new plugin designs. This program (called Wings) led to two plugins developed with Martin Linda: RockStack amp and cab simulator, and earlier this year Linda IronVerb. The latter is a flavour-filled

algorithmic reverb that's great for beefing up drums, adding colour to guitars and keys, and giving a distinctive space to vocals. The reverb includes a mixture of traditional and intriguing parameters. These include Ironize, which we'll look at in the walkthroughs. It also has six core algorithms, and with names such as Flutter, Dense and Steel, it's clear the plugin is designed for coloured spaces as well as more typical room and hall duties.

Much like our other Audified plugin, ToneSpot CM, the accessible parameters on IronVerb CM have been limited. Still, the

underlying processing engine is exactly the same as the full version. What's more, you have a selection of 20 categorised presets pulled from the full version, providing an array of excellent load-and-use reverb effects. In this tutorial we'll show how to grab your free copy of IronVerb CM, try the various controls and then highlight some of our favourite sounds.

And finally, if you like what you hear and want access to all the parameters, why not head over to www.audified.com where you can purchase the full version of Audified's Linda IronVerb from the source.

AUDIFIED MENU

Click on the Audified logo to access associated websites and the PDF manual

WINDOW SCALE

Select a suitable window size (from 50% to 200%)

IRONIZE

Observe the parameter setting for the key Ironize parameter

PARAMETERS

View the position of the main parameter knobs

BYPASS
Deactivate the plugin

COPY/PASTE
Click on the spanner to access the copy and paste option

PRESET
Select one of the 20 presets using the drop-down menu or navigation arrows

TYPE
See which category the preset is from

MODE
Check out which of the algorithms is being used in the preset

WET/DRY
Set the effect mix with the independent wet and dry levels



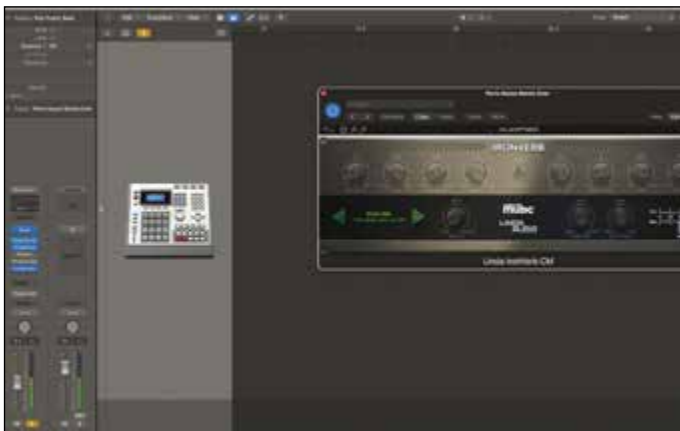
> Step by step 1. Installation



1 > As usual head to this issue on FileSilo (filesilo.co.uk/computermusic) and grab the instructions 'Your Free Plugin Instructions'. There is a link and special discount code. Audified will then email you a serial number and links to access the plugin installers.

2 > Download and run the installer for your platform. You'll find you need to enter your name and your personal serial number to install the plugin. Once you've done this you can choose which formats you want to install (AU, AAX, VST3).

> Step by step 2. Navigating plugin



1 > IronVerb CM is simplicity itself. Load an instance as either an auxiliary or insert. You'll find the Wet and Dry controls in the bottom right. Adjust these to match your chosen signal flow. Click the preset bar on the bottom left to load a preset from the drop-down list.

2 > The first thing to say is Audified has, tantalisingly, left all the controls from the full version visible and alas most of them you can't use. However, and this is handy, you can still see the parameter positions. Page through a few presets to see this in action.



3 > There are three important aspects to IronVerb CM's sound - the core algorithm (Mode), the Ironize effect and the size mode (Normal/Long). Page through the presets and you'll see these parameters changing - Mode is on the right of the preset display. Check out the preset Large Metal Box and you'll see it's set to Full Iron.

4 > Rounding things off in the top left of the plugin you can access various functional aspects including copy/paste, bypass and plugin window scaling. The Audified logo menu includes website links, update checker and also a link for the manual.

> Step by step 3. Clean reverbs



1 > IronVerb CM has its own tone and although algorithmic in design it's certainly not subtle. To that end, let's have a look at some of its sounds and what it's good for. As you change presets, keep an eye on the preset bar, where you'll see the usage category.

2 > Let's start with presets where Ironize is set to Clean and room mode Normal. Load up the preset Drum Medium Room. We've loaded it on an auxiliary so we can add it to various different drum sounds. This preset uses the Flutter mode.



3 > Adding this to a snare, the first thing you'll notice is that despite the 'medium' name, this reverb is quite short. It also has a minimal pre-delay and the effect is very dense. It's ideal for adding body to beats. Try it on beatbox kick and snare for that classic 80s sound.

4 > Now let's try something quite different. Swap the preset to Stab Chorus. This is a longer reverb, although still using the Normal setting, and if you look at the modulation section parameters in the bottom right, you can see quite a bit of modulation is applied.



5 > Grab a stabby synth sound - we're using the preset Vengeanz RL from Synapse Dune CM - and program up a stabby lead part. Now send some to the reverb using the auxiliary send. You don't need too much, but this creates a big, dense, anthemic sound. Solo the reverb return, and you'll hear the pitchy modulation in the tail.

6 > Sticking with this setup, let's try another similar preset - Medium Slapback. This is smaller and has slower modulation, although once again if you solo the return you can hear the pitchy effect. With our stabby synth, this is great for a tighter anthemic feel.

> Step by step 4. Clean and long



1 > Now let's look at Long room mode. Here the Size and Feedback capabilities are increased. We're going to start with a typical drum kit treatment. Load up Drum Hall on an auxiliary, set the Dry to 0% and Wet to 100% and grab some suitable beats to process.



2 > Sticking with drum kit sounds, now try a shorter sound: Snare Smash. This uses the Steel 2 mode and the Long setting, but with the Size set to Small. Try this once again on the close mic sounds of snare and, to some degree, kick.



3 > For close-miked snare and kicks, this reverb adds that classic, fat early reflection sound with a short to medium tail. Indeed, look at the Mode on the display and you'll see it's Flutter. Solo the auxiliary return and that flutter characteristic is pretty obvious.



4 > Despite the Long setting, you get a short and dense reverb with minimal pre delay or build up time. This is ideal for turning puny snares into fat rounded back beats. It's very coloured, with a particular sound, but the smoothness and quick tail-off sound fantastic.



5 > Next up, a proper long reverb, the suitably titled Pad Long. Load this preset on the auxiliary instance of IronVerb CM. We've also loaded up an instance of Dmitry Sches Thorn CM and the classic preset Ghost Keys, switching off all of its onboard effects.



6 > You only have to hit one note to get the message with this preset. The glorious shimmering decay goes on for a few seconds revealing the full glory of the Plate mode. And with modulation set quite low and slow, and no damping resonance the reverb tail is smooth and clean.

> Step by step 5. Ironize



1 > Now let's look at some presets that use IronVerb CM's Ironize parameter. Returning to the stabby synth sound we used before, which was the preset VengeanZ RL from Synapse Dune CM, we're now going to try the IronVerb CM preset Stab Iron.



2 > There are clearly similarities with the Stab Chorus sound, and once again the reverb helps create a big anthemic feel. However, you'll notice the Ironize control is on full, and the reverb is brighter and sounds considerably more edgy. If you're after big energetic dance riffs, this is the reverb to go for.



3 > Sticking with the lead synth riff, if you like the timbre of the Stab Iron preset, but think it's a bit too much, an alternative that also employs Full Iron, is Large Metal Box. Here the Hi-Pass is set higher, and the overall reverb blend is much less dense.



4 > You'll find only one vocal preset in IronVerb CM, and if you're looking for subtle invisible vocal space this isn't the ideal reverb anyway. Vocal Ballad is a ballsy plate reverb with some additional shimmer courtesy of the Ironize effect.



5 > Given the obvious colour this reverb adds, a little goes a long way, and once again using this on an auxiliary is the best plan, particularly for vocals. The reverb has a pretty obvious pre-delay (about 70ms) and the Hi-Pass setting keeps the low mids clean.



6 > Sticking with vocals, although there aren't other specific vocal presets, if you're after a big, expansive sound for a vocal then the Cathedral preset works well. This also uses the Plate mode and has quite a high Ironize setting along with heavy high frequency damping.

> Step by step 6. Ironize and long



1 > In our final walkthrough, let's look at some Ironize presets that also use the Long room mode. Our first is Synth Long Iron, and this time round we're loading this as an insert to create a kick boom effect. Once loaded, increase both the wet and dry mix faders.



2 > We've loaded a single kick to use as a one-shot source, and we just need to adjust the Wet and Dry faders to taste. You'll notice this reverb is big and bright, with the Ironize parameter adding an extra degree of diffusion to the high frequencies.



3 > Sticking with this setup, try other sounds. Hard sounds work particularly well, like snares, rims and claps. The reverb is bright, edgy and very long. It's not ideal for all effects but if you want something particularly lively and have space for a big effect it's ideal.



4 > From this massive effect we now move to something very different. Post Rock is once again an Ironize effect with the Long room mode, but it has a very different timbre. It's in the Guitar category so let's try it with various guitars.



5 > We've set it up on an auxiliary, and feeding just a little electric guitar reveals a long dark sound. The damping frequency is set below 2kHz and the high pass at around 400Hz. This creates a pretty narrow reverb band effect.



6 > Try this out on a variety of sounds. We think it sounds great for picked or muted electric guitar, adding a long dark tail that's both moody and characterful. Solo the return and you'll hear the medium rate modulation is also adding some pitch flavour. **cm**

Rough bass samples!

Let's roughen up your low end with two new packs of dirty bass samples and a classic pack of extreme bass sounds. Your bottom end will thank you, trust us



Tough Bassics

The first of our all-new gritty bass collections was honed by Cyclick Samples. Here's Robbie to tell us more about it...

"Roughness can also be expressed as a lack of smoothness, and the bass sounds created for this sample pack are proudly just this! Analogue amplification stages have been grossly overloaded and a variety of fuzzes and distortions employed to bring the grit, dirt and nastiness. To many ears this may be no bad thing; I loved every second of generating this sandpaper bass collection. Each of the five main bass setups has been used to create a set of loops across eight tempos and have been captured as a set of seven multisamples. The seventh multisample is a variant of the Teisco short scale bass and Mutron III. The latter's settings were regularly switched between bassline takes and the two best were noted for multisample creation, a low-pass filter and a band-pass filter setting."

There's more detail - including in depth information on the instrument setups and gear used - in Rob's PDF in the Samples download folder



SELECTED GEAR

Squier Precision bass (Classic Vibe 70s)

Epiphone Ripper bass

Musicman Stingray bass (1977)

Teisco short scale bass

Loads of pedals including Electro-Harmonix, Moog, Sandpit, Musitronics, Dreadbox and many more

Rough Bass Grooves

Keeping the theme rough and tough this issue, Oli Bell from Groove Criminals details his collection of all-new samples...

"It's our usual routine of mixing both hardware and software to bring you some roughed up low end tones. Hardware-wise we threw our Mother 32 through the rather fab Holy Island Rorschach which is a separate spluttering fuzz and multi mode filter circuit. Each is controlled on the axis with a joystick providing hands-on audio destruction. We ran our trusty Behringer TD-3 through three of our favourite pedals to rough things up: the bonkers Catalinbread Antichthon, Bugbrand Baby Bugcrusher (a sample reducer that adds a fantastic vocal edge to the acid basslines), and Glowfly Glitchwave567 which adds fuzz and a ring mod vibe.

"On the software side we ran the usual set of softsynths through both distortion and bit crushers for that filthy, crunchy sound but also rinsed the Audiothing Wires plugin, a recreation of a Soviet era wire recorder that brings some great ambient texture to whatever you feed it, and has been one of our go-to plugins for a while now."



SELECTED GEAR

Moog Mother 32

Korg Wavestate

Behringer TD-3

Holy Island Audio Rorschach

Catalinbread Antichthon

Bugbrand Baby Bugcrusher

Glowfly Glitchwave567

Logic Alchemy

XFer Serum

Audio Thing Wires

Audio Thing Crusher

NI Driver

Classic samples 1,758 extreme bass sounds



Give your tracks a solid bottom end with this classic collection of multisampled instruments, single-hits and low-rolling FX

Way back in issue 171 we gave away this huge collection of bass sounds. Here it is again for your bass delight. At the time, we said...

Choosing a sub-standard sound for your bassline is one of the biggest no-nos in music production, resulting in this most vital of sonic elements undermining rather than serving as the foundation for your track. With this huge collection of high-quality bass sounds on your hard drive, though, that's a situation that need never happen again! All of these samples are ready for use in your DAW, soft sampler or soundfont player.

Cyclclick

40 multisampled instruments

Cyclclick's selection of multisampled bass instruments have been created using a vast range of hardware. The bass guitar sets were made using the Epiphone Ripper and two early-issue Musicman Stingrays, which were recorded through a Focusrite ISA 828 mic preamp and given a gentle squeeze by the ART Pro VLA

optical compressor. The synth multis were made using Kurzweil, Jen and BassStation synths, as well as a variety of soft synths, all of which were recorded through outboard units and pedals so that as much processing as possible was applied in the analogue domain.

Groove Criminals

30 multisampled instruments

84 single-hit lucky dips

120 live basses

73 low-end effects

The Groove Criminals have used a wide variety of hardware to create this awesome selection of bass sounds, going as far as to unearth a 360 Systems professional MIDI bass module from the late 80s. Low-end synth effects were created with simple tone generators like the Korg Monotron, Gakken SX-150 and Bugbrand Weevil, run through multiple bass stompboxes and hardware filters as well as the Criminals' Moogerfooger rig. They also delved into their session tapes for some tasty drops of live bass.

1758 CLASSIC SAMPLES

EXTREME BASS SOUNDS

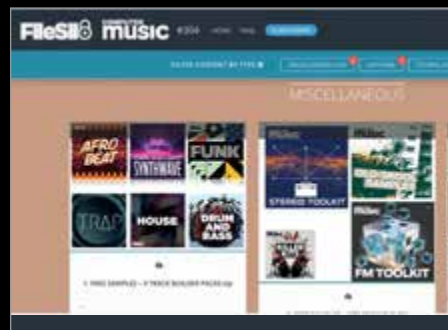
- 9** 360 Systems MIDI bass module multisampled basses
- 38** assorted multisampled basses
- 3** DX100 multisampled basses
- 3** K-Station multisampled basses
- 120** live bass bits
- 73** low-end FX
- 2** Moog multisampled basses
- 2** Pulse multisampled basses
- 6** Ripper multisampled basses
- 84** single-hit lucky dips
- 5** Stingray multisampled basses
- 2** Virus multisampled basses

> Step by step

How to get your free sample packs



1 > Now we are DVD-less, there are two ways to get your free samples. The first is, as ever, from FileSilo at filesilo.co.uk. Create an account there if you haven't already, and select *Computer Music* from the main page.



2 > Click this month's cover and answer the simple question related to a word in this issue (not the one shown above!). This will get you access to all of the samples and plugins to download directly.



3 > If FileSilo is running slowly, simply download the text file called "Speed issues with FileSilo". This has links to all of this issue's content via our WeTransfer page. These will be larger files but you should be able to download them faster using this method.

Loopmasters

Loopmasters **cm314** samples

This month's demo sample selection highlighting Loopmasters' latest releases

01 Renegade Audio Strictly Roots

Reggae Vol 5

02 Element One E1 Detroit Techno

03 Loopmasters House of Sun

04 Freaky Loops Drill Trap

05 Loopmasters Dark Dubby Dubstep

06 Industrial Strength BHK Samples -
Foley Drums




cm/video

This month's videos available from filesilo.co.uk/computermusic



YOUR FREE PLUGIN

How to download and use Audified's fantastic IronVerb CM

 [Read the full article from p88](#)



cm/experts

Our resident music production gurus walk you through their specialist field every month

SYNTH MASTERCLASS DIY LASER HARP!



 [Read the full article on p48](#)

PRODUCTION MORE FROM DRUMMER



 [Read the full article on p50](#)

Next issue



All the advice and software you need!

There's a huge dynamic range for you to explore and next month we're going to take you to every corner of it! Yes, we'll show you how to get the deepest basses, the most tearing leads, the hugest beats and most shimmering vocals. And all for free with the mighty *Computer Music Plugin Suite!*

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COMPUTER music

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