

**DVD  
INSIDE**

**John Foxx**

**EXCLUSIVE ACCESS** Up close with classic gear on his retro tour

**2011**

**NEW SAMPLES**

Fidget House, Dancehall Tech House **AND MORE**

**Starsmith**

**IN THE STUDIO** Get the studio secrets behind Ellie Goulding's *Lights*

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## SUBSCRIPTIONS

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NEXT ISSUE ON SALE... Tuesday, 28th October

Printed in the UK by BGP Ltd on behalf of Future.  
Distributed in the UK by Seymour Distribution Ltd,  
2 East Poultry Avenue, London EC1A 9PT. Tel: 0207 429 4000

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# Welcome

## Masterful Descisions



There are many important lessons in life. First comes walking and talking and the correct use of a bathroom. And soon after that there's the realisation that yes, your track does need mastering.

Sending your track into the world without it first enduring the mastering process is like heading into battle in smoking jacket and

slippers. You can do it, sure, but... Well, best not.

Which is why our *Master Like Abbey Road* feature on page 36 politely and insistently demands that you take heed. Which of the three paths to glory outlined in the feature you pick is up to you, but we think your music is going to sound better because of it.

Elsewhere in the issue we've a trio of famous names letting us into their studios, or access to their live rigs. There's the legend that is John Foxx giving you a guided tour of his all analogue kit on page 26. We've Electronica genius Trentemøller showing us his studio on page 62. And we've star producer Starsmith showing us the studio flat that's played host to hits by Ellie Goulding, Kylie and many more. Don't miss the video on the DVD.

Just room to point you at our Guitar Apps round-up on page 82 and – keeping it portable – we settle the touchable Vs Grid battle on page 102. What? Want even more? Then join us on Twitter @futuremusicmag. Cheers!

Daniel

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## EXPERT CONTRIBUTORS THIS MONTH...

**Robbie Stamp**  
producer, engineer



In between creating sweet Dancehall riddim (see page six) Robbie toyed with the Neve Portico II (page 88), swooned over the sE VR1 & VR2 (page 96) and kitted out his studio with Primacoustic's finest (page 104).

**Martin Delaney**  
artist, producer



Martin enters the strange nano-world of pocket *Guitar Apps* this month. See our round up of apps and interfaces on page 82. Hey Martin, is that a Marshall stack in your pocket or are you... Oh.

**Jono Buchanan**  
producer



Jono goes into battle with a fierce adversary this month. While *Abbey Road* has the legendary EMI TG12410 mastering desk, Jono has a copy of Logic. Find out what happened in our huge *Master Like Abbey Road* feature on page 36.



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Technique and technology for making music

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From **p36** We take a reader's track and master it with the best. Read all about it inside

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# FMDVD

**Issue 233 | November 2010 | UK Edition**

## INSIDE STORY



## DVD Editor Will Seelig's inside track on the making of *FM*'s DVD



This month's highlight was one that re-affirmed something that we here at FM often espouse, its not what gear you have but how well you use it. This was very much the case with this months In The Studio With Starsmith. This fast rising producer managed to co-write and produce all of Ellie Goulding's Album Lights from his bedroom with a modest amount of gear and not a 'classic vintage one-off rarity' in sight. Also getting Kylie into your flat really does prove that knowledge is the ultimate accessory.

**Enjoy the FM DVD?**  
Want to see your favourite artist on video? Then email us at [fmdvd@futurenet.co.uk](mailto:fmdvd@futurenet.co.uk)



## DVD HIGHLIGHTS

## Studiofile: Multiverse



FM gets inside access to one of Bristol's new studios that is the leading light in Dubstep production

# Mixing it up

The final episode from our Icon and D.Ramirez series addresses the nitty gritty of mixing the track

## On The Radar: John Foxx Live Right



**Get a full stage tour of all of the analogue gear behind this live re-creation of classic tracks**

## From the Vaults: Fidget House

**740** The complete set of fidget house kits and instruments

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## SAMPLESTAR - MAINROOM ANTHEMS



**"Hot on the heels of the award-winning Deep Tech Sessions, SampleStar unleashes**

**Mainroom Anthems, 660+MB of bigroom beats, Swedish-tinged synthlines, deep bass, hands-in-the-air transitions plus 100s of FX beds, vocal glitches, drum hits and more."**

**RIEMANN KOLLEKTION**  
- RIEMANN KOLLEKTION 6



**“Florian Meindl’s  
Riemann Kollektion  
returns with a  
vengeance in its latest**

Tech-House sample outing featuring 400+MB of pulsing 4x4 beats, tanalising tops, spacey percussion, lush synthetics, pulsating bass and one shots featuring sounds from its guest producer. mainroom techno

## HY2ROGEN - TECH-HOUSE SONGSTARTERS



**"Techy, tracky, infective and incessant, Hy2rogen's latest offering may be his best**

yet: serving up 30 song-starting folders of tech-house beats, grooves, nu-perc workouts, basslines, vocal glitchouts, music hooks and more.."

## SOUNDS TO SAMPLE - DEEP HOUSE BUNDLE



"Huge bundle pack of 940 late-night Rhodes, smokey stabs, dusty lo-fi progressions.

organic melodics, slinky kick-free tops and minimal percussive grooves, packing in the best-selling Deep House Synths & Stabs 1 & 2 and Deeper House Tops & Melodics - plus bonus new material."

## Sample Techniques

Each month, our sample creators work tirelessly to bring you original content for use in your music. As always, they go that extra step to make sure that the samples are both unique and useable...



## Pedal Splits

"Most effects pedals are restricted to single inputs and outputs, but on occasion you find a model that gives separate outputs, be they stereo or direct/effect splits. With the effect off this provides a buffered splitter allowing you to drive parallel stompbox chains (and everyone is going parallel-mad these days), though the original intention allows for more subtle blending of effects. Don't just let that direct/dry output jack go to waste – plug something in and mix the two chains together as it'll always sound better than a dull old serial effects chain. With more than one dual-output pedal the potential routing options quickly multiply into some truly inspiring setups – only the noisefloor can hold you back!"



LOAD IT UP NOW!

© Gavin Roberts



#### GEAR USED



**Digital Dancehall Groove Criminals** use: Digital Drum machines

"In keeping with this months digital dancehall theme we dug into the stores here at GCHQ for some sample based drum-boxes. Bit of a case of the good, bad and ugly but each has it's own take on that often maligned digital crispness and punch."



**Digital Dancehall Cyclick Samples** use: Korg CMP-1 Compressor.

"Not a common model, though it's rarity is not necessarily a claim to quality! That said this chunk of '80s stompbx has a fair old bite on it and can add some punchy mid presence to guitars, synths and loops alike. Gotta be cheap by now too."

#### THE MAKING OF YOUR UNIQUE FM SAMPLES...

# Digital Dancehall

Recreating the hi-tech Dancehall sound of the '80s

**T**his month's samples is a tag-team affair with both Cyclick Samples and the Groove Criminals working on the same theme. Digital Dancehall is the change in sound from the reggae and dub roots thanks to the new drum machines and synths of the 1980s.

"The three drums kits (in three tempos: 80, 85 and 90bpm) are spun into a variety of loops as well as broken down into hits and patched into Kontakt instruments," says Cyclick Samples. "There are four bass instruments in loop form as well as

multisample/Kontakt 2. Each tempo kit also has a selection of chop loops featuring the classic reggae/dub piano chop lathered up in spring reverb and tape echo. These were all recorded through a parallel arrangement of Mutron III+ filter next to an EH Poly Phase and Doctor Q envelope follower. These were both fed into the WEM Copicat tape echo, while the final dose of spring reverb comes from a couple of convolutions stacked up."

**Digital Beats**  
The drum loops have been created in

the digital realm and then given a few treatments (comb-filtering, reamping, distortion/bit-reduction, etc.) to give a modern mashed-up slant to the loops, as well as analog versions which beef up the sounds in a different, slightly more organic way. This involved sending the drums out as four channels (usually kick, snare/claps/toms, hi-hats, echo send) and processing each channel with outboard units (EQs, valve preamps for distortion/thickening, gates, compressors/limiters) as well as effects pedals"

1,000 samples



# Filter

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PSL attendees learn the art of the MPC from Akai's experts



Get hands-on. Korg's Wavedrum was just one of the wealth of products ready to play



## Highlights this issue...

**Minimoog Voyager XL**  
**10** We travel to the States to get hands-on with the 'mazing new Minimoog.

**NI Traktor S4**  
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**On The Radar**  
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Mics, speakers, synths, you name it. All racked up and ready for testing



PSL: Your chance to put every Moogerfooger through its paces



Dave Spoon rocks the lecture theatre at Producer Sessions Live

# Producer Sessions Live: It's A Smash Hit!

*Future Music* and *Computer Music* magazine's hi-tech music making event brings the house down

**N**o one got hurt and nothing caught fire: aka the mark of any successful gig and a status enjoyed by our very first *Producer Sessions Live* event that took place over September 25th and 26th 2010.

If you were there, thanks for coming and great to see you! If not, what happened?

*Producer Sessions Live* allowed music-makers to meet the great and good from the world of music production and get hands-on with the latest and greatest gear. And the two days of tutorials, gear demos and essential advice for upcoming producers were lapped up by show goers and industry alike.

With gear from the hottest manufacturers lined up over five floors there was no shortage of excitement. Attractions included Moog's Voyager and Taurus shaking the building, likewise Nord's Wave and Propellerheads Record 1.5 and Reason 5 demos were always jammed. The chance to check out the full range of Genelec monitors and take listening tests with the Focal line up in the studio were not to be missed. On the second floor, Avid and M-Audio showed off their Axiom kit and – of course – Pro Tools, while sE and Sontronics allowed punters to get up close and personal with their mics. Meanwhile, on the top floor, Korg and Roland showed off their complete 2010 ranges while Akai gave

beat-making lessons on MPC and APC. And that's just scratching the surface of the gear goodness on offer.

The real highlight of the show however, was our line-up of top producers who showed how their hits were made in a series of intimate lectures in the first-floor theatre.

Appearing live were Freemasons, Danny Byrd, Dave Spoon, Sharooz, Nu-Tone, James Hockley of Chicane, Tommy D, Steve Mac and Alex Blanco. The subjects covered ranged from recreating samples to dodge any legal worries (Nu-Tone) to insanely complex and thick parallel distortion and compression (Freemasons) to a track-by-track breakdown of the latest singles (Sharooz) and everything in between.

All the sessions were packed and the Q&As afterward – with attendees queuing up to ask questions and press CDs into hands – were superb.

James Wiltshire of Freemasons summed it up with "It was bloody brilliant. We didn't leave until we got kicked out! Great selection of gear and people." While *FM* reader Dan Owusu-Ankomah gave it the thumbs up with "Seeing these professionals breakdown real tracks they had made completely changed how I thought about music production. Can't wait for *Producer Sessions Live 2011!*"

## WANT TO KNOW MORE?

Head to [producersessionslive.com](http://producersessionslive.com) for all the details. And follow FutureMusicMag on Twitter for the first word on the next event!



## The Concept

Chief Moog Engineer Cyril Lance says that the XL was first envisioned in early 2010: "Over the years there were people that thought a ribbon controller would be really cool. But it was also a question of what would make it more useful in terms of taking advantage of the CV architecture. Also, a lot of people said they never really used the CV ins on the back panel because they're kind of 'out of sight, out of mind'. Part of the inspiration was to create a Voyager that was an open analogue controller for sound sculpting and to have the instrument really encourage you to create sounds that are an extension of the initial architecture. It wasn't just a question of adding this feature or that feature, it all came together for me as an instrument."



## He Ain't Heavy...

While there might have been some initial concern about the Voyager XL weighing in at nearly 21kg, the engineers took the line of thinking that studio-based artists would probably be the most likely candidates to own one and that it was still quite a bit lighter than other 'portable' stage keyboards. Ookay...



# Voyager XL Hands-On

We travel to Moog HQ to get hands-on with the synth that extends the legacy of the Minimoog. Literally.

**A**utumn is just beginning to break over Asheville, North Carolina as we arrive at the Moog Music headquarters. The reason for the trip, the upcoming 40th anniversary of the Minimoog and a new update fresh off the production line, exclusively being powered up just for us.

Moog is one of only two electronic instrument manufacturers in existence that can point to a legacy that extends back to the 1960s. Truly a cause for celebration and what could be better than a fresh take on their most successful and legendary piece of kit – the Minimoog Model D released back in 1971?

Enter the Minimoog Voyager XL, a super-sized version of the Voyager first released back in 2002. The XL not

only carries on the wood-cased tradition of the first Mini, but also draws from the patch cable heritage of the monster modulators that keyboard warlocks such as Keith Emerson used to weave their Prog magic. Those who have long loved that rich analogue Moog sound and relish the chance to sculpt it in, as many ways possible are the target audience. And considering the Voyager's growth spurt – reviving the Minimoog's lineage – that pool is getting ever larger as more and more folk create studio space for that special occasion statement synth.

## The ins and outs

After our eyes got past the added keys, we were immediately drawn to the patch panel, which is truly the

primary thrust of this latest incarnation. Users can now access much of the instrument's features via an elaborate array of CV (Control Voltage) connection points. With a little thought and experimentation, we could combine multiple waveforms, plug them into the four-input mixer and create inventive modulation variations. Want to have the Voyager's touchpad internally connected to the filter cutoff and then use the patchbay to connect it to the LFO rate? No problem.

Now if you'd already thought that you could replicate a good bit of this functionality by marrying an original Voyager to Moog's CP-251 Control Processor and a VX-351 Voyager CV Expander, you wouldn't be far wrong. But since the people at Moog were





#### Specs

61-Note Velocity Sensitive Keyboard with After-Pressure  
500mm ribbon Controller with Pitch and Gate CV Outputs  
X, Y, A Touch Surface Controller  
10 Control Voltage Inputs  
4 Gate Inputs  
External Audio Input  
Effects Loop Insert  
2 Active Attenuators  
4-Input CV Mixer  
Lag Processor (with adjustable rise and fall time constants from one millisecond to one second)  
Additional MIDI-syncable LFO  
3 Four-Way Mults  
2 Modulation Busses  
Weight:  
20.4 kg

## New Moog Headquarters

Moog Music is not only expanding its product line. In 2010, they also announced that they'd be acquiring four abandoned buildings on the edge of

downtown Asheville, North Carolina. After renovations on the 1920's era structures are completed, the plans also include a permanent performance

space where Moog-friendly bands can play in front of small audiences. And anyone who happens to wander by the display windows!



receiving feedback that their customers just didn't find those scenarios terribly convenient, they felt there was a strong argument to – effectively – place all that gear and convenience into a single chassis.

### Patch perfect

This is not to imply that the new Voyager XL's patch panel is a completely manifest interface. Even with all those options that the XL isn't equipped with a filter resonance input. The Moog folks assure us that even without an explicit input the flexibility of the Voyager's mod bus will allow you to plug any CV into it and select the mod bus to go to resonance. And since there are two mod busses available you can do this and still have another available to

access any of the other front panel controls. We tried it. It works.

And if all that weren't alluring enough, Moog have also revived the ribbon controller for the XL with outputs available as CV-Out (-5V to +5V) and Gate-Out (OV to +5V). Since the unit also includes two attenuator channels, the output of the ribbon controller can even be modulated with the attenuator Amount and Offset knobs. Plus with the three Mults banks you can output it to many things at the same time.

Don't miss the first review – synthgods willing – exclusively in *Future Music* next month!

#### WANT TO KNOW MORE?

The Minimog Voyager XL is priced around £3,200. Check specs at [moogmusic.com](http://moogmusic.com)

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# Traktor S4 Hands-on

NI pay us a visit with their next generation Traktor controller

**N**ative Instruments took a trip to the *FM* offices to give us a tour of the new S4 prior to its on sale date of November

**1st. The first thing that strikes you**

about the unit is the size and weight. With the flightcase (which doubles up as a handy stand for your laptop), the package is weighty and if you had to carry it around for more than a few minutes, you'd know about it. Out of the case though, it's light without feeling cheap and has a similar finish to Maschine and the X1.

## Connect S4

As the soundcard is built in, the only other thing you need is your laptop. The S4 can operate over USB power, with reduced brightness but plug in the power lead and it's impressive, with an almost overwhelming amount of control and lighting. As expected due to Native's previous controller options, despite the huge array of options in front of you, you quickly get to grips with the S4 – we found ourselves comfortably loading tracks, cueing, looping and effecting within ten minutes.

In the centre you'll find the three-band EQ controls as well as the DJM-800 style one-knob

filter. The sampling and looping section of the S4 is definitely the most intriguing but will take a little longer to get used to. Each deck has four 'samplers' – loop up a section, press Play in one of the Sampler Decks and the loop is saved for replay later. If you add the cue point possibilities introduced in Traktor Pro (and easily triggerable from the S4), there really is a lot on-the-fly remixing and editing possibilities. It will be interesting to see how well implemented these functions are – read our full review next month to get the lowdown.

## Wheels in motion

When the S4 was announced, NI were keen to point out the detail of the jog wheels, with 1,000 counts per revolution and a high-quality touch-sensitive rubber plate. In use, they feel incredibly solid and responsive. They're a bit smaller than we expected so it should be interesting to see how scratch DJs feel about them. [native-instruments.com](http://native-instruments.com)

## WANT TO KNOW MORE?

We'll be diving much deeper in to the S4 in the next issue of *FM* but first impressions are positive. There's a lot to look at so don't miss it – on sale November 25th.



## Pro Tools Goes Native

A new PCIe system from Avid has Pro Tools running without the TDM DSP capabilities, but with the added benefits of third-party DAW support on Core Audio and ASIO drivers. Yes, that means you can run Logic, Cubase and other DAWs. The

PCIe card supports up to 192 tracks of audio, and you can reach 64 channels of I/O using HD I/O, HD OMNI and HD MADI. There's support for both Windows 7 and OS X 10.6 or higher and backwards compatibility for older Pro Tools

interfaces. At £2,510 for the PCIe card and £5,750 for the top-flight HD I/O 16x16, it's not cheap, but it does make Pro Tools more flexible to a new market. [avid.com](http://avid.com)



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## Allen & Heath Xone:DB4

A mixer with so many features, it's bound to effect you

**C**laiming it's the most technologically advanced product A&H have ever made, the new Xone:DB4 is a mixer like no other on the market. As well as the usual analogue ins and outs of a standard DJ mixer there's also a high quality 24-bit/96kHz, multi-channel, USB 2.0 soundcard on board. Now you can hook up your laptop for both replay and recording from any audio software with up to four stereo sends and four stereo returns. The internal effects are based around a quad FX core DSP system with effects built around time-dependent parameters. All are latency free and are sync'd to the BPM. The really unique

thing though is the DB4's flexible input matrix, where any audio source can be selected on all or individual channels. So, you can parallel process the same audio source using a different channel and fade between the processed and unprocessed signals. Alongside Pioneer's DJM-2000 it seems a new generation of advanced live 'remix' mixers are emerging. We look forward to getting both mild and wild with the DB4 soon. [xone.co.uk](http://xone.co.uk)

### WANT TO KNOW MORE?

The Xone:DB4 will be getting the full review treatment soon. Next issue on sale November 25th.

## Vestax Pad-One



Vestax have introduced their own portable MIDI controller. Based on a USB bus-powered system with 12 pads that are also backlit with LEDs, the most impressive spec of the Pad-One is the solid aluminium body which Vestax claim will never crack. With DJ-style functions such as a roll button that constantly transmits MIDI data from a pad, it's clear Vestax have put a lot of thought into the Pad One and are looking to create a sturdy start to a new portable line. Price is TBC, but expect it to be a few quid above the plastic competitors. [vestax.com](http://vestax.com)



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## Brand New Brainworx

Brainworx aim for all the punch without the squash

It's no secret that *FM* are massive fans of the existing range of plugs from the Brainworx boffins. So as you can imagine, it was with great big smiles that we discovered this new addition to their range. The bx\_XL is a low latency mastering Mid/Side limiter that separates your tracks into its separate mono and stereo parts and separates the mono section into high and low frequency bands allowing for even more accurate mastering limiting. Limiting the three separate signals this way should help increase level without the distortion artefacts and squashy sound of the

usual stereo brick-wall limiter. Plus, a final fourth limiter on the output helps control the total master level output of the plug. Inside the bx\_XL there's also a three-band 'psycho-acoustic' loudness maximiser which offers four automatable settings with copy and paste functionality. Head over to the website to grab a demo. [brainworx-music.de](http://brainworx-music.de)

### WANT TO KNOW MORE?

Brainworx's bx\_XL is currently in public beta so get testing – we'll have a review of the full version next issue. *FM234* on sale November 25th.

## Akai MPK Mini

After Korg's success with their range of micro controllers, Akai were the first to jump onboard when they launched their alternative, which boasted a 'real' keybed, instead of the Nano's slightly awkward buttons. Now, Akai have delivered a portable solution that includes a board, MPC-style pads and some rotary controls, plus, a shift function allows these controls to have dual functionality. It's all bus-powered with a tidy mobile-phone style mini-USB port and looks set to retail for around £70. [akaipro.com](http://akaipro.com)



## Avid Following

A nice little refresh to the existing range and a couple of additions to the Avid family have arrived. First up is the third generation of the Mbox, available in three different I/O flavours – Mbox Pro, Mbox and the pocket-sized Mbox Mini. Next up is the second generation of the M-Audio MobilePre which is a refreshed entry-level interface. The new Oxygen 88-key controller is quite a beast with hammer action keys and DirectLink technology for easy assignments. Plus, there are nifty track up and down buttons making moving around your DAW a bit easier. These are available now and we'll be bagging all for review ASAP. [avid.com](http://avid.com)



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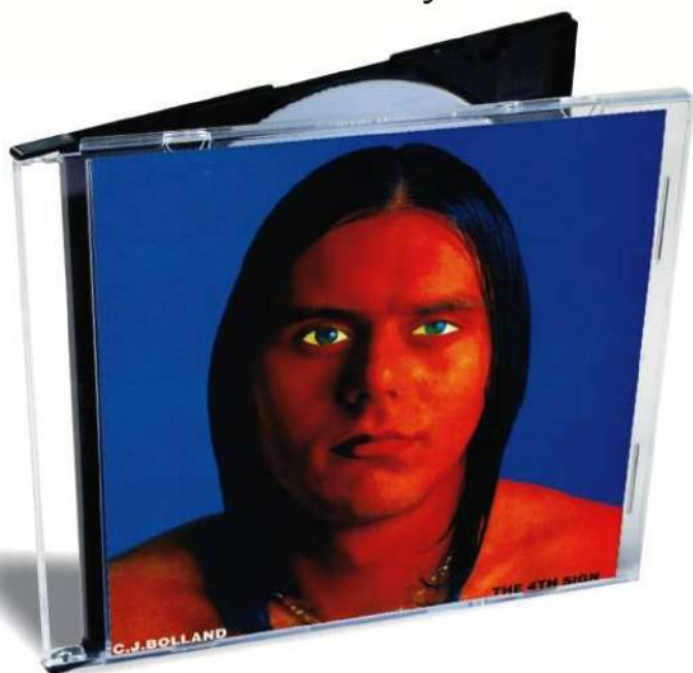
THE  
CLASSIC  
ALBUM

# CJ Bolland

## The 4th Sign

R&S, 1992

**Roy Spencer** dusts off a Techno classic made with a £15,000 keyboard and influenced Richie Hawtin and Adam Beyer



**T**here's an old Belgian proverb that says: It's no use waiting for your ship to come in unless you've sent one out. Wise words indeed. Heeded, it seems, by a young CJ Bolland.

At the ripe age of 16, the fledgling Techno producer began making demo tapes in his bedroom. One of these early forays landed on the desk of Renaat Vandepapeliere, the 'R' in the legendary Belgian record label, R&S. Noted for spotting

talent, Renaat invited Bolland to his studios in Ghent, flung him the keys and said 'you're living here now.'

"I was like 'wow!' It was full of stuff that I could have never afforded, or even imagined to afford," says Bolland. "He was like, 'here's the key, man. Make some music.' So I set up there and stayed living there for the next two or three years." Beaver away, Bolland crafted the *Ravesignal EP* trilogy for R&S and explored the further

reaches of his beloved Techno. Then it came time to attempt an album. It would prove a productive time for experimentation and feeding off influences from home and abroad.

"I was very inspired by what was coming out of the UK with stuff like Aphex Twin and just really Funky people," says Bolland. "I was also inspired by what was going on over here too, with the Industrial sound and bands like Front 242 and the Electronic Body Music scene that was really vibrant. So I combined the sounds of what was going on over here with the Funk and groove of the London, or UK, sound. It was just a case of trying everything out to see what I could make."

He made a beautiful noise. Brave at times, and aimed at the ears and the feet in equal measures. A far cry from the pounding beats he'd been known for.

"Before that I'd been making bigger, Ravey tunes, and this was different. It was Techy, Funky...in a sense, within the Techno world, an eclectic album. I didn't know if people would like it, as it wasn't just straight, big. I was exploring new fields that hadn't been done before."

Today it's heralded as a landmark album within Techno, and besides selling units, it pushed the genre for generations to come.

"It sold about 700,000 copies," says Bolland. "That's back in the day, man. You're lucky if you do 700 downloads now [laughs]."

"I don't know how influential this album was. That's not for me to say. But I've had great compliments from people who came after like Adam Beyer and Richie Hawtin, who have told me they were inspired by it, and it's the reason they did this or that, or whatever. It's great to have made an album that inspired people."

Today CJ Bolland admits that he's out of the Techno scene for now, as his main focus is producing Belgian Rock Gods, dEUS, and collaborating with their singer, Tom Barman as Magnus.

"The dEUS album will be finished on the third of December," he says. "Then we're finishing off the new Magnus album. We just recorded a track with Editors' front man Tom Smith. It's a very Poppy '80s Electro thing."

From March dEUS will start a six-month tour, and the first Magnus single will be out at the start of

summer, followed by the album. "Damn! I'm still as busy as I was at 16!" Looks like that ship came in.

## Track by track with CJ Bolland

### Mantra

"I came up with the bassline first, and liked it, but thought I could make it better. So I added an extra sound that copied it. I also wanted it to sound nice so I added the chords. Then they sounded too cheesy, so I gated them."

"Then I said to Cisco [Ferreira – co-producer on the track], 'I'm going to go over to the back of the room and stand on my record box and just dance. And when I stop dancing, it's wrong.' So that's what we did until we'd sorted every last bit."

"When we'd finished the album I remember thinking it may have all sounded too dark, and I didn't know if people would 'get it'. Mantra, along with Camargue, was one of the tunes that was not so dark and evil [laughs]. So we thought it would be best to open up with this mood and take people into the darker stuff."

### Nightbreed

"Talking of darker stuff [laughs]. This track was inspired by [UK Techno pioneer] Dave Angel. In the early days, Renaat [Vandepapeliere], one of the R&S label bosses, brought him over to see if we could do anything together or just get along, which we did instantly."

"He introduced me to stuff like [Detroit Techno collective] Underground Resistance and the really Funky sound that he came from, and I just really loved it. I came from Industrial music and Acid House or whatever, then I was suddenly introduced to the really, really Funky side of Techno."

"That was the main inspiration for *Nightbreed*. I used to love what they did to their kick drums in this music. Ours in Belgium were normally straight four to the floor beats, but theirs seemed to bounce around a lot more. And their hi-hat patterns were just all over the place, and I really got into that sound instantly as soon as I heard it."

### Thrust

"A mate of mine from a record shop in Antwerp had some extra money to



## LIKE IT? TRY THESE...



### Chris & Cosey Heartbeat

Ex-Throbbing Gristle members explore experimental Techno and Industrial noises in the early '80s. CJ approves.

**ADD THESE TO YOUR PLAYLIST:**

**Bust Stop; Heartbeat**



### Dave Angel Classics

A round up of the UK Techno Don's early work. Including material from his R&S days. A Voyage into the Tech Funk Bolland loves.

**ADD THESE TO YOUR PLAYLIST:**

**Bounce Back; Brothers**

**From The Deep**



### Mills, Hood and Banks Underground Resistance

Straight outta Detroit, these Techno Public Enemies pushed the tempos that tickled CJ's taste buds.

**ADD THESE TO YOUR PLAYLIST:**

**Orbit; Predator**



### Front 242 Front By Front

Pioneering Belgian Industrial outfit that set the template for Electronic Body Music that Bolland worked from.

**ADD THESE TO YOUR PLAYLIST:**

**First In / First Out; Headhunter**



### Plaid Mbuki Mvuki

Ex-Black Doggers continued to make the kind of listenable Techno on this 1991 release that CJ considered to be as valid as its dancefloor cousin.

**ADD THESE TO YOUR PLAYLIST:**

**Mbuki Mvuki; Slice of Cheese**

## In The Studio with...CJ Bolland

"The R&S studios were in a wood in Ghent, Belgium. It was creepy and spooky. I was given the key and just lived there.

"The first day I walked in there was a big Allen & Heath 32-track desk, an E-mu Emulator III, a Juno-60, a 106, the Alpha Juno, some really old machines. I just jumped on them like, 'what's this big white thing? It's an Oberheim four voice. Wow! What's that do?' Instantly we were faced with synchronisation problems, because only a few of these machines had MIDI capabilities. We had to be pretty creative to sync things up. It was pretty much just trial and error.

"I was running an Atari ST with Cubase, and before that I was running Pro 24 before Cubase even existed. I used to programme one of my drum machines to trigger outputs with, stuff like my Korg MS-20, things like that. We used to do absurd stuff to get sequencing done. I was well happy



when Cubase came around. The gear was expensive, man. The E-mu Emulator III cost a million Belgian Francs! Which back then was about £15-20,000. That's a lot now! But it gave the album its sound. Mainly because no one else had one, except people like Depeche Mode.

"Everyone else was sampling on the Akai S1000, and the Akai didn't have

filters. I had this sweet range of analogue filters on my Emulator, which were all programmable. And there were loads of parameters I could use.

"Like, I could put velocity on to sample stuff, and do stuff other people couldn't do, so that gave me a little bit of an edge of course. And I loved using all those tools, and that definitely made all the difference."

invest in something, so I suggested he set up a record label. I told him I had loads of guys sending me tapes that weren't suitable for R&S, but were really good. Pretty hard, straightforward shit. So he got behind it. He called it Bonzai Records. It was big Ravey, Belgian sounding stuff.

"I set him a studio up and invited the guys whose tracks I'd been sent down and showed them how to work all the new gear. Thrust came out of me demonstrating how the equipment worked for them. I just started programming for them, like

Cosey [previously of Industrial band, Throbbing Gristle], Chris Carter generally. The '70s and '80s UK Electro scene.

"Basically, that's what the whole album is about. It's just me looking at all the people I love who make great stuff and me wanting to make great stuff like that, too. *Aquadrive* was inspired by that

"These tracks are about the battle between light and darkness. Totally. My whole life is about that contrast. Is it early Trance? I wasn't trying to be [laughs]. A lot of people say that about *Mantra*. Trance has

good a programmer I was already, and just seeing how much shit I could stick in one track [laughs].

"I like telling stories with tracks as well. And that goes against the grain of Dance tunes. Dance music works better on the dancefloor if you generally stick to one thing, and have a couple of breakdowns and bring it back in. But with tracks like *Pendulum*, they were made a bit more to be listened to.

"I always thought Techno had two sides to it. It was very good for dancing of course, but it was always good to just listen to if it was made

well. People like Plaid and Black Dog were doing exactly that. I was very into that. I would dance to that, but a lot of people would just listen to it at

home or wherever. That's the vibe of this track."

# These tracks are about the battle between light and darkness. My whole life is about that contrast

'you want big beats? Do it like this'. I tweaked it, added distortion and explained how you got these sounds. When I'd finished demonstrating it I thought, 'hey, this track's not bad,' and took it away and finished it and made it into a full track. That became *Thrust*."

### Aquadrive

"This is dark and electronic. This was very much inspired by Chris &

become an almost dirty word for me, as it became a very cheesy style very quickly. Back then it was OK. I like my chords and I like my melodies as much as the next guy, but I like it to be Funky as well. Also, I like to use new sounds, and for them not to be the same over and over again."

### Pendulum

"Right. This track was an ego trip. Pretty much me just showing off how

### Spring Yard

"This one was made straight for the dancefloor. Before I put anything together for this album I knew I wanted to make one track that would get people on the floor. I fucking wanted to see them bouncing.

"I had a good little breakbeat, a nice loop that I tweaked all the bass



out of, and filtered it to make it the little groove in the record. Then to make it jump, I added some synth with the Juno and added distortion to it. I just built up the lick, the little bouncy thing [mimes it] 'dud-dung-da-dun-da-din...'

"I was messing with some faster tempos on this album. That was inspired by what was coming out the UK at the time. Things were much slower over here in Belgium. We were just crossing over from Nu-Beat to House music. Nu-Beat was like 110bpm – that's like the chillout room tempo for me. So, Dave Angel was introducing me to all of this faster, Funky UK stuff, and that was all up in the 140's and I really liked that. So I split the difference a bit and kept it somewhere around 130-140bpm."

### Camargue

"This is a spin off from *Nightbreed*. It's got the same drums. After I finished *Nightbreed* I came up with the main sound of this one. It's basically two chord samples off an old Hammond organ that we had in the studio at the time.

"There was this really nice feature on the Emulator III called

### Vantage Point Studios

"My studio now is Vantage Point in Antwerp. It's a big studio with a big recording area, as I'm producing bands now – mainly the Belgian Rock band dEUS. The lead singer Tom Barman and me also have a project called Magnus, which is Electronic stuff with more song structures and guests.

"In the studio I used to use the Sony DMX-100 desk, but now I mainly use

Pro Tools D-Command remote control, as I do most of the stuff internally, then mix on the outboard gear we've got. We've got plenty of racks like SSL equalisers and compressors, Neve EQs and compressors, and a whole bunch of other outboard EQs.

"We used to mix through one desk, now we can mix through five desks at once. You can just root anything to

anywhere. Instead of buying the one desk you can buy certain strips of certain classics you want to hear the sound of, the rest you do internally.

"I've still got loads of vintage gear. I got an old Korg PolySix kicking about, the Alpha Juno, the 106, the Juno-60, Memory Moog, the Oberheim OB-8. 303s, 909s...just loads. Pretty much everything from Roland.

"If you want to produce today don't use what everybody else does. And forget sidechain compression, you don't need it. There are plenty of really cool soft synths that sound like the genuine article, like the ARP 2600 emulator from Arturia or NI's Pro-53, which does the old Prophet-5.

"You're better off using clones of the old machines as opposed to using stuff like Massive and Reaktor, which are very much the new school sounds. A lot of people seem to be stuck on them. It makes everyone sound the same."



to do something with this sound right away, I used elements of the *Nightbreed* track. We just muted everything bar the drums on the desk and ran this new melody over the top of it, and 'cause it sounded so nice, I kept it."

some mad samples of bleeps and blobs, but pitched down four or five octaves. It just came out sounding insane. We both liked it so it came together. It's often not as romantic or far-fetched as people think.

"We do spend time

experimenting, but creative shit just happens. If it's something you wanna hear, something will fall into place that sounds just that little bit

weirder, and if you like it, use it. Simple as that, really."

### Jungle Man

"This was another lesson in the Bonzai recording studios. Basically, it was a demo of how to use the Roland 909 drum machine that ended up becoming a full tune.

"On most of the record, I didn't program off the drum machine itself, I used to run it from MIDI off of my

Atari ST, and program the patterns in Cubase, then copy and paste the individual patterns and edit them in the Atari, so it was easier to make arrangements. There's definitely something to be said for programming in the actual 909 machine itself, it just has a feel to it, obviously – the machine was built for it. It's almost impossible to emulate when you program it on anything else. Again, I was teaching the people to use it. They never touched it again, but I thought I'd show them anyway. It was like, 'look how easy it is to make a groove. Now pass me that Yamaha TX81Z and add some distortion...' and away it went.

"Instantly it's funky 'cause the beat's funky. That was one of those dream tracks that was made in about an hour. I wish it was still like that now [laughs]." **FM**

### WANT TO KNOW MORE?

For all the latest info on CJ's current projects, upcoming releases and tour dates, visit [cjbolland.com](http://cjbolland.com)

It was like, 'look how easy it is to make a groove. Now pass me that TX81Z and add distortion'

Transmulate, I think. It did something insane, but it took ages to do. It was one of those things that when you'd done it you had to nip out for something to eat while it processed. It just said 'processing...' on the screen for 45 minutes or so. It would morph two sounds together – it was great.

"I had a sample of my sister going 'haaaa' and morphed it into the organ chords. Because I wanted

### Inside Out

"That was a collaboration with another friend of mine, Kris Vanderheyden, who worked with me on my next album, *The Analogue Theatre*, when I signed to FFRR for Pete Tong. I met him in a nightclub in Ghent as he was big at the time under the name Insider. We always said that we should do something together in the studio, so we did. Again this is all Emulator III, and

### NEED TO KNOW

#### Five essential facts about...

#### CJ Bolland and The 4th Sign

**1** "Everyone at R&S were mates. Joey Beltram and Robert Leiner used to stay at my house and mum would make spaghetti."

**2** "People say Camargue was early Trance. I say Techno. I hope nobody claims Thrust invented Gabba!"

**3** "The best way to get your creative juices flowing when in the studio? Beer!"

**4** "I'm on Beatport all day if I've got a gig on. But I miss old records shops with their 'human shit-filters'."

**5** "After the album blew up I was turning down 80% of gigs as I couldn't be in two places."



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### WEBSITE

[multiverse-music.com](http://multiverse-music.com)

**W**ho would have thought that lurking in one of Bristol's swankiest areas, is a studio built for the deepest bass and some the most futuristic forms of Techno and Dubstep?

Home of Technonic, plus labels such as Caravan, Vertical Sound and Kapsize, Multiverse's studio is the beating heart behind some of the biggest tracks in Dubstep and is a regular venue for the mixdown of Multiverse's own artists such as Joker, Pinch, Ginz and more. In fact, the studio was set up to mainly accommodate the production and final mix duties of Multiverse's huge artist roster, plus their label releases, publishing and licensing duties.

### Dubstep believin'

The space is a professional affair with a fully treated room specifically designed for monitoring the deep bass of Dubstep, Techno and Dub. We were lucky enough to be shown around by Ginz himself, the

self-confessed studio nerd at Multiverse and the man who takes care of most of the mixdown and engineering duties. "We were lucky to find this location after we decided to move out of my old attic space", Ginz explained, "We got in touch with Roger D'Arcy who runs Recording Architecture and he helped design the build for the studio. We were also lucky because the people we're leasing the building from are interior designers and helped build it for us."

With the meteoric rise of Dubstep the owners of Multiverse themselves have seen their own solo careers blossom with Pinch and Ginz becoming major players in the scene and Multiverse becoming the go-to production parlour for Dubstep producers. "This past year has been really busy, especially with Joker's career really taking off. That's been huge for us because we run his label and he'll come and do final mixes here and we've worked together on some tracks" explained Ginz. Although it's a very busy studio,



### Candles

"These are LED candles that are remote control and very important. [laughs]"

### Neve 1073 DPA

"This is basically just the preamp part of a 1073 and it gets used not just mics but for running things out of the computer, patching some of the hardware synths through it and such."



#### Avantone MixCube

"We use these for referencing against the ATC's which can be often quite a sobering experience. I ignore how snares sound though as for some reason they make snares sound really loud."

#### Korg MS-20

"This is one of the few things I've had for a long while and have never had to get fixed."

#### TL Audio EQ2

"This is nicely valve sounding but still clean enough to use on loads of stuff."

#### Focusrite LiquidMix

"This was really buggy when it came out but now it's solid and I use it a lot."

#### Tascam DM24

"This doesn't really get used for mixing but it does allow me to route things around as I need and control the speaker levels."

#### INTRODUCING...



**James Ginzburg**  
Co-owner/Producer



## ON THE DVD

1



### Studio Tour

Head Engineer Ginz gives you a tour of Multiverse's gear goodies in this exclusive video.

2



### Mixing & Mastering

Ginz takes you through a mixdown of Guido's *Chordback* and shows you exactly how to mix big bass for the club.

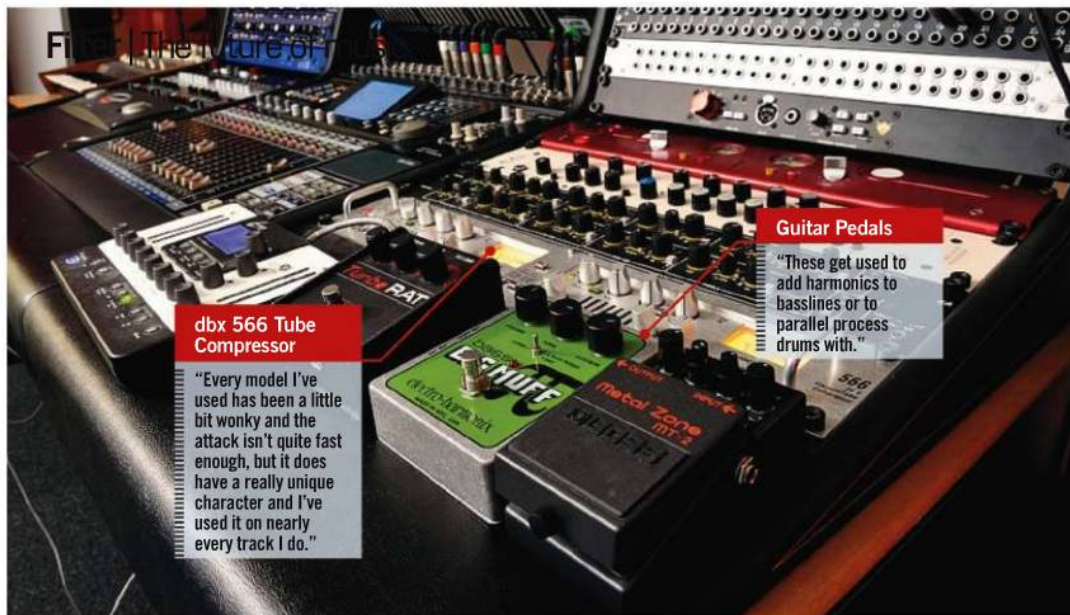


### dbx 566 Tube Compressor

"Every model I've used has been a little bit wonky and the attack isn't quite fast enough, but it does have a really unique character and I've used it on nearly every track I do."

### Guitar Pedals

"These get used to add harmonics to basslines or to parallel process drums with."



## Feel the Bass

Possibly the most attractive reason to do your mixes at Multiverse is the combined knowledge of the engineers who have mixed hours of bass-heavy music that have smashed up clubs all over the world.

The other reason is the mighty ATC SEM-50 Pro speakers that allow you to hear the filthy depths of the bass you're working on. Ginz explained why they chose the huge ATCs. "These were probably the biggest three way speakers we could get in this room without completely deafening ourselves. The guy who ended up doing the design for the acoustic panels was really tight with the guys at ATC as they're only down the road from Bristol in Stroud. So he recommended we try them with the room design and the guy from ATC brought some for us to try. It was an evil masterplan I think because once we used them for a month it was heartbreaking to imagine giving them back. So we ended up buying them and they're fantastic in this room."

"They are super reliable and can handle pretty much anything we throw at them, but ATC are so near, if we do ever have any problems, they come straight over and sort them out."







Multiverse isn't a closed shop for friends in the scene, as Ginz told us, "If it's a mixdown or a mastering type job then we can cater to pretty much anyone. Our experience is in club music and the room is designed for anyone dealing with a lot of low end so Techno and obviously Dubstep are our specialities."

### Vocal duties

With a small live room attached to the left of the control room, the studio is more than capable of singer songwriter and vocal overdub duties too. "A typical thing is that people want to record vocals, comp them and mix them into a track." Added Ginz, "People can contact us and we can often work out something cost wise. We specialise in taking bedroom tracks and polishing them up to the next level – a typical say 15-stem mix would probably take three to four hours and ballpark figures would be around £300."

But because of the labels Multiverse run, they're also a good place for production collaborations,

because we might think it could work on an advert or whatever."

When it comes to the kit for the studio, Ginz has become equally uncompromising, "I used to be into the idea of software", explained Ginz, "but I have sort of rebelled against that now and I use mainly outboard where possible. It can sometimes feel like you're playing a computer game if you spend too much time with your hands on the mouse and keyboard. The next few things I want to get for the studio are more analogue EQs and compressors for the studio. I suppose Dubstep is often associated with plug-ins and programs such as Native Instruments Massive, FL Studio, Trilogy and so on. We are generally quite synth-led in terms of the Dubstep and sounds we make and it makes a huge amount of difference for us to use the analogue synths or even if we run some of the plug-ins out of the computer and through the analogue EQs, pres or compressors."

### Basses covered

So, with publishing, recording and running labels all covered you'd think there were no more pies for Multiverse to stick their dubby fingers in, but they've recently just entered the sample market. Joining forces with Loopmasters they produced their own

Our experience is club music and the room is designed for low end

collection of sounds for budding producers: *Dark Matter – Experiments in Dubstep*. "It was really fun to do", explained Ginz, "It focuses in on Dubstep, but it's very different because it combines the more percussive rolling Dubstep, the soundscape-based Dubstep and the more synth-led Dubstep. It's created by myself, Moving Ninja and Pinch and combines playable instruments, loops, lines and single hits."

It's clear that Ginz and the rest of the Multiverse crew are becoming the centre of the Dubstep universe in the UK, and if you've got a club track that needs that final doom-wobble touch, then why not give Bristol's top bassheads a call! **FM**

although they are obviously much more selective to the projects they take on as Ginz explained, "As far as a more creative collaboration goes, that would be a different discussion. As a label and publishing house we're always interested in new and creative music, but if someone wanted to be produced by Pinch or Ginz for instance than that would be completely up to whether or not we liked the music."

This is also true for Multiverse's focused approach to some of their major TV and advertising licences. "In terms of licensing stuff, we just make and release music that we believe in", Ginz added, "if it gets picked up for licensing on an advert, TV or film then that's cool. We aren't in the business of creating library music though. People come to us for our ideas and releases, so we never think about compromising the music just

### YOUR STUDIO IN HERE?

Want to show us around your studio? Drop us a line at [futuremusic@futurenet.co.uk](mailto:futuremusic@futurenet.co.uk), and we'll pop round for a Choc-O-Milk.





ON  
THE  
**RADAR**

# John Foxx

Electronic music legend John Foxx takes his analogue beauties to the stage. We get an exclusive insight into this one-off live show...

**O**n a 2010 Summer evening, Electronic music guru John Foxx put on a show that not only would make even the most flippant of gear lovers swoon, but would also present a huge challenge to the artists involved. Using a vast amount of the most sought after vintage synths and drum machines, John Foxx took the past to the stage in a unique show in Camden's Roundhouse venue.

Accompanied by synth guru and analogue aficionado, Benge, director, musician and collaborator Steve D'Agostino, ex-Ultravox guitarist Robin Simon and vocalist and keyboard player Seraphina Steer, this was a show not to be missed. We found out more...

**FM: Why did you want to do this concert with vintage equipment?**

John Foxx: "The sound – digital simulations aren't quite the same and Ben [Benge] has declared them no good anyway. We wanted to make a sonic wall with lots of organic random factors shifting around inside it. This way, we can sound like no one else. Perhaps like no-one else wants to."

**Which piece of equipment is your favourite to use and which was the most troublesome on stage?**

"Best for me is the ARP Odyssey which is analogue and lightweight and the [Digitech] Vocalist which is non-analogue, but still mercilessly primitive. The [Roland] CR-78 too – really dinky, that one."

"The ARP is an unparalleled, delicious sonic wonder that still surprises me. CR78 is my kind of rhythm box – unintentionally intelligent but jerky, all at the same time – a timeless reminder of a non-dancing Japanese programmer's idea of western rhythm from 1977. Pretty surreal."

"The Vocalist vocoder allows me to produce unsingable harmonies onstage. There can be two of me, and it almost keeps both of us in tune. I do sort of non-singer vocals, but you can still have your dreams. With this I get to run off the lead a bit."

"The Moog modular system we have in the studio, we can't even move, because it's heavy, fragile and valuable. That period was all hand-built circuits and joinery cabinets, artisan Sci-Fi from Dr Robert. But it sounds utterly magnificent, and it'll be all over the Maths' album."

"As for the worst – well, some keyboards seize up, keys stop working. Bits wear out. Analogue detunes gleefully onstage – any excuse – temperature change, slight voltage fluctuation, plus





unpredictable gravitation effects – especially human proximity. All analogue equipment circuits carry an intrinsic desire to destabilise humans.”

#### How do you feel the show went?

“Some bits incandescent – the *Metamatic* and *Systems* sections – *He’s A Liquid* and *Burning Car* were the best they’d ever been. Rob Simon [ex-Ultravox guitarist] was a joy to work with – that beautiful shape-shifting guitar playing – like some new form of life manifesting in the dark.

“Jonathan Barnbrook’s visuals were sheer flickering magic and Karborn [VJ] and played an absolute blinder. When I saw the videos I was deeply impressed.”

#### How similar was the stage setup to your main studio setup?

“The studio is very different in a lot of ways. You can control things – drag out what you need and prepare it properly, even keep it in tune and so on.

You also have more than one shot. Plus there’s more choice – Ben has just about every synth ever made – and he can synch them all up accurately.

“Then you have the joy of digital control – it’s an inert medium, unlike analogue.”

#### There’s a lot of vintage equipment here – do you get inspired by or use any modern equipment or software? If not, why not?

“I like it all – if it’s good. For instance, the British company who made the Oddity, GForce, have just made a cracking new ultra Oscar design that is slowly morphing into a new instrument. They make really intelligent, sonically rich designs.

“I think we are in a transition period between interfaces now. I can see new methods of control emerging, for instance new software designs for the iPad and Wii controllers – two-hand, touch-sensitive variable grids, then movement and body sensors, etc – that’ll necessitate new, intuitive approaches to synths at last. Everyone is still

emulating old instruments, when I think it really needs a completely new approach. Ableton is also a contender. It’s an evolution and there’s lots of fun to be had.

“At this point though, The Maths idea is to explore those old instruments and recover their uniqueness – even subjecting ourselves to recording to tape, because of the massive array of random textures they make available.

“Now we just use digital as a fixing and editing medium – it’s so stable. A good lad. Reliable.

“So far, plug-ins are the same – very nice and no surprises. Well behaved and personable. Sit you down and ask how your mum is. Some of the livery may hint at rebellion, but that’s like Heavy Metal fans – black t-shirt over a kind heart. Analogue’s the absolute opposite. It’s got scars and it groans into life, then does all sorts of unpredictable things, including moving you emotionally at times.

“It’s all big and warm and gummy. A bit like building a weird new form of life from cosmetic



### Digitech Vocalist II

"I play all the harmonies myself using the MIDI keyboard and I do all of the effects too. It makes it much easier than having another vocalist on stage and it's often how I recorded the tracks anyway, so I can play them live, just like I did in the studio."

### Minimoog Model D

"A classic synth, it's got the unique properties that everyone knows. It's able to deliver very low frequencies quite quickly, which can be difficult. It's got a very wide spectrum of sound and is rich and creamy."

### Roland System-100

"The System-100 is doing a lot of bass stuff which is not what you'd usually expect. It's not particularly heavy sounding, but it's got dual oscillators and we've detuned them quite nicely."

### Roland VP-330

"Great piece of equipment, it was used a lot on *The Garden and Pleasures of Electricity*. It's got a really perfect analogue sound. I love the human voices and the strings. Even though they're really thin by themselves, they sit perfectly in a track."

### Korg MonoPoly

"I'm using this mainly as a bass synth, it's got a really huge sound"

### miniKorg 700s

"We're using this on reasonably resonant stuff – it's got a flanger and echo so it's kind of doing a poor impersonation of other synths."

surgery leftovers, then animating it by catching lightning in a bucket of water on the shed roof."

#### How important are the visuals in your live show?

"Absolutely vital. Jonathan [Barnbrook] makes really startling advanced post-modern moving graphics, and Karborn [VJ] is Mr Cutup, collecting endless fragments and loops. With the visuals you have a beautiful opportunity to make a collection of small inspiring movies and extend the songs into another parallel existence. Anyway, who really wants to watch some stick insect synth-wrestling for a couple of hours?"

#### What's next for you?

"Cheese roll and a latte." **FM**

#### WANT TO KNOW MORE?

John Foxx will perform at Back To The Future with Gary Numan, Motor & Richard H Kirk at London's Troxy on December 3rd [thequietman.co.uk](http://thequietman.co.uk)



**Roland Juno-60**

"This, I really love. It was one of the first synths that had an arpeggiator built in. It makes a beautiful sound, it's a proper analogue synth. It doesn't sound anything like the ARP though, which is much more pointed."

**Roland TR-808**

"This is our main clock – it's connected through to lots of different things around the stage like the Juno-60, Roland System-100 and a Synthesizer.com system. We're using kick sounds off of it too as it sounds great on a big system."

**FM DVD****On the disc**

We were lucky enough to bag a full stage tour of all of the analogue gear used in this recent one-off performance.

**ARP Odyssey**

"This is the synth that made Metamatic. It's my favourite synth and it's the best sounding one I've ever had."

## Do The Maths

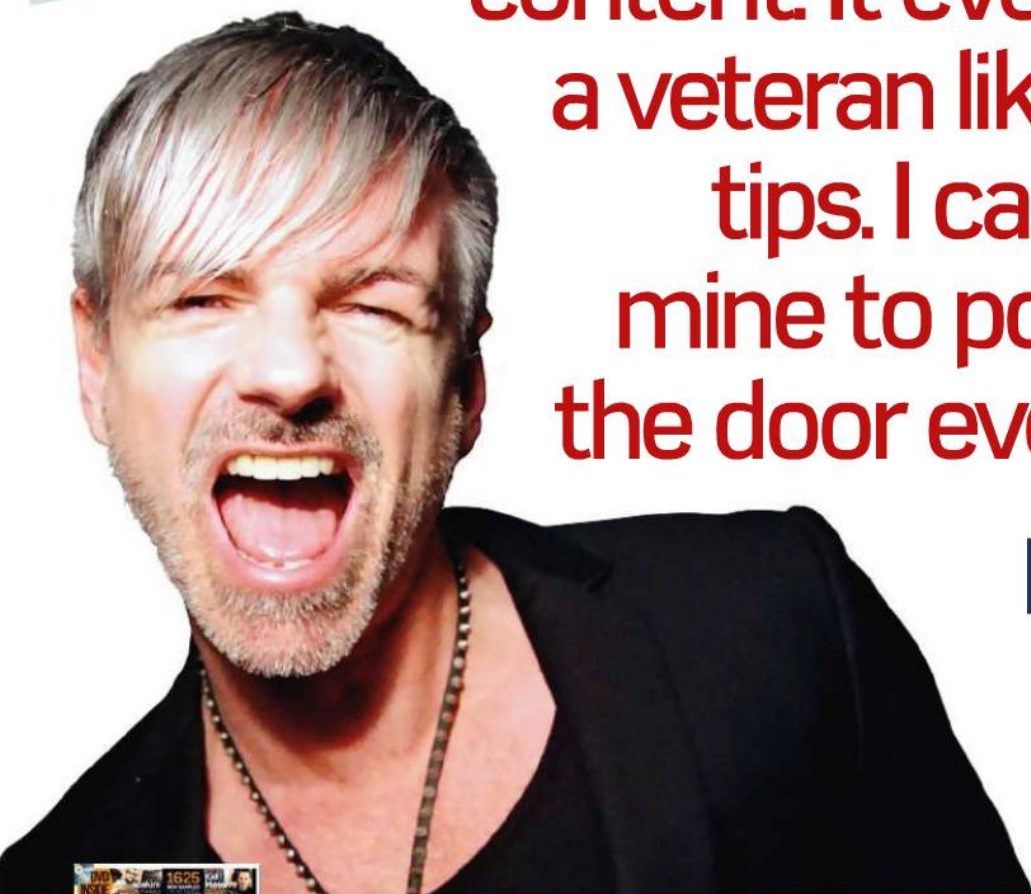
Tell us more about John Foxx and the Maths.

"It's basically a swarm organism centred around Benge. If you spliced Conny Plank with a demi-Warhol genome you might get something close to Benge. He really is this generation's Conny – with Warhol's detachment. He's recording everything that captures his interest in London at the moment, and he keeps himself free to choose. He has enviable sonic instincts.

"Seraphina Steer [keyboard player and vocalist in The Maths] is an austere beautiful extreme harpist with a voice like electric ice-cream while Steve D'Agostino specialises in instant sonic universe creation and demolition. Rob Simon moves in and out at present, because the Maths record is synths only – but he and I are going to work on an album together too. There's something utterly unique about the angles of his playing that no-one has ever come close to in the history of guitar. Benge isn't fond of explaining things too much, and I can't really speak for him, but I think he wanted to make a London post-digital electronic band, a modern sort of Shoreditch Exploding Plastic Inevitable. I assume we're all temporary. It's his vision."







**FM** always has excellent content. It even teaches a veteran like me new tips. I can't wait for mine to pop through the door every month

**D. Ramirez**  
Artist and Producer



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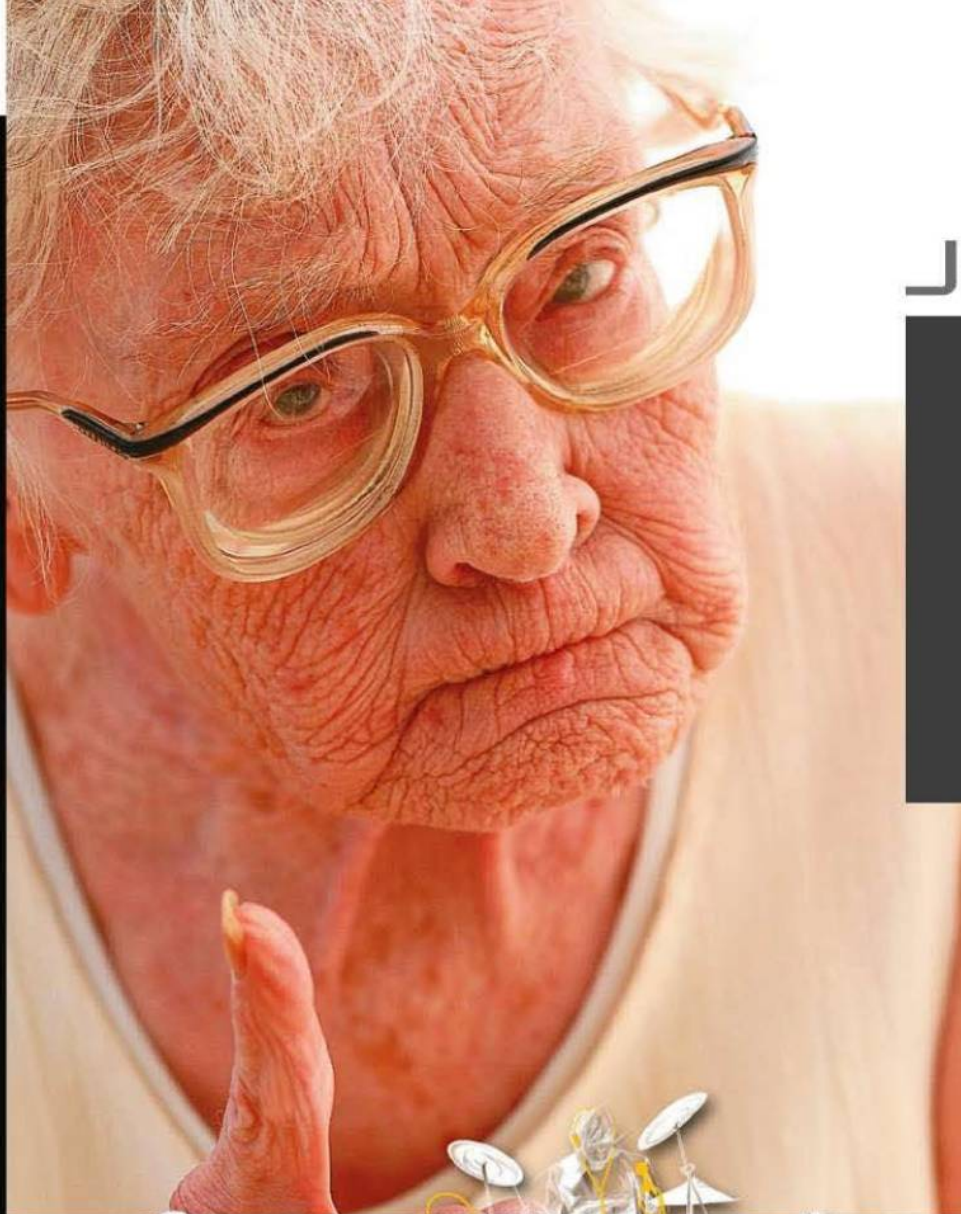
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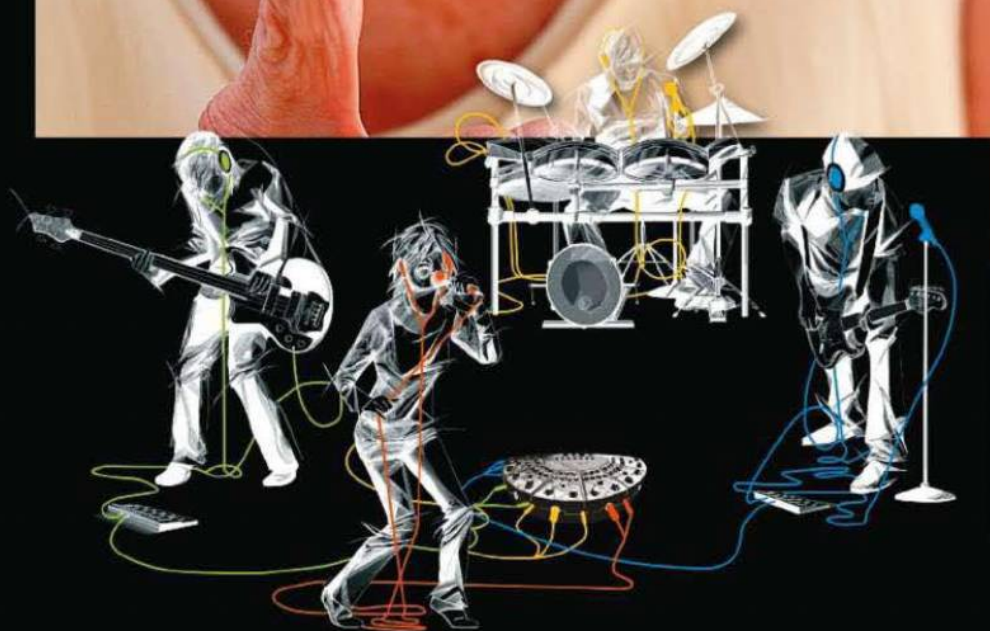
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# mictomaster 2010

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5. 26th-27th Nov  
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6. 3rd-4th Dec  
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# Albums



If it's hot, it's here. Welcome to this month's new releases, all lovingly rated by the *FM* review crew

## Album Of The Month



### Anoraak Wherever The Sun Sets

Grand Blanc / Naïve



Frederic Riviere aka Anoraak is a one-man-band, producing friendly Pop with an Italo/Parisien twist. Call to mind a cross between Air and the modern Disco flourishes of

Aeroplane, Miami Horror and more, and you're most of the way there. A guest vocal from nu-Disco diva Sally Shapiro and the Scottish Folk singer Siobhan Wilson help break the sometimes overtly accented male vocal with two ballads, while the rest of the album remains unapologetically cheesy.

Don't confuse the fromage fragrance with the stench of bad music – this is carefully crafted, robustly produced, sunshine-filled Pop. The whole album drifts comfortably between upbeat, fairly predictable constructs, to melancholy ballads that have just enough musical *je ne sais quoi* to keep them interesting. Some might find this album a bit too nostalgic and possibly unoriginal, but multiple listens will reveal the genuinely impressive songwriting and for synth-heads there's layer after layer of glossy PPG-style bell sounds and Juno-106 chords. Plus, you have to admire the fact that it's produced with enough panache that we weren't 100% sure whether this was the work of soft synths, warm analogue classics or both.

The whole record feels suitably gelled together and although sometimes it can wash by you unnoticed, it's a strong debut. Maybe it's not as edgy as other Synth Pop records but it's hard to get annoyed at Anoraak's enthusiasm and pristine production efforts here. **Chris Barker**

ADD THESE TO YOUR PLAYLIST:

Try Me, Don't be Afraid, Crazy Eyes, Dolphins & Highways

8/10





## Russ Chimes Midnight Club EP

Eye Industries



**Building up a strong following on the blogs, Chimes has become a HypeM darling, with his remixes, bootlegs and recent original tracks causing a stir.**

This new EP sees a step up in production for Chimes with an obvious added gloss and sheen. All three tracks are a cross between commercial club, chart Pop and of-the-moment Disco House while a consistent heavy kick and busy cymbal action keep things full-on and dancefloor friendly.

Chimes has definitely created a narrow but deep

niche with his sound and like fellow blog buddies Starsmith and Grum, includes a heady '80s production influence, with modulating synths, vocoders and over-the-top snares all making an appearance.

The best track of the EP is *Tetre Rouge*, which has all the driving force of Kavinsky while grooving along pleasantly with its dirty downbeat bassline and drawn-out lead line.

It's bold and brash in places, but overall Chimes is proving that he's more than capable of some really upfront, commercial crossover club tracks.

**Chris Barker**

**ADD THESE TO YOUR PLAYLIST:**

**The whole thing!**

**8/10**

## Gareth Emery Northern Lights

Garuda



**Noted as being one of the youngest DJs to ever enter the DJ Top 10, Emery has propelled himself to the big leagues of the Trance genre and this debut looks set to keep him there.** Trance has been evolving recently, with major players embracing Prog, Tech and House influences to broaden their horizons from sawtooths and sidechained pads. This is certainly true with Emery's long player – his classical piano background lifts tracks to a much more musical level and proving Trance and club anthems can exist

beyond offbeat bass thumps and JP-8000 chords. The production here is simple but effective and the Emery's inclusion of more acoustic tones helps to keep things fresh and add an epic, filmic quality.

It's not a world away from Stuart Price's work with The Killers or even Kylie and if you stir in some early Chicane and Deadmau5 to Emery's own sound you've got something that even hardcore Trance-bashers would struggle to hate on.

This album should almost guarantee Emery even more success in 2011.

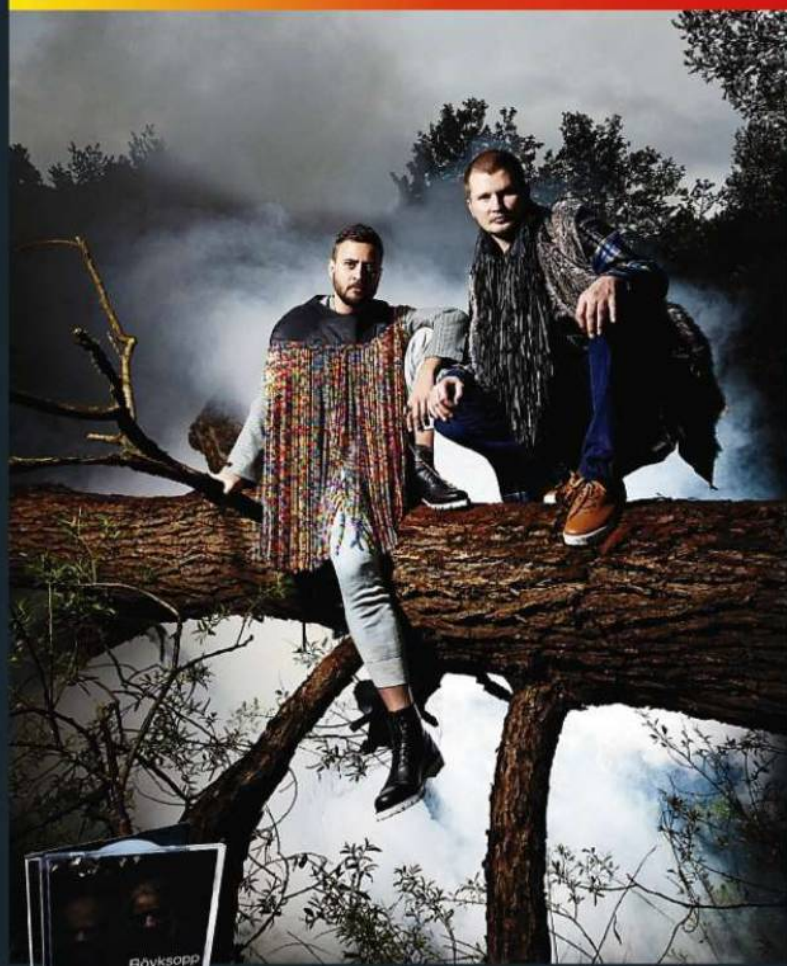
**Declan McGlynn**

**ADD THESE TO YOUR PLAYLIST:**

**El Segundo, Too Dark Tonight, Arrival**

**8/10**

## It's On Our iPods



## Röyksopp Senior

Wall Of Sound

**D**elivered as the counterpart to their more commercial record *Junior*, this nine-track album is a completely instrumental, subtle Electronic work. Apparently worked on at the same time as *Junior*, *Senior* attempts to be a darker broodier episode of the duo's musical personality, but at times comes across slightly pretentious.

One thing's for sure, it's immaculately produced and definitely feels like a complete work of music rather than a series of tracks. But, the rather strange narrative explanations of the tracks as concepts immediately makes Röyksopp seem like they've begun to take themselves too seriously and is actually quite frustrating and takes away from the tracks.

The album successfully moves from a robotic ambience to a more freeform, Prog and Psychedelic tone as it progresses and is a really pleasant listen, even if a little bit forgettable.

That being said, it does grow on you with every play and we're glad Röyksopp have made this album because it does, once again, prove their brilliant musicality and skill in the studio.

Unfortunately, it just may leave many feeling a little bit, well, underwhelmed at the actual album as a whole, as it passes by quietly and quickly. **Chris Barker**

**ADD THESE TO YOUR PLAYLIST:**  
**The Drug, The Alcoholic, Coming Home**

**6/10**



## Blonde Redhead Penny Sparkle

4AD

Three-piece Dream Pop band Blonde Redhead return with a ninth album, having taken flight in 2007 following the acclaimed release of *23*.

Despite the relative maturity of the group (around since 1995), Blonde Redhead's music bestows a 'happening' exterior, managing the seemingly impossible trick of being past and future yet wholly contemporary, without displaying any generic or artistic influences.

They sound like a young band, with fresh ideas and a handle on what's hip and what's not, but with *Penny Sparkle* their maturity also shines in different ways, namely through the album's well-crafted songwriting and sophisticated production, ably assisted by Alan Moulder (Depeche Mode, NIN, U2) who mixed the record.

Stylistically, *Penny Sparkle* does not drift too far from what I've heard from Blonde Redhead previously, 10 tracks of moody, sulky electric Dream Pop, classily constructed via mechanical beats and shrill, horizontal programming. Kazu Makino's forlorn vocal oozes serenely throughout a spacious mix, and sounds unfeasibly chic.

What's really pleasing about *Penny Sparkle*, however, is the songwriting – this is certainly the strongest collection of songs I've heard from the band before. Formidably consistent, the record carries both style and substance, with enough depth in the mix to provide longevity.

*Penny Sparkle* continues Blonde Redhead's creative peak – so catch the ride. **Danny Turner**

**ADD THESE TO YOUR PLAYLIST:**

*Here Sometimes, Spain, My Plants Are Dead*

# 8/10

## OMD History of Modern

Bluenoise

Having reformed in 2006, Orchestral Manoeuvres in the Dark release their first studio album for 14 years, although *History of Modern* is not the experimental, raw Electro-Pop the band espoused in the early Eighties, but more along the lines of writer Andy McCluskey's uniform Pop fodder written for Liverpoolian teenyboppers Atomic Kitten.

Without wishing to be accused of elitism, *History of Modern* starts reasonably well with solid Synth Pop efforts such as the anthemic *If You Want It* and the title track, split into

two separate parts – the second reminiscent of some of Moby's better string-laden moments.

From herein, however, standards start to drop, and McCluskey's vocal starts to vex, especially when standing bare naked against miniscule backing on tracks such as the dreadful *RFWK* and horrifying *Pulse* – surely the most cringeworthy track OMD has ever written. Despite some decent power Pop, *History of Modern* fails to carry the lucidity and conviction that the duo once championed.

Plodding along like an overworked donkey on Blackpool beach in the summer, it seems OMD do not have the appetite for what they know will be a most unlikely comeback, and the record lacks the maturity and subtlety expected from a band with a 30-year history.

**Danny Turner**

**ADD THESE TO YOUR PLAYLIST:**

*If You Want It, History of Modern (Part I), Sometimes*

# 5/10

## Styrofoam Disco Synthesizers & Daily Tranquilizers

Netwerk

Belgium-based Indie-Electro popper Arne Van Petegem brings us *Disco*

*Synthesizers & Daily Tranquilizers*, named after a lyric from Elvis Costello's late-70s single *This Year's Girl*. The album features a slightly more potent edge than previous works, with 10 tracks of anthemic tunes that happily toggle between

Futurepop and Alternative Rock sensibilities. Van Petegem certainly wears his influences on his sleeve. Inspired by the classic Electro Pop records of old, *DS&DT* also draws on American Alt Rock, although Van Petegem's Michael Stipe-influenced vocal drawl is occasionally irritating, unless you happen to like REM, in which case you may be able to handle it just fine.

Eschewing the use of DAWs in favour of recording direct to tape, the album's analogue affluence is more than noticeable in comparison to the searing, tinny patina of most modern-day Electronic Pop records. This is assisted by fantastic live drumming, from guest contributors such as the Sex Pistol's Paul Cook and Alan Myers of Devo.

Energetic and vivacious, what I like about Van Petegem is that he sneers at the sub-standard. *DS&DT* succeeds because the songwriting is really very good, emitting a sturdy blend of Rock and electronics that provides solid consistency and numerous torch bearers that could have you hooked for months.

**Declan McGlynn**

**ADD THESE TO YOUR PLAYLIST:**

*Carpolyn, Looking Glass To Zero*

*Mile After Mile*

# 8/10

## DMX Krew Wave Funk

Rephlex

The man behind underground electro label Breakin' Records, Ed DMX (real

name Ed Upton), produces his 11th album – a heady mix of Electro, Synthpop and Techno (the stench of Kraftwerk is palpable). Titled *Wave Funk*, what Upton calls funk is merely a heaving score of heavily rhythmic synth bass patterns.

Evidently not one to short-change his customers, *Wave Funk* is a double-CD containing 35 tracks. CD-one showcases new material, while the second disc reminisces over previous vinyl-only releases.

The newer material is certainly a lot brighter and Poppier – a hefty collection of mid-paced electronic instrumentals (mostly), welded together using some altogether familiar and much-celebrated vintage gear. Bright, simplistic and unashamedly melodic, Upton provides a fun collection of miniatures, hosting a whole batch of juicy gems.

The second disk is a little more downbeat and atmospheric, contriving Techno-Funk floor fillers and short soundtrack-type pieces. The more you play *Wave Funk*, the more you get drawn to its myriad of hypnotic tunes, defined by Upton's love of warm, bellowing and subterranean analogue synth sounds.

35 tracks is definitely a case of overkill – and at times *Wave Funk* sounds more like a production line of analogue patches – but there's still quite a lot to enjoy in Upton's vibrantly soldered Electro-vignettes.

**Greg Scarth**

**ADD THESE TO YOUR PLAYLIST:**

*Mr Blue, Spinal Implants, Wave Funk*

# 7/10

## Compilations

**PICK OF THE MONTH**

**Skint / Fifteen**  
1995 – 2010

Skint Records



Three CDs and 45 incredible tracks with everything from the chart

tickling sound of Fatboy Slim, to the bass-filled Techno torpedoes of Dave Clarke and Noisia. It's a definitive compilation from a label that has really set a legacy.

**Chris Barker**

## Until One Swedish House Mafia

Virgin



A massive, heart-racing and downright exhausting mix of

club anthems. Add your own fireworks, paper-cannons, disco balls and Patron Tequila as required. **Daniel Griffiths**

## Right To Play Permanent Vacation

Permanent Vacation



One of the most consistent labels around with a compilation whose

proceeds go towards the Play31 organisation who help children involved in armed conflicts making it even more of a no-brainer to buy this fantastic comp. **Chris Barker**

## Various Valeu! – Five Years Of Man Recordings

Man Recordings



If you're yet to discover Man Recordings, you're missing out on the awesome fusion sound of Brazilian Baile Funk and the trashy Euro club sound. Like nothing else, make sure you take a listen.

**Declan McGlynn**

## Various Apparat DJ Kicks

!K7



Spreading his wings slightly broader than the regular four-four mix this

compilation includes everyone from Autechre to Thom Yorke, plus two tunes by Apparat that are exclusive to this mix. It's definitely a bit more highbrow than your average mix and delivers something brilliantly different.

**Chris Barker**

## Retro Respect



**Heaven 17**  
*The Luxury Gap*

Virgin

While the fresh and innovative *Penthouse And Pavement* is revered as the classic, H17's *Temptation*-toting second album is far more hit-laden. Wrestling with the opportunities afforded by the technology of the time (and a sizeable advance) the band buried themselves in studio trickery. Glistening, bold and pleasingly overcooked in places, it's the definitive time capsule of '80s excess. **Daniel Griffiths**



© Gettyimages.com



# Master Like Abbey Road

What is mastering? Do you need it? What happens when the great Abbey Road gets to grips with your track and how can you get that sound at home? We've tips, tests and a whole lot more to ensure your next track is sparkling with mastering magic

# M

aking a track is hard enough. There's the business of writing, recording and bringing all the many track elements together. Next there's blending them through the mix stage where sounds are treated with effects such as EQ, compression, reverb and delay. And then, before your track goes out to meet its grateful public, there's one final stage: mastering. But what is it and is it really necessary?

Before you even begin thinking about any moves to 'improve' the track it's worth remembering that mastering tackles administrative criteria as well as sonic ones. It's still frequently the case that Pop albums feature tracks mixed by a number of

different producers and the first job a mastering engineer faces is to get the running order of an album right and ensure a smooth flow. He's also there to make sure that no track is 'clipped' at the front and that each finishes smoothly at the end, whether this means a long fade over an outro chorus, for example, or a shorter one to curb the length of a long reverberant tail.

He'll also tag tracks with the necessary ISRC codes to make sure that royalties you deserve arising from radio or TV play of a track are assigned to the right artist.

## Tools of the trade

The fun bit, of course, is making sure that the levels and dynamics of tracks are consistent and this is where the creative part comes to the fore. A mastering engineer has control of tone and dynamics. This is the final stage in which the stereo (or surround) mix is treated one final time, to wrest the best possible

result. This could be adjusting bass or treble balances, addressing problem areas relating to dynamics or specific frequency bands and ensuring that the overall volume of the track is 'competitive'. In other words, that the volume is roughly the same as other music of similar

genres and that the resulting track isn't going to sound dishcloth limp when it's played out in a set.

The tools used during mastering are broadly the same as those used at the mix stage as, effectively, a similar job is being done again, albeit gelling together all the various mix elements with a single cohesive treatment. So, rather than mastering representing an opportunity to right any wrongs, it's merely an opportunity to add gloss, sheen or weight to a track which is already complete, either to upload it to an MP3 store, write it to RedBook CD format or prepare it to be cut to vinyl, where mastering is a must.

## Misconceptions and the Loudness War

Perhaps the biggest misconception about mastering is that it represents an opportunity simply to slam the output level of a mix as hard as possible. As you'll know, digital recording and mixing provides us



Step inside the world-famous Abbey Road Studios



with a 'maximum volume' level of 0dB, so it's easy to find this confusing. After all, if your mix peaks at 0dB for one brief moment, it's as loud as it can be, right? Well no, as that's ignoring the way that we actually 'hear'. Humans subconsciously respond to average volume, so if the rest of a track is made louder leading up to and after this peak we'll hear it as 'being louder', even though the peak moment will be at the same volume as before. Taken to extremes, this means that you could bring all program material up to the same volume as that peak resulting in a track which is within touching distance of 0dB from the moment it starts until it ends, the net result being a 'loud' mix.

Fortunately, as this drive towards maximum volume resulted in records which flirted dangerously with distortion, the current mood in mastering circles is that a more natural result, with less obviously squashed dynamics, is both preferable and increasingly common, though loudness maximising remains a crucial part of the mastering process. The trick is to play the game, to master loud, but to do it smartly. It's still very true that a record mastered without any loudness maximising stands little chance of being received as warmly as those with the treatment. Much of the natural energy and weight of a track is derived from that perception of a high average volume.

### Mix before mastering

As well as basic volume the other crucial weapons at a mastering engineer's disposal are EQ to address frequency balance issues, compression and multiband compression to provide different volume solutions within different frequency bands and effects such as stereo spread to widen and lift a mix. While these elements can all be brought into play to 'give punch to drums' or 'bring out the groove' of a track it's vital that mastering is never seen as a cure for a bad mix. The levels of access and potential for recovery in mastering are markedly less than when you're mixing. So make sure you've done your best before you commit to stereo or there'll be some time consuming, frustrating and potentially costly work ahead.

## Before You Begin

### Five steps to get your track master ready

**1** Firstly you should ask yourself if you are the right person for the job? Are you too close to your track? Are you sure that your track wouldn't benefit from a fresh pair of ears? Even if you're bent on not paying a penny for a pro it can be an interesting idea to at least let your mate have a go on your behalf. Try it. You might like it.

**2** Decide what is the mastered track principally for? Is it heading to radio or TV or is it being manufactured for CD? Is it heading straight to digital download or will it be mostly played at home? Or is this the next club smash intended to be played out large? Your track needs to be mastered depending on its 'purpose' so tailor your output channel solution accordingly.

**3** Don't confuse mixing and mastering. Increasingly, would-be producers and programmers put an output channel solution into their autoloop song starts or, at the very least, have one on the output channel long before a track is fully mixed. While there's mixed opinion on this

approach, you're more likely to have difficulty isolating problems in your mix if you're sticking to a set preset or chain and not adapting the master to a finished mix or fully understanding what's happening in your signal chain. If you are determined to start with a master chain, it's good practice to regularly A/B your mix with it in place then bypassed.

**4** It's important to master in a room which is providing accurate playback of the track you're working on. Even more so than when mixing. Complete acoustic treatment solutions can be expensive but if you're determined to carry out all of your own mastering, this could definitely be a worthwhile investment.

**5** Give your mix some room. Remember that if you're sending your mix off for mastering elsewhere, or tackling it yourself at home you should start with a mix that isn't already bumping into the maximum. Mastering will take care of this, so give it room to do its thing.







# Abbey Road Vs Pro Studio Vs Your Studio

Which mastering process is for you? We take a reader's track and master it three different ways...

So far we've discussed many of the common misconceptions of the mastering process and hopefully spelt out the options available to anyone who's serious about making their tracks sound as good as they possibly can.

So, where to go and what to do? The first option is of course, to have your track mastered by a professional mastering house. Many large, well respected recording studios have mastering rooms attached and staff who've spent decades learning the dark art. Alternatively there are many mastering studios who solely concentrate on the mastering process rather than any recording. If you're

cutting bass-heavy vinyl dub plates you might want to find someone that's a true specialist.

The next option is to trust your local friendly recording studio (or benevolent skilled engineer) to master your track using their gear, time and ears. Any engineer worth his salt will advise you and serve up a bunch of suggestions as a fix. If nothing else, having your track played loud on a studio's system by someone who'll give you a second opinion on your mix is always going to be useful. Ask at your local studio. They'll doubtless do you a competitive rate for mastering or – if they think there's a glimmer of you recording there – might give you their opinion (if not a full-on correctly

formatted 16-bit 44.1kHz WAV) for free. Finally, there's the good old-fashioned DIY option. With so many mastering effects plug-ins available and the ever-increasing power of your DAW, you really do already have all you need to do the track yourself. The only question is are you brave enough (and objective enough) to handle the process?

In order to put all three options to the test we employed the services of three experts and charged them with the task of making our test track 'sound better'. So is there a right way to do it? Will all of our engineers approach the challenge in the same way? And just what will the results sound like? Time to find out...

## The Test Track: Lumeria, John Andio

We wanted a track that clearly had potential but, for whatever reason, was let down at the final hurdle. After much deliberation we chose *Lumeria* by John Andio, aka Cyberoptikon – [myspace.com/cyberoptikon](http://myspace.com/cyberoptikon). It's an Ambient Dance track with a big unruly sound. But what does its maker reckon that the track needs. "The most important thing I have noticed is that it doesn't have enough impact and may not be loud enough," says John. "Over the past year I have become a fan of Above and Beyond-style mixing. I wanted a thick bottom end to work with the high choral arrangement."



# The Pro Studio: Mastering With Stuart Bruce

**W**ith a wall of analogue gear as big as a library bookcase and snakes of cabling winding every which way, Stuart Bruce's studio is an Aladdin's cave of classic kit.

This veteran of production employs any means possible to get the sound he's after and if that means experimenting into the small hours with options that 'just might work', then he's your man. His dedication to creativity has taken him all over the world in his 30-year career.

Faced with our test track Stuart intended to use the best of analogue

and digital to deconstruct then reconstruct the track for the better. And while some of the techniques he used owed a little to his engineering and production skills he couldn't wait to get the track out of its Logic home (from where he played the 24-bit 44.1kHz track original) and out into his wall of hardware goodness.

"It's very dense isn't it?," Stuart says on first play through. We agree. His Sonodyne monitors put in an able job of presenting the wall of sound that the track packs, but it's clear that there's work to be done. Meanwhile the smaller, powered Yamaha MS101 MkII near-fields only serve to reinforce the lack of range in

the track. Stuart spins back, sits back and goes again. By second and third playback he's made an important discovery. "Look," he says, sparking up BX Digital's *bx\_control*. "A huge amount of the track is in mono. All of the drums, in fact," and to demonstrate he flicks a virtual switch to mute the mono signal and – bingo – all of the drums, save for a shimmering ghost of the snare and hats, disappear. "The only part of the drums that's in stereo is a little reverb," he observes. "Everything else is straight down the middle and that's why it sounds so dense."

It's time for some bolder moves. Stuart sets about routing the audio out of Logic and back in again and it's clear very early on that this mono-ism is the heart of the track's problems and one Stuart has an idea to fix. Using *bx\_control*, Stuart separates the track into Mid/Side format. This recording technique (covered in excellent features

This allows us to treat the central component independently of its soupy background

previously in *FM*) splits the track into a central mono element and a combined left and right element. In this case, it allows

us to get at and treat the problematic central component independently of its soupy middle.

The central element heads first to the SPL Transient Designer for a little sharpening. Attack set at five and sustain at three just boosts the presence of the beats.

Next on to a GML EQ where it's boosted "a little" at 50Hz, 200Hz and 1.5kHz. And "a little" at 450Hz, just to make sure. "This set up has the effect of increasing the air and clarity in the drums.

"Meanwhile the surround element goes to the Tubetech CL 1B compressor where I'm giving it a 6:1 ratio with medium attack and release. This is just for a little warmth and colour," says Stuart. "It's a very digital sounding track, very grainy, so this helps cure that.

"From there, the stereo signal gets sent to a second GML EQ, cut at 50Hz and 120Hz, effectively taking out some of the weight of the pads, and allowing room for the drums. Again there is a little top end boost at 1kHz and at 16kHz that has the effect of opening up the track so that



Stuart's studio boasts an all-digital front end with plenty of classic analogue behind the desk

## Stuart Bruce

Stuart began his career at Sarm Studios, London, in 1981 where he worked with Duran Duran, Frankie Goes To Hollywood, Stevie Wonder and more. He immersed himself in the emerging technology of the period and began a career as a programmer and remixer. Today, he splits his busy schedule between the UK and France.



it appears more stereo. This is to offset the increasing level in the centre – the drums – as that has the effect of making the track seem less stereo.”

Time to recombine back in the box. “It all comes back into bx\_control which converts the track from M/S back to stereo,” explains Stuart. “I’ve dialled in a little of the stereo width parameter here. It’s at 128%. Again just to get some space in there.” Is that it? “No, there’s more!” says Stuart, reaching for a final couple of plugs. “There’s a Waves JJP Compressor here – a Puigchild 670, which is their Fairchild

emulation. It’s in lateral and vertical mode and is compressing the mid of the track just lightly. It’s just tickling those drums, no thrash at all.” Sounds good so far.

“And then we’re into the UAD Precision Limiter to just knock off the peaks. It’s not giving the track any more level. It’s at +1dB on input and -0.1dB on output. Just to make sure there’s no clipping come CD authoring time.”

The final result is remarkable. The detail on the rapid octave bassline is audibly more pronounced as we toggle between the original track, leaving Logic and the returned,

recombined version of the track arriving back.

Similarly there’s an increased ‘slap’ to the snare drum and an increased sense of hi-frequency excitement. The track definitely feels more exciting and buzzing than before and while it’s actually a little quieter than the original, the increased sense of space and stereo width is a very welcome addition.

Plus it’s ever-so-subtly wider, giving that wall of pads and reverbs room to breathe and make their individual presence noticed. It’s anything but conventional but the result is a better sounding track.



## What Was Done



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# Abbey Road: Mastering With Geoff Pesche

**I**f you're going to have your track mastered professionally why not have it done by the very best? *FM* spared no blushes and went to the top of the tree, Abbey Road Studios, aka the world's most famous recording studio for their take on our track.

You'd be forgiven for thinking that our nerve must match our wallet, but today's Abbey Road has its iron curtain folded neatly away and it's possible for mere mortals to get the same treatment afforded to the Fab Four. It costs just £90 to have your track mastered in the self-same building that produced *Sgt Pepper*. The pricing is all thanks to Abbey Road's new online mastering service. You visit their website ([abbeyroadonlinemastering.com](http://abbeyroadonlinemastering.com))

choose what you want from simple drop-down options, upload your track, key in your card details and within five working days one of the experts at Abbey Road – the same experts that master smash hits from Kylie to Coldplay – will sit down with your track and give it the treatment.

There are three mastering rooms in Abbey Road Studios, each staffed by a pair of engineers who work alternately. Dishing out the jobs is Lucy Lauder, who heads the Mastering department and uses her own keen ear to match the right engineer to the right piece of music. Remarkably tracks submitted via the online mastering facility aren't treated differently in any way to the studio's other work. Lucy administers a central spreadsheet and your chosen engineer really will be working on your track in between mastering future hits for world famous names.

Our designated engineer was Geoff Pesche. See the following page for his bio – suffice to say here that in

20 years of experience his CV is like an encyclopaedia of the great and the good. Two PC-based Sadie systems – one for playback, one for recording – take care of the audio as we listen. Monitoring is taken care of by a pair of fridge-sized B&W Nautilus 801 monitors, each with a Bryston amp while industry standard Yamaha NS10s provide the grim-faced boxy nearfield. The real magic however is in Abbey Road's bespoke EMI

and compression and then on to a Jünger Accent 2 Digital Dynamics Processor for limiting duties. Surprisingly Geoff loves and trusts this box so much that he rarely has cause to adjust it beyond a simple preset. A new addition to the room was an amazing vinyl cutting lathe. Yes, with vinyl showing no signs of disappearing Geoff can just as easily cut your track to 12" or 7" vinyl masters in addition to the rather more

quickly tweak the desk. "Reaching a verdict on a track is quite quick because I know the room so well," he says. It's a curious process – at no stage do the changes employed seem wild or sudden but Geoff is perpetually working the desk. Another playback. And another.

"I don't use plug-ins, I use boxes. It's all hardware," explains Geoff. "People can't have this kind of stuff in their homes because you can't buy it. These are EMI modules from 1972 and I use this on passive stuff that doesn't need a lot of work. This track needs a little more so the Prism EQ is a little harder and more precise," says Geoff. "Good mastering rooms will have two sets of EQ and a good stereo compressor, good faders and good converters. If you see a mastering room with racks and racks of gear, the guy's in a quandary – he's got too much stuff! What we've got here is proven and really works."

So what does Geoff think of the track so far? "It's loud, but it's not brick-walled. People think it's got to be loud before it gets to me but that's

not the case. I make it loud – with a four-grand limiter! Headroom is important, so they need to retain the

dynamics and let me do that."

Geoff continues his work. "20 years ago we were putting the kitchen sink in but people can spend their time perfecting what they're doing now because they're in their bedroom. They're not paying for studio time. A lot of it sounds great – mixes are better than they've ever been – and this is mastering: if it ain't broke, you don't fix it. You don't have to do

Tracks submitted via the online mastering facility aren't treated differently to other work

“TG12410 mastering desk, with each of the three rooms having its own identical console. Essentially this is a rare analogue EQ and filter with notched dials for settings. There's no total recall here. Geoff logs all the settings of every session in a notebook so as to be able to return to a project should a tweak be required. After the vintage EMI magic comes a Prism Sound MEA-2 Mastering EQ for EQ

boring (but absolutely vital) WAV file and CD. The first part of any mastering session is an all-important listen through. Geoff assumed the position (ensuring that all journalists, PR, management and photographers were well behind the magic listening point) and cranked out the track.

"Perfect!," shouts Geoff above the mix. "I know exactly what this track needs," and with that he begins to

## Call Tech Support

"A good example of the technical expertise here is this fader. It broke the other day and went open circuit. It's noisy. It's a big deal.

"This isn't new kit but they were able to take it out and replace it with an identical tested replacement. Look at the sticker: Tested 24/08/98. Ready to go. It was taken out of its box and slotted in here. Fantastic."





something and in those cases what you're paying for is me saying "It's right". You're never going to hear your track as good as in here, it's a controlled listening environment, so if it sounds good in here, bingo."

Geoff's moves and the changes in the sound are becoming less noticeable now. We sit taught. Silent. And... "I think that's it!" booms Geoff and suddenly the music stops. We all breathe again and gather at the desk for a closer look.

"There, press that," instructs Geoff. He motions to a single, small illuminated square button at the west-most extremity of the desk. "It defeats the EQ so you can hear the before and after." The track starts again. From here, up at the desk the sound is full, dense, swamped even and the track is cranked enough to reveal detail we'd not heard before. This track needs work. We tentatively stab the button and... boom. Instantly the bottom end drops away revealing a much more discernible middle and delicate, brighter, less brittle top. We hit the button again, undoing Geoff's work and once again we're hit with a hidden bass note so intrusive as to act like a distant annoying drone. How had we not noticed this earlier? "It's night and day. But subtle," observes Geoff. "It's evened out, sonically more detailed, even at low volume. It's more controlled and... easier."

So what exactly are we listening to? "Well there are two set frequencies that I'm cutting," says Geoff. "There's 150Hz, which is high low end, and 90Hz which is above the kick drum, in the low low end. I'm subtracting at both those frequencies and adding a little bit of top end just to sweeten it."

"The strangest bit was at the end," Geoff continues. "When the final synth part comes in, it just joins the track. It's a huge sound and there's no room for it. The track's loud already but it just gets louder. It's mad, really. I've programmed a gain change so when that synth kicks in, the track comes down 2.5dB. It's a fade over 10 seconds so you don't notice it." We don't.

The track seems at once louder, yet dynamic, with a renewed clarity to the middle and a new shiny top end. And no more drone. All in all, some sterling work and arguably the most professional, calculated and precise time we've ever spent in a studio.



Geoff's pair of Sadie PCs play back tracks and record his finished work

### Geoff Pesche

Geoff has worked at Sanctuary Townhouse Studios and Abbey Road Studios and has worked with New Order, Chris De Burgh, Mike Oldfield, Beta Band, Aphex Twin, Therapy, Lily Allen, William Orbit, Noah and the Whale, Adele, All Saints, Jack Penate, Arctic Monkeys, Snoop Dogg, Coldplay, Kylie and Gorillaz.

## What Was Done

24-bit 44.1kHz playback from Sadie

EMI TG12410 module for Abbey Road-only EQ magic

Prism Sound MEA-2 Mastering EQ cutting at 90Hz and 150Hz, boosting at 16kHz

Prism Maselec MEA Stereo Compression

TC Electronics 6000 for gain stage elevated to CD prep level

Jünger Accent 2 Digital Dynamics Processor to limit

Back into Sadie, recording at 16-bit 44.1kHz, producing a WAV ready for CD mastering



# Your Studio: Mastering With Jono Buchanan

**J**ono is the Logic master. If belts were issued for Logic skills Jono's would be a battle-worn black. Always up for the

challenge Jono jumped at the chance to fabricate a finished master entirely within the box. Despite recently moving his studio out of the family home with some bigger projects in the works, Jono's setup is still very much your typical home studio. There's a Mac, a pair of medium Genelec monitors, a Mackie Big Knob and little else. An ideal scenario for our 'in the box' challenge.

Time to get busy, and Jono loads the track into Logic. "In terms of the mix – it's very full," says Jono as he listens. "Without the drums, it's an Ambient track. It's quite 'drifty' but just happens to have a four-to-the-floor beat on top. The main issue here is that it's quite woolly in the middle. There are lots and lots and lots of pads going on!"

Jono listens closer. Spins back and starts again "There's no definition in the bottom end and no sparkle at the top. If this is a Dance record then the main outcome for me has got to make this sound fuller and less reliance on the pads in the middle."

It's time to leave the master to his tools and with the brief that he was only to use Logic's built-in plugs (i.e. do the whole job, in the box with a single inexpensive piece of software) we slipped away in search of tea.

When we returned a half hour later things were – amazingly – almost done. It's sounding bigger – and better. "First stage was to EQ the track, which I did with Logic's Channel EQ," explains Jono. "My main goal here was to bring out the top end, first of all. There's no air – it's bright, but there's no space. After that, I wanted to find the kick

frequency and boost that a little just to make it a bit punchier. And finally there's that whole dense mid range. I used Channel EQ to scoop that out. You can use the EQ's analyser feature to tell you where the track is busiest."

So with a new, cleaner, less cluttered signal, what's next? "Next came a Multiband Compressor," says Jono. "I used a 2:1 compression ratio at the bottom end to make it less flabby and tighter. I dropped the low

mid and upper mid in level and the top is boosted just a little. The use of the Multiband really helps me get to the parts that need tweaking.

"After that, the whole thing is put through a regular Stereo Compressor. This just pinches it all together. I use a really low ratio just to get the whole track to match its peak, then a long attack and release.

"Next comes a Stereo Spreader. It's a very dense, middley track and I

wanted to get it a little wider. I limited the range of the Stereo Spreader just the top end however – from 700Hz to 7kHz. This just makes the mix that bit shinier and puts a bit of life into it." Jono observes.

"That bit at the end is weird," he explains. He's found the track's booby trap – it's large overpowering synth sound near its conclusion. "It's got a resonant low mid element and it's all on the left. It's very peculiar but the settings I've made limit it and pull it back into range. That said I could have done with a bit more headroom to work with here.

Finally there's the Logic Limiter set to zero gain in and out. This isn't a loudness maximiser as such, it's just there keep things in check. And to double-check that, I've put a level meter in there too – just so I can be 100% sure that there's no clipping."

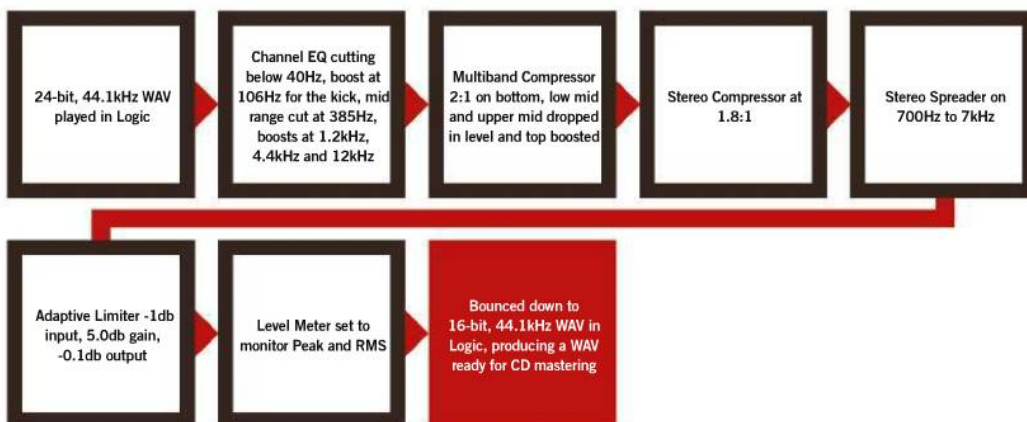
And the result? Much bigger and more up-front. There's still a lot of bottom end in there and the top boost and spread makes the track that bit more impressive without technically being louder.



## Jono Buchanan

Jono Buchanan is a producer, composer and songwriter. He has produced remixes for Whitney Houston, LeAnn Rimes and Shania Twain and has written for TV and film around the world. He's recently completed albums for Professor Penguin and Annakin and lectures at London's Guildhall School of Music & Drama.

## What was done





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# Conclusion: So which do you prefer?

**P**erhaps the most important thing to learn is that the process of giving your music to a mastering

engineer (or anyone else for a 'second opinion') always gives you a new perspective. To our ears all three mastered tracks sound fuller, more defined, more exciting and – interestingly – not necessarily any louder. We were surprised by just how subtle and sympathetic all three of our engineers were.

Our conclusion would be that while you can master a track yourself, getting a fresh pair of ears with a fresh perspective is always a good way to go. Are you confident enough to go the whole way, from conception to production to mix to mastering? Do you really 'know best'? It's perhaps this element of doubt that's the strongest reason to get the experts in, rather than any shortcoming of the software and hardware involved. Remember, if nothing else you're paying for someone who's new to your music to tell you exactly where you're mix is going right or wrong.

And if that person is an engineer at Abbey Road with 20 years of experience then that just makes the process of handing over control that little bit easier.

## Yes, but which is BEST?

That is of course all well and good, but which is *best* you ask. Well, we're going to let you decide – it's subjective after all. The three masters and the original are downloadable and unzippable here:

<http://bit.ly/apCMØG>

(That's a zero by the way).

We've called the three tracks *Lumeria Mastered 1, 2 and 3*. All three are 16-bit WAV files – ie. exactly as you would get from each engineer, ready for burning to a CD. Alongside the WAVs is a text document that tells you which track is by which engineer but please play along and decide which you like best BEFORE you open the text file.

Then let us know what you think! Are you surprised? Which do you prefer? Have we changed your mind about mastering?

Tweet us @FutureMusicMag with your verdict. Or get in depth, email us at [futuremusic@futurenet.com](mailto:futuremusic@futurenet.com). **FM**

## WANT TO KNOW MORE?

Next month we handle the issue of writing strong tunes. You might be a master of the beats but it's a musical uplift that'll always move the crowd. *Future Music 234* is on sale November 25th.

## The Artist's Verdict

We give all three masters to the maker – here's his thoughts...



John Andio, aka Cyberoptikon, takes the listening test: "Well, I must say that all three versions are highly impressive and much better than the original. Master One sounds really nice and

thick with a really clear high end. Master Two is definitely cleaner and flatter too. When I raise the bass on playback there's absolutely no distortion. This sounds good in the latter half of the track

where the bass is more important. I like this version as it seems less risky to send to a DJ without fear of rejection! Master Three really stands out though. The drums are like an earthquake!"

## Mastering At Home

Seven Essential Tips for DIY mastering

**1** Start with an EQ to prepare frequency changes that will help compensate for the output limiter and then use either a stereo or multi-band compressor to address levels. Finally, there's our loudness maximising. This needs to come last in the chain as this plug-in sets the volume 'ceiling' which you don't want to risk exceeding. If the mix is solid, these three plug-ins should be enough.

**2** It's too easy to select 'Master EQ', 'Mix Compressor' and 'Brickwall Limiter' from the respective preset lists of your bulging plug-ins and assume the mastering stage is finished. Nothing could be further from the truth – you must tailor the plug-ins to the unique qualities of the track you're mastering.

**3** Multi-band compression – beware. Nothing has the potential to mess up a well crafted mix like this plug-in if used incorrectly. Be subtle with your settings and if you're finding you need to be 'too extreme' go back to your mix project and making adjustments there before attempting mastering again. Often, for well mixed tracks, some gentle compression can do a more effective job.

**4** Volume remains a false benchmark for quality. People have an unfortunate tendency to associate slammed volume with 'goodness'. For Dance music, in particular, your record will need to be competitive in terms of loudness maximising if it's not to be less 'full of impact' than other records played in

the same set. Again, work your way to 'loudness' carefully by choosing good EQ and compression settings and a maximising treatment which doesn't just sound loud for the sake of it.

**5** We all have working habits and know the tricks which work well for us throughout the production process and as you become better at mastering, you'll learn which plug-ins and settings to use to get close to a good result for your own music. If you're asked to master someone else's work though, the slate needs to be clean. This will be a record mixed differently, using different instruments and sounds, so those same tricks won't necessarily yield the best results. Open your ears and respond to what you can hear, not what has worked in a different context before.

**6** Headphones are great for picking out mix and mastering details in particular but they provide a false sense of acoustics. Many don't monitor bass well and while it's a pleasant pat on the back to have your headphones confirm that your mastered track is sound, to trust in them completely isn't a smart move.

**7** Finished? Maybe not. Test your mastered track on as many systems as you can and compare it to other music in the same style. Invite someone whose ears you trust to hear your new master. If collaboration no longer exists it's easier for poor decisions to survive. Some constructive criticism is always useful! Good luck!





# The Summer Collection from KMR

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## DAV BG501

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Avocet is a stereo and surround controller with three digital inputs, three analogue inputs and a headphone system. "Avocet sounds all but invisible using the analogue inputs. It would be hard to think of higher praise. Not only that, the D-A is stunning". – Rob James.

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## Josephson C42 Matched Pair

The C42 cardioid is the closest thing to an all-around microphone. Applications include acoustic and amplified instruments, ensemble and choir pickups, concert recording, sound effects and vocals. "the Josephsons balance the detail/clarity/fidelity elements with the musicality/liveliness that simply makes things sound good." Brian Lucey.

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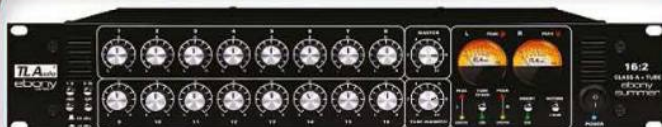


## ShinyBox 46MX

Each 46MX ribbon microphone is hand assembled at the bench by Jon Ulrigg of ShinyBox in Washington.

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He's produced Ellie Goulding, remixed Lady Gaga, written for Kylie and he's only 22. Now, he's set to launch his solo career.

**Chris Barker** hops aboard the Starsmith Enterprise

IN THE STUDIO WITH...

# Starsm



# Smith

**B**orn as Finlay Dow-Smith, Starsmith is a classically trained musician who specialised in performance saxophone at university while using his then relatively basic studio to slowly build a name for himself as a remixer and producer. His almost instantaneous rise to success in the last couple of years has been mainly due to his work on the Ellie Goulding album, *Lights*. This led to work with Diana Vickers, Cheryl Cole and more recently with Kylie on her latest album *Aphrodite*. Not bad, considering it was done mainly from his halls of residence. Since, Starsmith has racked up an impressive list of remixes including Lady Gaga, Beyoncé, N.E.R.D, Katy Perry, Timbaland and Robyn.

Now, Starsmith's recent project sees him signed to a major label and about to embark on his

own solo career, where he not only plays and produces, but also sings. With influences from French filter House combined with more straight-up songwriting styles, Starsmith is creating something completely different from the more traditional Pop that you might already know him for. One thing's for sure: 2011 is set to be a big year for this ambitious young producer.

#### FM: A quick rise to success then?

**Starsmith:** "Yeah, it was very fast. I met Ellie [Goulding] while I was still at uni last January in my final year. She'd dropped out of a different university six months earlier but had contacted me via MySpace when she found some of the Pop remix bootlegs I had been doing."

#### Was she unsigned at the time?

"Yeah, she was getting in with a few producers but she said she wasn't feeling what they were doing and could we try to do something. She sent me an acoustic demo of *Starrey Eyed* and this was probably when I started to take things a bit more seriously. I loved her voice and sent her back a really basic idea and she loved it.

"For about eight months we were working together in my mum's house and my room at uni on the tracks, with no sort of plan. We were going to be a duo originally called Gouldsmith but her manager was really keen on just developing Ellie."

#### So when did Ellie get management?

"Well she sort of had a manager when we started but as things developed the management obviously



became more interested. But it was good because I was really interested in giving the whole producer thing a shot anyway.”

**How did the management and the major feel about you, a no-name producer at the time, working with Ellie on her tracks?**

“Well what Polydor loved about Ellie’s stuff was that it was so homegrown and different, so that’s what they wanted from the album. We were lucky because you would expect the label to take Ellie

**For your record deal with Island you must have had stuff that you were working on?**

“The track that I sort of got signed off, I still haven’t finished yet. It was nice because I got signed not just on the back of the Ellie album, but they had heard my remixes and bootlegs and other stuff too. I gave them a lot of ideas of what I’m about, I think.”

**Who are you publishing with?**

“Warner/Chappell. Mike Sault looks after Fred

**Have you focused more on your solo material now?**

“Up until a couple of months ago I was still doing stuff for other people, so I’ve put the brakes on that and the remixing so I can work on my own stuff.

“I did 20 remixes last year and although it was great, after speaking to people like Alan [Braxe] I realised that his two remixes a year seems to serve him better. Now I’ll be much more picky about which ones I do because the remixes are much more interesting like that and it creates a much better buzz from people waiting for the next Starsmith remix.”

“When I heard he deals with these artists I really had to meet him – he took Stuart [Price] on when he was my age

**The stuff you’ve played us today is much less musical than the stuff you did for Ellie and what people might know you for.**

“Ellie’s album was a weird one for me now looking back on it because there was a lot of piano, strings and guitars, which might

and push her to another producer, especially a debut album where they really need it to be a success. But, we were trusted and it worked out really well for both of us.”

**Did you mix the album yourself?**

“No, Spike Stent did the final mix in LA and I was meant to fly out to attend but I’d already taken two months out of my solo record deal to finish Ellie’s album and I couldn’t really take any more time. I was sent mixes back and fourth but of course it’s Spike so it was never exactly going to sound dreadful [laughs].”

Falke, Stuart Price, Alan Braxe, Imogen Heap and when I heard he deals with these artists I really had to meet him – he took Stuart [Price] on when he was my age and look at him now.”

**He’s your career idol then, Stuart Price?**

“Yeah, it was funny because I worked with him on the Kylie session and although it was obviously amazing to meet Kylie, I was so excited about meeting Stuart – I’ve always liked what he’s been doing. It was great because there were a load of parallels between how he started out and how I did – it gave me a load of hope for what I’m doing.”

be more associated with a straight down the line producer who maybe doesn’t put too much of their own sound on the record.

“With my album it might be a bit of a shock to people because I’ve been recognised for Ellie’s album and the first single is quite clubby. I don’t want people to think that it’s a sample-based album, because there are tracks with myself singing and other collaborations. Hopefully there’ll be a track with Ellie and I’ve been waiting to do a track with Imogen Heap too which I’ve been really looking forward too. But, at the moment I’m really focused on the tracks that I’m singing on.”



**Focusrite Platinum Twin Trak Pro**

“All the Ellie Goulding stuff was done through this including guitars and vocals and even some of the compression. We used the sE2200A mic for half the album and any vocals we needed to re-record we used my new Neumann TLM, but it was all through the Focusrite, because Ellie’s album was done before I bought the Avalon.”

**Alesis 3630**

“I read loads of stuff on Daft Punk and discovered they had one of these so I had to get it. It’s so cheap it’s stupid not to own one, and it looks good in the rack.”



**Moog Little Phatty and Dave Smith Prophet-08 sit in Starsmith’s keyboard rack**







## Routing Drum Stems with Starsmith



**1** "I always route each channel from the Redrum machine in Reason to its own aux in Logic, via ReWire. This means you get complete control over each sample and can mix it alongside the rest of your project in Logic. When I first started out, I would just do a basic mix of the drums in Redrum and send the stereo out to Logic for compression and FX. Then I started to set levels for my drum samples in Redrum, and run them through compressors and other FX in Reason, using the sends on the back of the Redrum."

"But both of these methods made no sense and as soon as I started buying more high-end plug-ins for Logic it only made sense to be running each channel individually and processing them with these plug-ins within Logic."



**2** "Now each sample from Reason has its own individual channel, you can manipulate them with plug-ins and send them to buss' for extra editing. I like to send the entire kit to a buss and compress it as a whole, sometimes doing a bounce so that you can compare the final mix with the compressed kit and without. Toms and hi-hats always get sent to their own buss for EQs and compression and then they feed back into the main Drum Buss. What I really like about running drum samples this way is the easy manipulation of individual sample lengths and gates, as well as velocity and tone editing that is possible in the Redrum machine."



**3** "You don't need to program the drums within Reason itself, MIDI is sent between Logic and Reason as well as audio. You can create an external MIDI channel and then select the plug-in within Reason that you want to control, much the same as wiring up a hardware synth and controlling via Logic. The MIDI editor within Logic is excellent and works in exactly the same way with Reason as it would do by controlling an EXS24. Creating arrange channel tracks for the aux channels is probably the last piece in the puzzle – you need them in order for Logic to see them as audio channels when it comes to doing an export of the stems."



## **Gear-wise, is it what we see here today that created the album so far?**

"The [Roland] SH-101 is brand new and I'm going to use that to replace the parts on the tracks where I used the TAL Bassline plug-in because it makes a big difference to the sound using the real analogue hardware. I find that I run everything through soft synths when I'm writing and creating ideas, then I'll fire that MIDI through the kit like the Dave Smith Prophet-08 and twiddle with the controls. The ADSR is a big thing for me, using simple tweaks while the track is playing to create movement and then chop sections together, using automation and that sort of thing."

## **Are you a gear head, always on the look out?**

"No, not really, I'm actually quite particular. Although I trust reviewer's opinions, I do need to get hands-on with stuff in other people's studios or shops before I know if gear is for me or not. The thing I have my eye on now is the SSL X-Desk and the API stuff because I really love the Waves API and SSL software stuff so I really want to get hands-on with it in the hardware."

"The API 560 is just amazing, I love it. I'm fine with other people doing the final mixes, but eventually I'd like to be taking the tracks 99% finished to the mastering guy. Slowly this is happening and I'm beginning to trust my mixes more and more. I'm learning all the time and when I listen back to some of the old demos and mixes I did, I can tell it's still me but it's amazing to think that that was what I thought sounded fantastic and now I think it just sounds average."

## **Do you worry that the home-grown innocence might be lost if you get too much into gear?**

"Yeah, I have to remember when I go to big studios that I've managed to do a track with Kylie using really quite basic gear. I think I just focused on the music side rather than the tech side. If you're happy to go into a big studio and mixing on an SSL G-Series that you've never used before then fine, but I'm happy being on my small set up and mixing in the box with what I've got. There's so many more people doing it all themselves now with these basic setups, but I don't consider this a bedroom studio anymore because even though it's encroaching on my lounge, I'm getting some nice bits of pro kit."

## **You said you're getting a new Mac too?**

"Yeah a twelve-core beast! I can't wait to not have to worry about CPU problems and core overload and avoid situations where I say to people not to do another take or when I won't add a certain part in case the computer crashes. So when I get the twelve-core I can donate my old studio machine to my mum [laughs]."

## **Were you making music in bands before the production side took off?**

"Yeah, I did all that and I studied saxophone as my main instrument. In fact, I studied Jazz Sax



### **Edirol PCR-800**

"Frankmusik gave me this MIDI controller keyboard, because for some reason he couldn't get it to work, but I don't use any of the on-board controls."

### **Moog Little Phatty**

"All bass and lead sounds come from the Little Phatty because it's so easy to use, everything makes sense."

### **DSI Prophet-08**

"Sometimes I do some effects through this but it's mainly for the poly stuff. It replaces the need for about four different soft synths all in one piece of kit."



#### Adam A7s

"These Adams have really served me well, but I don't know if they're right for me in the long run. I still need to find the perfect monitors."

#### Korg DS8

"This does cheesy sounding horns and bells really well and was actually used quite a lot on the Ellie Goulding stuff. It doesn't have much in the way of control, but I still use it a lot."

#### Roland SH-101

"I got this for £500 from eBay – I won it at the last second. I bought it to replace the TAL Bassline software plug I'd been using to emulate the SH-101."

#### Fender Rhodes

"I found this on Gumtree and it's one of my favourite things in the studio. It's so nice to just have a real Rhodes."



## ON THE DVD: Starsmith on...

1



### Salt Skin

Starsmith takes you through how he wrote and recorded the parts to this final track on the Ellie Goulding album *Lights*.

2



### Vocals

FM get the insight into how Starsmith recorded, edited and mixed Ellie's vocals to get the perfect vocal sound.

3



### Gimme A Break

Starsmith mixes and adds live instruments to a sample-based original.

4



### Stem Mixing

We see how using stem mixing enabled Starsmith to solve some of his mix issues and get his final mixes perfect.



performance so that what I was really focused on until I completely moved to the other end of the scale with the whole Dance thing.”

**Is there gonna be some sax on the album?**

“Yes! In fact there was sax on Ellie’s album but Spike [Stent] brought in down when he mixed it. [laughs] I can hear it though, buried in there. There’s a Hall & Oates style track I’ve done on the new album though which the middle eight is just going to be pure, full-on sax solo.”

the way to do that. I was still doing session shows up until August last year. There was no money for me from all the work I’d done with Ellie until she got signed then I got my advance for producing and my own deal. There’s a massive amount of time between getting signed and getting paid too. It can take up to three months for record labels to pay you now and you can end up doing remixes that aren’t accepted.”

**How are you finding working with majors? You’ve**

**Are you able to operate in the DIY approach or do you have to be careful?**

“I have to be careful now with my Twitter and things like that and if I do a bootleg there’s a chance that if the original artist hates it, they might come after you. But nine times out of ten it just helps promote the artist that you have bootlegged.”

**What about MySpace, is it still important?**

“The label has created a nice design for my MySpace, but for me, MySpace is kind of nothing now. SoundCloud is there for me at the moment, I get tracks from people daily and it’s a nice interface and really easy to use. Twitter is also great for getting at me directly and so much insane stuff has happened directly because of Twitter.”

**So if you could buy one piece of equipment what would it be?**

“It wouldn’t be a single piece, it would be the SSL X-Desk and the APIs. But the APIs are about £600 each I think and I need eight of them! So we’ll have to see how well the album does, but that’s the gear plan. For the time being when I get the new Mac I’ll be set up well with my Waves bundle because I won’t have any CPU problems, fingers-crossed.” **FM**

**WANT TO KNOW MORE?**

For all the latest news, releases and DJ dates, take a trip to Starsmith’s official MySpace page at [myspace.com/starsmithmusic](http://myspace.com/starsmithmusic)

“I have to remember when I go to big studios that I’ve managed to do a track with Kylie using this really quite basic gear”

**Going back five years, could you have imagined all of this happening?**

“Oh no, not at all. Even one year ago if someone had told me that I’d be working with, and have met with some of the people I have, I would never have believed them.”

**So what was your plan then before everything took off with Ellie?**

“I thought I was just going to be a music teacher. The degree I did was straight forward music at Surrey University and they have a high rate of employment in teaching and I was very happy on

**grown up with the new model of the music industry – are the labels up to scratch now?**

“I’d say 90% of the people I’ve encountered at labels really have a passion for it and they also know what they’re doing. I think the days of signing any old crap and all the money frivolously being spent is gone.

“Now that labels need hits more than ever, it’s started making them really care about the music again and employing passionate people. When the label get in contact with me about a remix they know what they want and they’re asking me, hopefully, because they like what I do.”



The sE2200A was used on a lot of Ellie Goulding's vocal recordings





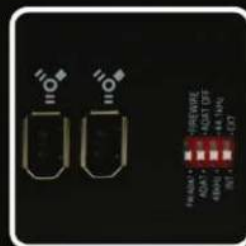


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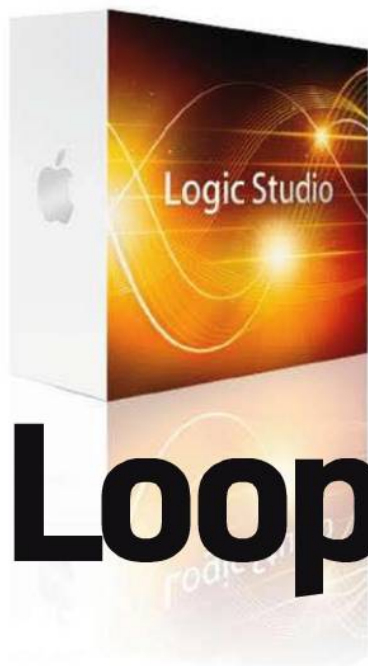
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## LOGIC ESSENTIALS



# Get Creative with Apple Loops in Logic 9

Apple's Loop Browser is a remarkable resource but, due to its drag-and-drop nature, most of us tend to think of it as a glorified sample library. This month, **Jono Buchanan** shows you how to unlock its potential via a variety of Logic tricks

**T**he Loop library within Logic's Media tab is a huge sound database whose content swelled dramatically when Logic 9 was released last year adding, among many other things, a collection of vocal phrases to

afford even the shiest, most 'instrumental only' producers the opportunity to add meaningful vocal performances to their tracks. If you're ambitious to strive for new sounds, though, I know what you're thinking. Something along the lines of

## THE EXPERT

**Jono Buchanan**  
composer,  
producer



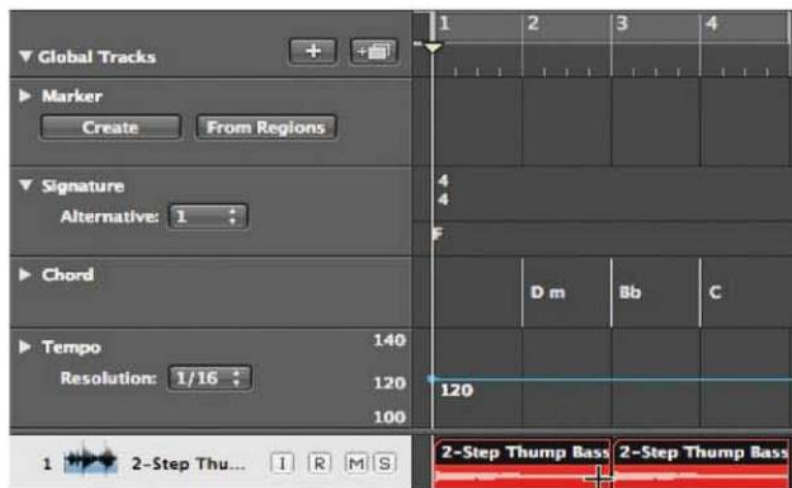
Jono is a producer and composer. If you want to check out his talents, have a listen to Professor Penguin's album *Planes*, available now through iTunes.

'yeah, but everyone who owns Logic owns these loops', right? Well yes, that's true and for those of us who like to ensure that our tracks are as unique as possible, turning to a library to which so many have access might not seem that appealing.

However, that's to ignore Logic 9's feature set which, when it comes to warping, enhancing or merely editing the loop library, is so fully stacked that there is scope to not just tweak these phrases, but change them so completely, they'll bear little or no resemblance to their original versions, thereby opening up new corridors of creative opportunity.

## Apple loops

As you'll probably know, Apple Loops are tagged with tempo and key information which is why, if you're looking to drag one into a project you're already working on, even the auditioning process might render the sound of a loop strange. Within Logic's global tracks, which can be accessed via the 'triangle' icon above the main track list,



Global chord tracks send transposition messages to your Apple loops



## Warping Your Loops

One of the most fun and creative ways to turn Loop Browser content into 'your own' is to run it through the wealth of options afforded by Flex Editing. In a way, the best place to start is to choose a dry, fairly straight drum loop, partly so you can really keep tabs on the development of a loop through a few stages and partly because the simpler the original material, the easier it is to congratulate yourself for its transformed sonic qualities later! On the DVD, I've done precisely this, starting with a basic groove entitled 'Music Video Drumset 31', which I've dragged onto Audio Track 1.

I've then switched on the Flex editor and grabbed the Tempophone algorithm, dropping the Grain Size in the Inspector pane to just 0.86ms, which gives it a really crunchy quality. Then, I've simply dived in, creating Flex Markers and dragging these left and right to create stretched slices which variously elongate or shorten. When I'm happy, I've bounced this down as a new file, which you can hear on the DVD: Flex Warp Tempophone. Then, I've imported this file onto Audio Track 2, switched Flex on again and selected Slicing Mode. Once the analysis is complete, I've simply quantised this file to 1/16th notes, just to tidy up any rhythmic problems created by the previous Flex editing. Listen to Quantise 16 to hear the

result. Then it's time for some speed-based Flex Editing so, again, I've imported the most recent loop and Flex Edited it again, this time using the Speed algorithm, pulling Flex Markers around as before, which you'll hear through file: Flex Warp Speed. I've re-imported this file too and again, re-quantised it to keep the timing strict, as you can hear here: Quantise 16s

again. I've run this file down with the click track on so you can hear where the metronome beats fall. Now my file is sounding great, with some wonderful glitching going on but the process has been semi-random so far and I want to grab a little more control. So, having imported the most recent file again, this time I've used the Scissors Tool to manually chop it

up and I've rearranged bits to ensure that the looser rhythmic passages are replaced by stronger down-beats. There's a glitch in the final bar I really like, so I've copied that to a couple of other spots too – listen to Manual Chop. Having imported the Manual Chop file, I'm then chopping it once more, this time so that I can create real-time Speed Up/Slow Down

effects, which can be added by toggling the Fade In/Out functions in the Inspector: Speed Up/Down. Once a few choice speed variations have been created, the last thing to do is to run the warped loop under the original. I've put the latter in for one bar before the warped underloop starts playing so you can hear how far it's come: Warp+Original.

### Flex It

Import, warp, bounce, re-import, re-warp. Keep going and you'll get something great.

### Turntable Effects

Add some realtime speed up/slow down warps via the Inspector.

### Layering

Once you're done, run your warped loop under the original!



| Name                  | Tempo | Key | Beats | Match        | Fav |
|-----------------------|-------|-----|-------|--------------|-----|
| Eastern Sitar 01      | 100   | A   | 8     | 60%          |     |
| Exotic Sitar 01       | 109   | C   | 8     | 89%          |     |
| Middle Eastern Oud 01 | 139   | D   | 8     | 60%          |     |
| Orchestra Strings 01  | 140   | E   | 32    | 46%          |     |
| Orchestra Strings 02  | 120   | C   | 16    | 58%          |     |
| Orchestra Strings 03  | 140   | C   | 8     | 71%          |     |
| Orchestra Strings 04  | 121   | D   | 16    | 83%          |     |
| Orchestra Strings 05  | 125   | C   | 16    | 92%          |     |
| Orchestra Strings 06  | 105   | C   | 16    | 85%          |     |
| Orchestra Strings 07  | 110   | C   | 16    | 90%          |     |
| Orchestra Strings 08  | 110   | C   | 34    | 91%          |     |
| Orchestra Strings 09  | 90    | F   | 1     | Song Key     |     |
| Orchestra Strings 10  | 95    | E   | 1     | Original Key |     |
| Orchestra Strings 11  | 110   | C   | 1     |              |     |
| Orchestra Strings 12  | 90    | E   | 1     |              |     |
| Orchestra Strings 13  | 105   | A   | 1     |              |     |

Don't forget you can audition loops in multiple keys in the loop browser

you can specify the key for your song. If you're working with instruments and self-recorded audio tracks alone, this isn't necessary but if you're intending to make Apple Loops a significant part of your overall

track, this could be useful, as when you drag and drop a loop with key information, or when you're auditioning loops in the Browser, these will play back in the song key. It makes sense that pitched loops

to play loops back in their original key, in the song key, or in any chromatic key you like from the drop-down list at the bottom, so checking whether a loop will sound convincing is easy. Obviously, the tempo of

a loop will take of itself, snapping to your project's bpm automatically.

## You can transpose individual regions to match the chord changes of your track

'close to' or in the right key will sound best by default as the real-time pitch change required to get these loops to fit is less than for loops in keys further away from your root note. When auditioning, you have the option

within global tracks which effectively send messages to each region to effect transposition changes or, more easily, you can simply click on each region and transpose it up or down in the playback bar.



Head to: <http://bit.ly/aOi2QR> for audio examples for every tip and trick mentioned on these pages.



# Keep It Creative

## Subtle and not so subtle Apple looping

Hopefully by now, if you hadn't grasped it before, you'll have realised the value of the Loop Browser as a source of potentially creative exploration. In fact, there's no doubt that many an Apple Loop will have made it into a professional production as, even via the drag and drop approach, if you build a track around a loop of any description, it's hard to then replace it with something which will sit quite as well in a track. The beat loop from Rihanna's smash hit *Umbrella* is an Apple Loop, for example, and it would be interesting to know if that's how it started its role in that track – as a rhythmic foundation which simply couldn't be matched later on. All of which begs the question – does it matter if you use these loops in their original form? The answer is 'of course not', though I'd seriously warn against dragging and dropping multiple loops in their original form to form all or even the majority share of any one of your productions, simply because I don't think interesting music is created simply by rearranging the work of others. As I hope this month's tips have shown, using one or a couple of loops underneath a track of otherwise original elements is fine but the potential to shift this material into new, uncharted sonic territory is so interesting and creative, that unique results are but a few button clicks away. As ever, I urge you to get creative!



The main drum loop from Rihanna's *Umbrella* is an Apple Loop: 'Vintage Funk Kit 03', to be exact



## Vocal Harmonies

The vocal phrases in the Loop Browser provide a useful way to get vocal performances into tracks where you don't have a singer available. There's no reason why these phrases can't be harmonised too, to provide a richer, more personalised sound. On the DVD, you can hear how I've done precisely this, first by building an extremely basic backing track around one particular phrase. As this phrase is going to be harmonised, I need to make sure it's bang in tune, so I've put Logic's Pitch Correction into the first insert slot, which I've then set to perform in C major, my track's key. This is the

first clip on the DVD. I've then used the Track Duplicate function to produce a mirror image of this track on Audio Track 2, onto which I've copied the vocal file as well. Then, I've simply transposed the duplicate vocal file down three semitones in the playback bar.

### Sweet harmony

In theory, this should give me some harmonies which match the key (G will become E, F will become D etc) and some which don't (E becoming C#, for instance) but because the Pitch Correction plug-in was copied to track two as part of the track

duplication, only notes relating to C major will 'sing', the result being a harmony which matches the key of my track for all notes, as you can hear in clip two. In clip three, I've adjusted the EQ and level to make the sound quieter and brighter, which removes some of the nasty aliasing which comes from the real-time transposition. However, there's still a weird gender-bending effect going on, so I've added Vocal Transformer to the insert chain for the harmony and added +3 to the Formant dial. The result is a sweet harmony which fits nicely and sounds fairly natural.



Obviously, entire regions might not respond well to a single transposition value as you might, for example, have a single region which needs to play two different chords in a single bar. In that case, simply split the region with the Scissors tool and transpose each one independently. In fact, the Scissors tool will become an invaluable weapon in your bid to turn Apple Loop content into 'your own', as the ability to extract just the notes and/or rhythmic properties from particular sections of regions is a great way to simplify or complicate them to your demands.

### Get effected

Another great way to personalise the content in the loop browser is to get busy with effects. Adding reverb or simple delay patterns to a file won't necessarily shift it into new sonic territory but clever use of filtering, distortion, bitcrushing, ringshifting, pitch modulation or even gating just might

If you're looking to make your drum parts bigger, the percussion sections are also hugely effective. Dropping a quiet shaker, tambourine or conga part in under your programmed parts often works a treat and again, even if you put in parts which you intend to replace later on, you'll at least be able to figure out whether or not the idea you've had is likely to work or not.

In the boxes on these pages, I've looked at ways in which you can use Logic's features to make this content your own, which I hope will prove inspiring. So, if you're one of those who've decided that using the Loop Browser content seems like an uncreative way to make music, hopefully you'll consider a re-think. **FM**

### LOGIC TIPS NEXT ISSUE

Jono will return in voiceover and video form to lift the lid on yet more Logic features. Going on holiday? Worried you'll miss it? Subscribe, people! **FM234** on sale 25th November

## Resampling

If you like the feel or the overall sound of a particular loop, but just wish you could re-program the pattern it's playing, try thinking beyond the 'audio nature' of the Loop Library.

Yes, you could import a certain loop and spend forever chopping it up and moving it around to create the pattern variants you can hear in your head, or you could cut to the chase by converting the audio file into a new sampler instrument. To do this, simply control-click the loop you like and select 'Convert To New Sampler' track from the drop-down menu. The resulting dialogue box allows you to let Logic itself figure out the Transient points and convert these into a REX style sampler sequence.

Conveniently, the original pattern is mapped by default, so you can hear that the process has been successful before re-programming the pattern from scratch or developing it to create variants of the original, which is particularly useful if you're editing drum parts and want to create a fill or alternate rhythm from the same sounds. This is similar to using Propellerhead's ReCycle, but is completely contained within Logic.

### EXS success

On the DVD, you can hear the original loop I've converted to a sampler track in Logic, as well as a four-bar pattern I've developed from that sound set. In the final clip you can hear another of the advantages of using the EXS24 to bring Loop Browser content to life – the sound-shaping tools! I've set a couple of LFOs up to control tone and pitch and the result gets the loop away from its Rock origins. Plus, as you well know, there are endless possibilities when using the modulation section.

Once you've converted a sample to MIDI and can access its elements with your favourite quantising and MIDI editing functions too. There's nothing to stop you trying similar things with any loop – think of the vocal mash-up possibilities, for instance.





# The Science Behind Preamps

Preamps are a studio staple, but what exactly is their role and do you need one in your setup?

**Greg Scarth** explains all you need to know...

**Y**ou probably know more or less what preamplifiers do. Commonly known as preamps or just pres, these devices are used to amplify

low level signals and prepare them for further processing. But there's a lot more to it than that, and if you want to get the most out of your preamps, there are a few important things you should consider.

## Pre prepared

In the studio, when we talk about preamps we usually mean microphone preamps. As we discussed in our *Knowledge Base* feature on microphones back in *FM212*, mics produce a very low voltage signal that must be boosted before it can be recorded, mixed or processed. Whether you're recording or just mixing a couple of mics for a live PA, preamps are specifically designed to amplify the low level output, bringing it up to line level. At their most basic, the settings are simple: a gain control to adjust the level of amplification and a peak level indicator to warn about the onset of clipping.

Most mic preamps also include switchable 48V phantom power for

condenser mics. As things start to get more complex, preamps may feature additional options such as phase inversion settings, pads (fixed, switchable attenuators on the input to reduce the level of a hot signal before it hits the gain stage), filters and line level gain stages to boost the signal further after the preamp stage. Although not strictly part of the mic pre itself, more advanced units may also include features such as EQ, compression and noise gates in order to offer a complete channel strip.

Walk in to any studio these days and you'll almost certainly find a selection of rack-mount outboard preamps. This wasn't always the case. Back in the '60s and '70s, most studios would simply plug microphones directly into the mixing console's inputs, using the preamps built into the channel strips. The lack of options was made up for in convenience.

Over the last couple of decades, the balance has swung in favour of high-quality external preamps which provide a number of different options from clean and neutral to dirty and coloured. In general, consoles with neutral, transparent preamps and summing

stages now tend to be favoured, providing a blank canvas which can be coloured using a variety of standalone character preamps. At the risk of making a sweeping generalisation, most producers would now prefer to have various different preamps on hand rather than a full console of identical units. The availability of classic preamp designs as standalone units means that producers can pick and choose the best sounding option for each recording task.

Although we're going to concentrate on microphone preamps, very similar units are used for a variety of other purposes in the studio and in live setups. Instrument amplifiers, for example, typically consist of a preamp hooked up to a power amp. The preamp colours the signal and brings it up to a level high enough to drive the power amp stage. Line level amplifiers and internal gain stages operate along broadly similar electronic principles but are designed to amplify higher level signals and so offer lower maximum gain.

## Colouration

So far it all seems pretty straightforward, right? The preamp makes the signal louder so we can feed it to the next piece of equipment or the next link in the signal chain. Unfortunately, that's only half the story. Practically every piece of studio equipment colours the sound to some extent and preamps are no exception. So what's actually happening to affect the signal? Let's consider what the ultimate clean, neutral preamp would offer: essentially, it would increase the level but leave everything else untouched. Such a perfectly neutral preamp doesn't exist, so there will always be some level of colouration, from mild distortion to noise, inaccurate reproduction of transients, uneven frequency response or waveshaping and mild compression from clipping. The nature of this inaccuracy determines the characteristics of the preamp, from slightly coloured to downright dirty.

Is there such a thing as a transparent preamp? Yes and no. 100% accuracy and neutrality are impossible to achieve, but certain preamps are known for being relatively neutral. The other important thing to consider is that preamps are adjustable. It may seem like a banal statement, but the sound of any preamp can change dramatically over the range of its settings. It might often be tempting to push the gain close to the clipping point in order to maximise the signal to noise ratio, but in some cases the sound may not necessarily benefit. Some preamps break up pleasantly as they approach clipping, whereas others start to sound bad when pushed hard. Some preamps will sound agreeable at high gain but others may reward you with harshness

Preamps vary in terms of control from simple level adjustment to adding pads, filters and phantom power





and noise. Resorting back yet again to the well-worn cliché, it's important to trust your ears and find a setting which offers the best compromise between neutrality, colour and signal to noise ratio.

## Types of preamp

If different preamps can sound so different, what exactly affects their sound?

Electronically speaking, there are dozens of variables which we need to take into account. The most obvious defining factor is whether the circuit is based on solid state components (like transistors and microchips) or valves. Generally speaking, all the usual rules of thumb apply: valve preamps tend to be warmer, less accurate and more coloured than their solid state counterparts.

Many preamps also include transformer-coupled inputs and/or outputs, which also colour the sound. Transformers are typically used to unbalance or balance signals, block DC signals, balance impedances or adjust voltages but they also tend to impart a distinct sound to the signal, saturating at higher levels and adding harmonics. All other things being equal, transformerless designs tend to be more neutral than transformer-coupled equivalents. As a result, some modern preamps include transformers but allow them to be bypassed in order to make the sound cleaner. It's easy to get bogged down trying to describe preamps in subjective audiophile terms but ultimately the best sense of each unit's sonic characteristics comes from experience.

**The sound of a preamp can change dramatically over the range of its settings**

## Impedance

Way back in *FM209* we discussed the importance of 'matching' source (output) and input impedances in order to maximise voltage transfer and avoid signal degradation. Matching is something of a misnomer here, since the most common solution is actually to bridge the impedances by ensuring the input impedance is at least five times higher than the source's output impedance. Like any other connection, the impedance match between a microphone and its preamp can affect the sound significantly. However, most modern low-impedance mics will function quite happily with most modern pres. Even so, it's still worth considering the impedance of

## "How Should I Record My Synths?"

Over the years, this one simple question has graced the *FM* mailbox more than any other.

The good news is that the typical signal chain for recording synths is pretty straightforward. You're probably going to need some gain, so you'll need to run the signal into a preamp rather than a line input. And if you're still unsure whether you should be running your synths through a DI, the simple answer is: yes you should. One of the biggest misconceptions about recording synths is that the line out signal can simply be plugged into the mic or line inputs of your audio interface and everything will work perfectly.

In some cases that's true, but more often than not you'll find that using a



DI box gives you much better results. Most modern synths put out a nice strong signal and require very little gain, but output impedances are usually still high in comparison to

microphones or line level equipment. Just like guitars and basses, synths can benefit greatly from being fed through the high impedance input of a DI box. Running directly into a low impedance input is likely to result in uneven frequency response and a weak sound.

At the very least, route your synths into your audio interface's hi-Z input. Ideally, consider investing in a couple of DI boxes and finding what works best. Stereo synths will need a dual mono preamp and a dual mono DI box, but the results are worth it.

That simple combination should ensure you capture every last detail. Anything less than that and you're probably not making the most of your synth's signal path.

your mic pre input. A large number of modern preamps offer switchable input impedances, allowing users to experiment with loading combinations in order to get the best sound. Ribbon mics in particular need special consideration.

Many older models were designed with 300 output impedance and intended to be matched to 300 inputs. Newer models, on the other hand, often benefit from much higher input impedances. Specialist ribbon mic preamps may offer input impedances up to 20k and beyond.

## DI boxes

Despite the name, mic preamps aren't just used to amplify microphone signals. Electromagnetic pickups found in guitars, basses and electric pianos offer a low level output which requires amplification to line level and microphone preamps

are perfectly capable of boosting the signal of an instrument in just the same way that they take a low voltage mic signal and bring it up to line level. However, the high output impedance of these instruments means that connecting directly to a preamp input is likely to result in a highly undesirable uneven frequency response.

A DI (direct injection/input/interface) box offers an easy solution, combining a high impedance input (usually greater than 500k, often 1M or more) with a preamp-friendly low output impedance. DIs also convert unbalanced signals to balanced, meaning that the signal can be transmitted much further without signal loss or noise. There are two types of DI box to choose

from: passive and active. Passive DIs typically consist of a simple transformer, requiring no power and offering very little in the way of adjustment. Some may include basic additional options such as a ground lift switch or signal splitter.

Active DIs, on the other hand, require power and operate (as the name suggests) on active circuitry. As a result, they may offer more advanced features such as pads, high-pass filters, phase inversion and even adjustable gain stages. Neither design is inherently better than the other, although active DIs typically offer marginally more accurate frequency response. Generally speaking, more expensive units will offer more accurate frequency response and less coloured sound, with the obvious exception of units specifically designed to colour the sound. Many preamps and interfaces feature high-impedance (hi-Z) inputs as standard to allow instruments to be plugged in directly. These essentially route the signal through a built-in DI unit, but the quality of the results can vary significantly so it's a good idea to try a dedicated DI box even if it seems like your interface can do the job.

## Conclusion

It's no exaggeration to say that preamps are one of the most important elements of any studio. From a simple acoustic recording to a synth masterpiece, careful selection and use of preamps can make the difference between a clean, neutral sound and a coloured, character-filled tone. **FM**

## KNOWLEDGE BASE NEXT ISSUE

Next time around, *Knowledge Base* takes a look at the history of Ableton Live. *FM234* – on sale 25th November



IN THE STUDIO WITH...

# Trentemøller

Denmark's premier purveyor of pristine dark Electronica tells **Hamish Mackintosh** how he gave up ACID for Ableton to help fashion his new album, *Into the Great Wide Yonder*







# Trentemøller

and intriguing vocal contributions (including one from head Guillemot, Fyffe Dangerfield on the sumptuous *Neverglade*) all saturated in wonderful analogue warmth. Anders' production room studio is strewn with enough toy pianos and musical objet d'art to keep even the most inquiring musical mind happy while everything is invariably filtered into the studio's Apple Mac command-centre before being sent out to a variety of analogue places again.

Armed only with a humble digital recorder and a genuine love of *Into the Great Wide Yonder*, FM spoke with the charming Anders Trentemøller to uncover some of the processes involved in the album's writing, recording and mastering and also try and find out the secret of just how he makes his electronics sound so damn nice and warm.

**FM: Can you talk us around what we're seeing in the rather cool photos of your studio?**

**Anders Trentemøller:** "It's a bit messy I must admit. I have a lot of weird little musical bits and pieces... there are toy pianos, glockenspiels, Stylophone, some music boxes and a couple of old original Kaoss Pads. I have a lot of old guitar pedals too like the Fender Blender and I actually have a pedal called Shoegazer, which doesn't actually sound that great but I had to buy it for the name!"

"Of course there are guitars, bass, tambourines and some percussion stuff too."

**What handles the actual recording side of things?**

"I have an API Lunchbox that I use for all my recording when I'm doing stuff here in my home studio. I've also got an Equinox summing amp that I like to put everything through when it's coming out of the computer to give it a nice afterglow before putting it back.

"I'll often put some of the drums and keyboards back onto my old Revox 77 tape machine or sometimes I'll even feed things through an old Tascam cassette-recorder as it gives it that wow and flutter that I really love. You can only really get that effect when there's an unstable tape thing going on!"

**One assumes there are some more modern components within the recording chain too?**

"I have a lot of the Apogee soundcards because I have 32 stereo outputs into the summing amp. I've got a Big Ben Master Clock and three of the DA-16Xs and an AD-16X. I got one of my friends to set it all up for me as I don't actually fully understand how it all works... just how to run it all."

**There's no small irony in the fact that we've spent years evolving digital recording technology only to try and recreate wow and flutter again, is there?**

"[laughs] That is quite funny... but what I like to do though is to try and mix the warm, vintage sound of tape with the colder electronics. So, some of the sounds I simply keep in the computer but most of the bass and drums, especially if I record real drums,

**F**ollowing the huge success of his debut album, *The Last Resort*, coupled with his meteoric rise to the upper echelons of the remixing ranks, Anders Trentemøller could easily have been forgiven for basking in the glow of his successes and resting on his not inconsiderable laurels and acclaim. Instead, new offering *Into the Great Wide Yonder* sees Trentemøller spin off in myriad new musical directions and perfectly illustrates a musician and producer willing to follow his muse and push himself and his art in search of new sonic pleasures. *Into the Great Wide Yonder*, itself is a

bewitching four-am Electronic labyrinth of an album. From the opening 606/808 tom-tom pulses of *The Mash and the Fury* or the haunting first single, *Sycamore Feeling*, Trentemøller creates a beautiful sense of synthesized otherness that goes way beyond the four-four template of the conventional dancefloor. In places, it's like David Lynch and Dick Dale with a Drumatix and some soft synths – in others it's just simply intoxicating.

In an off-white room (replete with off-white curtains and off-white floorboards) in his native Copenhagen, Anders Trentemøller has quietly and lovingly (although occasionally not quite quietly enough for his neighbours) created a genuine treasure of brooding electronics, pseudo surf guitars



I like to put through some preamps and stuff. I'll even do the same to soft synths, as sometimes they can sound a little bit too polished and clean, in a way."

**There's a real 'four-am' feeling running throughout the album...did working alone through the night present any problems in the recording process?**

"Actually, the biggest problem was my downstairs neighbour! Normally I make music at night but, even when I was trying not to be particularly loud the sound would filter downstairs [laughs]. I used headphones quite a lot just so as to not make too much trouble in the neighbourhood!

"I recorded most of the acoustic instrumentation at a real studio, as I think real drums and guitars might have been too much for the neighbours."

**Neighbours aside, any other hitches you encountered while putting the album together?**

"The biggest problems I had were because I do everything in Ableton Live. I'm not using it in the Session View as perhaps a DJ would but as a more traditional arrangement window...like you would use Cubase or Logic. The problem with that is that, if you have many tracks with a lot of plug-ins running, Ableton isn't actually that stable. So I would always try and back everything up under different names, which sometimes makes it a little bit confusing for me coming back to an old production because I may have called it something like *Working Title Final 4*.

"So, I think Ableton is a very cool way to make music but it just lacks that extra stability. Maybe if you only use the native plug-ins it might be fine but I use a lot of third-party plug-ins like UAD so it can be problem, even though I've got a very powerful Mac. I've found occasionally that the AutoSave doesn't actually save your project properly and that can be frustrating in the production flow."

**Does your more linear approach to Ableton stem from a previous DAW?**

"Actually, *The Last Resort* was all done in an old version of Sony ACID with SoundForge being used quite a lot for editing. I had to change to Mac as my old PC just crashed all the time although I do

## The Magnificent Seven

*FM* wondered whether it was liberating for Anders to be going out live with a seven-piece band after the intensity of recording the album alone in the small hours?

"We took the first album out with three of us onstage but the seven-piece band gives even more musical freedom. It's a good thing, really, to finally lose control of the music because, for me, it's not so important to replicate the songs exactly as they were recorded but rather try to transform them into more live-sounding versions. With the first album it was interesting to compare how the songs sounded on

the first gig of the tour with how they ended up sounding on the last gig.

"After sitting on my own for a year, I'm actually really looking forward to the collaboration and also getting the reaction from the crowd. Some things might work really well on the album but still need to be twisted and shaped for the stage.

"We have a couple of laptops but also an NI Maschine running in sync so that we can easily switch if

something happens to either of the laptops. Last tour we also had one hard disk synced to the clock just in case the back-up computer went down – that was all pre-programmed though and the great thing about Ableton is that you can experiment a little bit more. It lets you gear your set to the place you're playing, allowing us to be more up-tempo if we're playing a festival and maybe more involved if it's our own gig."



versions, they've got a mixer in it! Maybe I'll have to go back and investigate the new version if my Ableton keeps crashing."

**Can't let your mention of the wonderful UAD plug-ins pass without getting you to discuss how you use them a little further?**

"I use the UAD stuff a lot on remixes and I particularly like the Time Cube MkII for using on vocals because it's got a really special sounding short, slap-back stereo delay that's really hard to find in any other plug-ins. I also recently bought the Manley Massive Passive EQ plug-in that sounds incredible.

I don't have any hardware spring reverbs in my home studio though so I tended to use the Altiverb and the Softube Spring reverb because they have some of that '60s kind of sound...but I have to say it still doesn't sound quite as good as using the real thing.

"When I was mixing the album, I took all my stems to a big studio and we put it all back onto tape and they had an old Plate reverb in a big box that sounded perfect for the drums and the vocals. I do think that's definitely something that's quite hard for the software reverbs to recreate."

I tended to use the Altiverb and the Softube Spring reverb but I have to say it still doesn't sound quite as good as using the real thing

sometimes miss the features in SoundForge and ACID was so easy and quick to use."

**It has to be said that Sony has upped their game with the new version of ACID Pro.**

"I'd heard that. The MIDI back then was very basic and not all that great and finally, after seven different

For the drums, I use the Phatso a lot to put a little bit more grit into them."

**Is reverb still one of the areas where software can't quite match hardware yet?**

"Yes...absolutely. On the album I used quite a lot of reverb, especially spring reverb that I really love.

development really. When I was making the album I was listening a lot to surf music and the whole Phil Spector sound and that inspired me to experiment with spring reverbs on the snare and sometimes even a little on the bass drum just to make it fit more into the general sound. So, I was inspired by retro sounds but I still wanted it to sound electronic."

**Into the Great Wide Yonder perfectly illustrates how reverb can be used creatively to enhance traditionally Electronic music...was the judicious use of different reverbs a conscious decision at the outset?**

"I think it was just something that came about through the music so it was just a natural



# Fostex

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**Has your studio setup and/or your working method changed much between *The Last Resort* and the new album, *Into the Great Wide Yonder*?**

"With *The Last Resort* I was working much more with my laptop and I was mainly starting things off with a beat or some click sounds. This time I started off playing with a piano sound, trying to get the chord progressions right then finding some melodies before then taking the song into the

album. I think much of my music has this kind of atmosphere – Morricone and Badalamenti are both big influences on me. Maybe it's there are only vocals on four tracks – instrumentals often give more space to the listener so they can put their own pictures to the music?"

**Do you see yourself doing more soundtrack work in the future?**

E-mu sampler. So things have become so much better and more powerful and it's really easy to do things now but the crashes and software problems can still be very irritating.

"What I've learned to do is to limit myself to using the plug-ins and soft synths that I know really well... if you buy new software every month it can be quite hard to get properly into it. If I have a musical idea, it's important not to have to refer back to the manual all the time to find out how to do things."

**Did you learn anything new during the recording of this album that you'll take with you?**

"The biggest change from making the first album was that, this time around, I made stereo stems of everything happening in

each track so, for every track, I ended up with 20 or so stereo stems. I took them all into the mastering studio where we put them all into analogue tape, back into the computer then through some other vintage outboard gear.

"That whole tape thing really was something that I was very into. In a way, it glued some of the more electronic stuff together without changing EQs or anything... simply by putting it onto tape and back you could really hear a big difference with warmer, punchier bass. That's definitely something I'll do more of in the future."

**Tape was something that I was very into. In a way, it glued the more electronic stuff together without changing EQs**

computer. Sometimes it felt more like an old-fashioned singer-songwriter way of working before then adding the production because I really wanted it to be more than just a loop with some extra stuff added on."

**You wrote the soundtrack for a Danish movie, *What No One Knows*. Did that influence your writing, given the soundtrack qualities of your new album?**

"Many people have said that but I wasn't really thinking of soundtracks when I was making the

"Yeah, doing the score was a lot of fun. Also, it's a very lonely process making music as I do most of my stuff totally on my own, very much in the late hours. So, suddenly having to work closely with a Director and a Producer was quite good for me as sometimes you can disappear up your own ass!"

**Do you think the learning curve of some software similarly interrupts the creative flow sometimes?**

"Yes it does, although I think back to when I used to sit with an old Atari with 2MB of RAM and an

**What about hardware keyboards?**

"I use the M-Audio Axiom 61... it's a simple MIDI controller. When I'm on tour or DJing I use one of the new Akai LPK portable controllers, which are much cooler than the nanoKey Korg brought out with the weird keys. Also, when I program drums I always play them with a MIDI keyboard rather than write it into the computer as I feel it lets me get the vibe better. So, I always trigger the drums from the computer. I have a big sample library of my own drum sounds, which I can go through very quickly then load them into Ableton's Drum Rack.

"For me, it's always about sampling small snippets – never a groove. Maybe one hi-hat from here and snare reverb you maybe make into a percussive element. You can do some weird stuff just with the Simple sampler in Ableton Live."

**...and then add some live guitars for good measure?**

"[laughs] Actually, all the guitar on the album is me playing guitar on the keyboard. I'd then put it through my old Fender Twin amp and also a mini Marshall practise amp I've got – it still gives a sort of dusty over-drive sound to the guitars.

"I'm not the greatest guitarist so it was much easier for me to do it this way! A lot of people commented on how cool the guitars sounded on the album and, at first, I didn't have the heart to tell them it was fake." **FM**

#### **WANT TO KNOW MORE?**

*Into the Great Wide Yonder* is available on In My Room records. Visit [anderstrentemoller.com](http://anderstrentemoller.com) for more.



Roland's Gaia sits alongside plenty of sound toys in Anders' studio





## Thinking Inside the Box

Trentemøller works a lot in-the-box. But if *FM* was to have a sneaky look inside his plug-ins folder, what would we be likely to see? Anders spills the virtual beans...

"I use the Sony Oxford EQs a lot because they really sound great. On practically every track I use Saturation from URS that gives a nice tape-saturation effect. I try to use it sparingly so that it doesn't make all that much of a difference to the sound but it just gives it a little extra warmth. For the new album, I used the GForce M-Tron, which is just great and also the Oddity. The Oddity was actually one of the first soft synths I got back

when I was working with ACID so that's followed me through all the changes. Sometimes if you go through some synth presets they're often too busy with reverb or delays. They sound really cool when you hear them initially but when you add them to your production they often get lost in the sound. So, I do like the simpler, mono waveform soft synths, as good as they are, soft synths like Absynth can be way too big-sounding for my

music. On this album there are a lot of layers and that's sometimes a problem for me too, knowing where to stop. Having the discipline to know when to stop adding new things is one of the main difficulties of working alone.

"Of course, I get feedback from friends but there are times when you just have to kill your darlings and take it back to the initial idea that you came up with and what gave a track its spontaneous energy."





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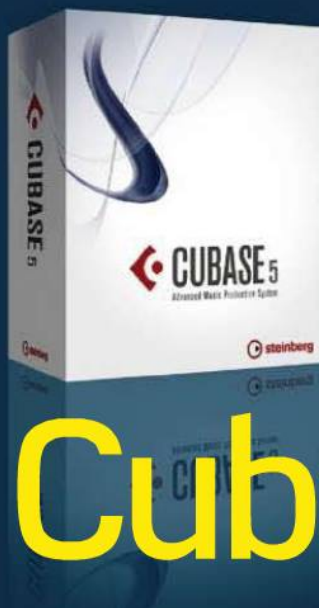
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## CUBASE ESSENTIALS



# Using MediaBay in Cubase 5.5

This month, **Bruce Aisher** returns to explore the deeper depths of the recent Cubase 5.5 update, take a peek at the newly overhauled MediaBay window, and ponder the role of media asset tagging. All in a day's work...

**G**iven the ever-expanding complexity of DAW production systems it's no surprise that software manufacturers have

been looking at ways of integrating the numerous types of media that proliferate in the modern software era. This extends from previously recorded audio, to sound effects, sample loops, MIDI files, VST Instrument

presets and onward into complete signal chain storage and recall. In the 'old days', making sure you could recall tracks and mixes was very much a pen and paper affair. Synthesizer patch saving and recalling was limited, and hardware parameter storage primitive. Given the integrated approach inherent in a DAW it is possible to recall tracks in their entirety (if they only use

## THE EXPERT

**Bruce Aisher,**  
producer,  
engineer



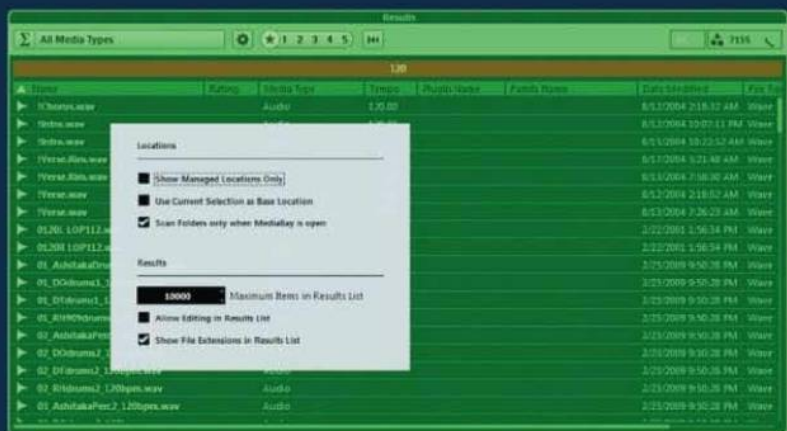
Bruce has been using Cubase since its arrival on the Atari ST in 1989. He's grown up alongside his favourite piece of software, sharing the ups (and downs) of the professional music world. The two are now inseparable.

computer-based resources). This also makes it possible to store commonly used settings and sounds for use in other tracks, and build on this with a large library of media from third-parties. Add to this the sheer profusion of effect and instrument presets and you have a possible recipe for disaster.

As part of their strategy to make Cubase more accessible to new users, and like many other manufacturers who see the need to harness the market requiring 'instant gratification', Steinberg are increasingly supplying additional 'tagged content'. Here we are going to take a look at how we can harness some of this power and more.

## Configuring MediaBay

**1** Like many aspects of Cubase, MediaBay's appearance can be customised depending on your needs. The 'Set up Window Layout' icon is located in the bottom-left corner of the MediaBay window – it's the leftmost of the three icons. Once open, the window allows you to activate or deactivate the various sections of the main window. It is



MediaBay could be your new best friend – easily wade through your media content



## MediaBay

Tag your media files for easy organisation and reference



# Introducing MediaBay

**2** MediaBay (accessed from the main Media window) is one of three windows (along with Loop Browser and Sound Browser) that make up the media file management system in Cubase (since Cubase version 4). The C5.5 update has seen a

cosmetic redesign, alongside some functional tweaks, but maintains a broadly similar layout to the previous version, although it can be tweaked to suit different uses.

The Results list at the centre of the window shows the media that meet your chosen criteria (more on this later), with a Filter section above and

Preview section below. The left-hand side of the window is devoted to locational information – where the media is to be found on your computer. To the right is the Attribute Inspector for tagging content (in a similar vein to MP3 tagging).

Any content that is monitored by MediaBay is added to an indexing

database. However, it's worth noting its structure is different from earlier versions, so Cubase 5.5 will need to rescan your system, and you may lose your previous tags.



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> An introductory tour of the MediaBay window in Cubase.

worth noting that many configuration windows in C5.5 do not now have an OK/Cancel/Apply button, but merely require you to click outside the grey editing area.

The second of the icons allows you to tweak the behaviour of MediaBay and is split between how the programme manages Locations (where the Media is found) and Results (how it is displayed) following filtering or searching. 'Show Managed Locations Only' minimises clutter and keeps the folder tree on the left focussed on storage locations that have been marked as searchable. 'Use Current Selection as Base Location' keeps the focus on one folder tree only. 'Scan Folders Only when MediaBay is Open' when deactivated will update the

media database in the background (except when recording or playing audio).



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> MediaBay preference selection.

## Scanning locations

**3** MediaBay relies on the fact that Cubase has built up an index of all the files that are searched or tagged before being able to make full benefit of its features. When first opened, MediaBay will try and scan your system using a set of pre-defined locations alongside a full sweep of your file system. In order to keep the database size down and search speeds up, it is worth ensuring that

only those locations that are worthwhile searching are in the locations list. This is simply a matter of navigating the file tree and un-ticking the box next to the disks, folder or subfolders not required. A white tick means that a folder and all its subfolders have been scanned, and an orange one that further scanning is required.

The icons themselves also change colour. A red icon denotes a scan in progress, light blue that scanning is complete, dark blue for folders excluded from the scan, orange for an interrupted scan, and yellow for those awaiting a scan. If you chose to remove a previously used folder from future scanning, you will be asked if you want it removed from the database.





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> Scanning files within MediaBay.

## Defining locations

**4** At the top of the Define Locations section of the MediaBay window there is a 'Rescan' button which will only really need accessing if you have made a large number of changes to a folder. Refreshing (found in a folder's

context menu) will update any changes made to tags for the selected folder.

Although it is possible to scan all your hard disks, you may find it easier to set up those folders you use most often as pre-defined locations for speedier access. These are essentially shortcuts in the manner of browser bookmarks. To do this, select a folder in the Define Locations section and then press the Add button. The Locations section at the top of the MediaBay

window is a quick way to switch between these 'bookmarks' and the arrow navigation tools work in similar manner to browser navigation functions.

The Deep Results button ensures searches delve into common lower-level subfolders when looking for media files. There is also a button for removing any previously saved Browse locations.



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> Defining 'locations' in MediaBay.

# Further Functions in the Results List

**5** To the right of the filter slider is the reset icon that returns the media selection and test search to its default state.

At the top right of the Results section is the progress indicator that shows when MediaBay is searching and how many results it has found.

The important next step is to use the media you have found.

Ultimately, this depends on the track

type. Audio and MIDI can be dragged onto the main Project page or inserted by right-clicking on the file and selecting 'Insert into Project'. Double-clicking also works here, and will create a new track if one isn't selected already. This works in a similar manner for Track Presets and Instrument Tracks.

Files can be deleted from the Results window (and copied or moved by dragging to another location), but be careful here as they

will disappear completely from your computer once you empty the Trash or Recycle Bin.

A nice feature for finding similar files to the one highlighted is found by right-clicking and navigating to the 'Search for...' item, whereupon you select one of the current file's attributes as a search item – great for previewing similar samples.



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> Using your media in a Project.

## Results list and text searching

**6** The Results section in the centre of the MediaBay window is where much of the action takes place such as text searching and basic filtering. The lower section of the window displays a list of any media that is in the selected folder, or the result of a search or filtering operation. The Results list can be configured to display varying amounts of information for each media file. Click on the 'Cog' icon in the middle of the Results toolbar to customise these.

To begin with you may want to narrow down the media you are viewing depending on the type of file. Clicking on the text field at the top left of the section (next to the default  $\Sigma$  icon) allows you to choose one or more media types to display.

The icon and text will update to reflect your filtering choices. Text searching to further narrow-down the Results List is achieved by simple typing text in on the search line. You can also use Boolean operators such as AND (+), OR(.), and NOT (-) with or without parentheses or quotes (") for more complex searching.



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> Using the Results list and text searching for media.

## MediaBay rating system

**7** Given the massive range of media files you may have, and noting the limitations of the old grey matter in remembering the best ones, you may want to use the MediaBay Rating system (much like the one in iTunes) to flag those files that you like most. If you have already added ratings to any of your media files you can drag the rating slider (indicated by an asterisk and numbers one to five) to





adjust the threshold. Adding or updating ratings can be done from within the Results list by dragging in to the Rating column.



DOWNLOAD VIDEO AT <http://bit.ly/9eCnmX>

> Rating your media for easier searching.

## Logical and attribute filtering

8

Besides the basic media filtering in the Results list it is also possible to probe a lot deeper using the aptly-named Filters section that sits above it.

First, we have the logical filter that allows you to select an attribute, a condition and a text value. The attributes are extremely wide-ranging. Conditions work in a similar vein to most OS file searching engines and uses terms such as 'contains', 'omits', 'equals' as well as numeric comparison operators. Additional logical filter terms can be used by pressing the '+' icon at the far right of each line.

Attribute-based filtering brings up six criteria sections. All you need to do now is select those attributes you want your media file to satisfy. Clearly this generally works best if your media library is neatly tagged, but becomes more useful the more you integrate it into your daily workflow.



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> Using the advanced filtering in MediaBay.

## Previewing in MediaBay

9

In my book, all the functionality of MediaBay wouldn't be worth it without the Previewer window down at the bottom. When selecting audio files, besides the mini transport controls, you get the option to automatically play any selected audio, synchronise playback controls with the main project transport, and most importantly 'Align Beats to Project', that does its best to play a loop in sync with the project tempo. Brilliant, and very useful.

MIDI files and MIDI loops are also catered for by sending the data to your chosen MIDI output. This is taken further with VST presets where you can choose to preview using notes received from an assigned MIDI input, Computer Keyboard Input, pre-recorded MIDI file or the built-in Memo Recorder (a basic MIDI sequencer).

Ultimately, this is all very flexible, but you are best finding your own preferred way of working.



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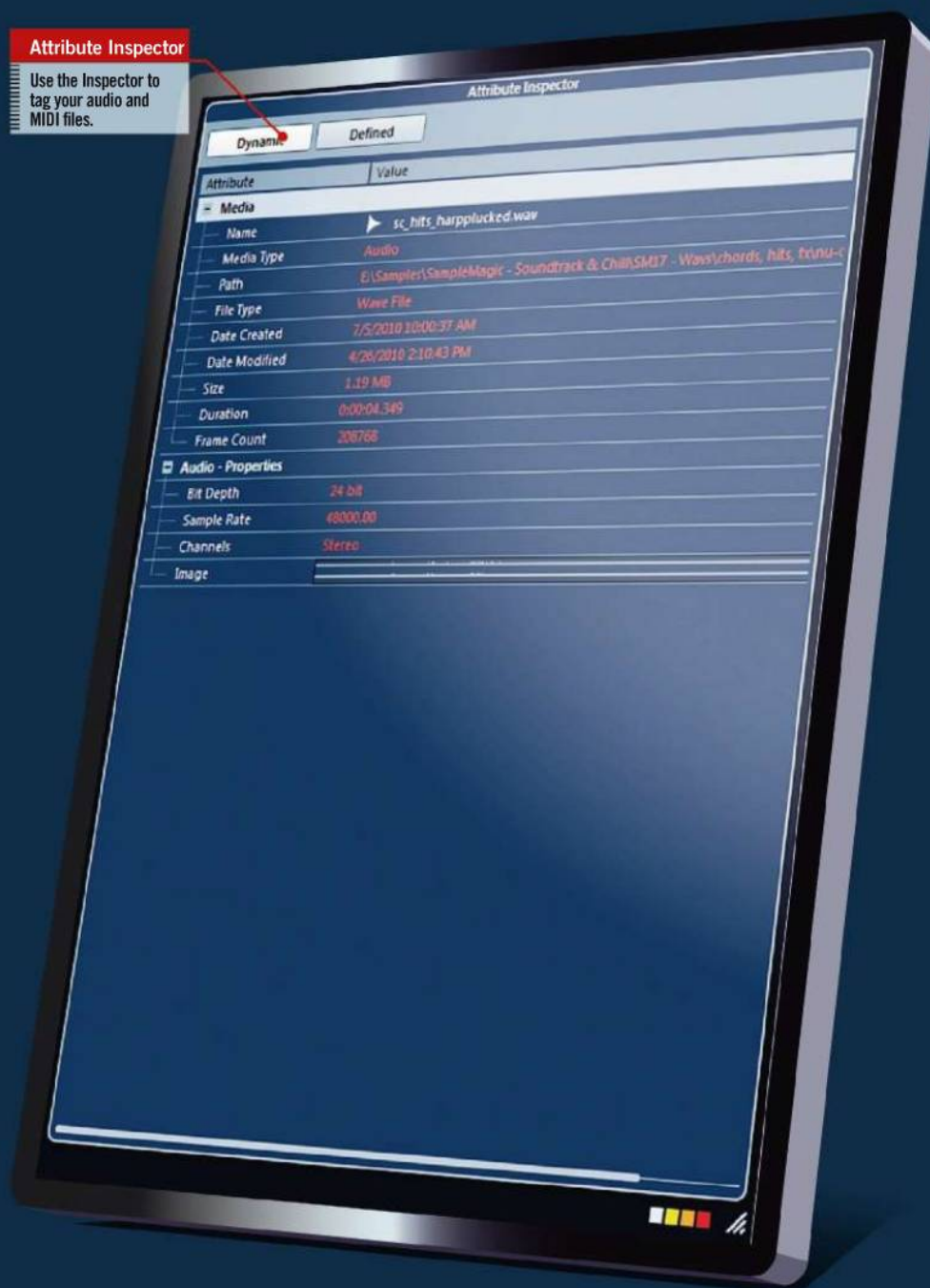
> Previewing your content.

## NEXT ISSUE

Make sure you pick up *FM* next month for more Cubase tips. *FM234* on sale 25th November

### Attribute Inspector

Use the Inspector to tag your audio and MIDI files.



# Attribute Inspector

10

Having a wide range of possible Attribute tags for media is all very well, but they need to be tagged in the first place to make them worthwhile.

This is where we call on the Attribute Inspector. As soon as you select a file (or files) in the Results window, the associated attributes will be displayed in the Inspector to

the right. In Dynamic mode, only those attributes already assigned will be shown. Pressing the 'Defined' button allows you to select which attributes are visible.

Click on a value to edit the associated attribute. The cog icon next to the 'Defined' button allows you to customise what attributes are visible, while the '+' and '-' buttons provide the ability to add or remove custom attributes.

You will notice that some of the attribute fields are displayed in

different colours. This gives some extra information on what can be edited, and is especially useful when looking to edit multiple files simultaneously.

A full description of what each colour means can be found by hovering individually over the small coloured squares at the bottom right of the MediaBay window.



DOWNLOAD VIDEO AT <http://bit.ly/9eCnmX>

> A video guide to using the Attribute Inspector.



# A Brief History of Cubase

This month sees the second instalment of our series on the history of today's top DAWs. **Greg Scarth** checks out the Cubase family tree

**L**ast month in *Knowledge Base* we examined the development of Apple's Logic Studio and this month our DAW history series continues as we tackle one of its closest rivals, Steinberg Cubase. The story of Cubase bears a striking resemblance in parts to that of Logic. From their roots on the Commodore 64, both applications developed into highly sophisticated DAWs. This month we find out how Cubase helped Steinberg Media Technologies grow from humble roots to become one of the biggest music software companies of the twenty-first century.

## Pro 16 tools?

Steinberg Research arrived on the scene in 1984, in the era when the Commodore 64

dominated a miniscule computer music scene. The company, formed by Karl 'Charlie' Steinberg and Manfred Rürup, offered just one product: a basic 16-track MIDI sequencer package named Multitrack Recorder. Rürup, a keyboard player, and Steinberg, a musician and studio engineer, were some of the earliest adopters of the relatively new MIDI protocol, immediately spotting its potential for computer sequencing. Incidentally, the company name was chosen simply because Rürup was felt to be too difficult for American customers to pronounce. Multitrack Recorder sold fewer than 50 copies, but the concept was soon developed into the more advanced Pro-16, a 16-track MIDI sequencer for C64. With a clear single page interface and real-time

recording, Pro-16 was incredibly powerful for its time.

## 16 plus 8

In 1986, Pro-16's successor, Pro-24, saw the company shift its focus to the exciting new Atari 520ST platform. With programmer Werner Kracht on board, Steinberg took full advantage of the ST's built-in MIDI capabilities and processing power. As the name suggested, the Atari's larger memory and faster processor allowed Pro-24 to offer a further eight tracks of sequencing than its predecessor, but it also crucially allowed much more flexibility in terms of track recording and song arrangement.

Editing options included musical score notation (introduced in version 2.0), quantisation options and a step sequencer-style grid editor for drums. Pro-24 was also ported to the Commodore Amiga, although the lack of built-in MIDI support meant that it was never as popular as the hugely successful Atari version.

## Enter Cubit

Pro-24's lifespan finally came to an end in 1989 with the announcement of a new Steinberg sequencer, Cubit. The name change signalled a major overhaul of the product, with a clear timeline interface and a much more advanced feature set. However, before Cubit even hit the shelves its name was rapidly changed to the now-familiar Cubase following legal threats from developers of a similarly named software package. The first version of Cubase was notable for the introduction of the clever MROS (MIDI Real-time Operating System) protocol, an early spiritual predecessor of the Steinberg/

Cubase's early genesis: Pro-24, a 24-track MIDI sequencer that ran on the Atari ST





Propellerhead ReWire system, which allowed the ST to carry out basic multitasking and transfer musical data between programs.

Despite the success of the Atari version, Steinberg released the first version of Cubase for the Mac operating system in 1990. Acknowledging the power of the Mac for music making, all Cubase development switched to the more advanced platform at this point.

1992 saw the arrival of Cubase Audio, the first version to offer audio support in addition to MIDI sequencing capabilities. Initially only available for the new Power Macintoshes (which boasted 60MHz processors – blisteringly fast for the time), the software was developed by British programmer Mark Badger and based on Digidesign's hardware and TDM engine. While continuing to develop for Mac and Atari, Steinberg also acknowledged the importance of the Windows operating system and entrusted a new project to programmer Ralf Kürschner. In late 1992, Cubase for Windows joined the Steinberg line-up. Although it wouldn't offer the audio features of its Mac counterpart until a couple of years later, the Windows version of Cubase opened the package up to an even larger market of home PC owners.

### Plug-in revolution

Having already beaten Emagic Logic to the punch with audio support, Cubase hit another crushing blow in the summer of 1996 with the introduction of VST (Virtual Studio Technology) plug-in effects. VST was the first plug-in expansion protocol designed specifically for audio applications, allowing effects to be added to the core Cubase application. Rather than relying on external

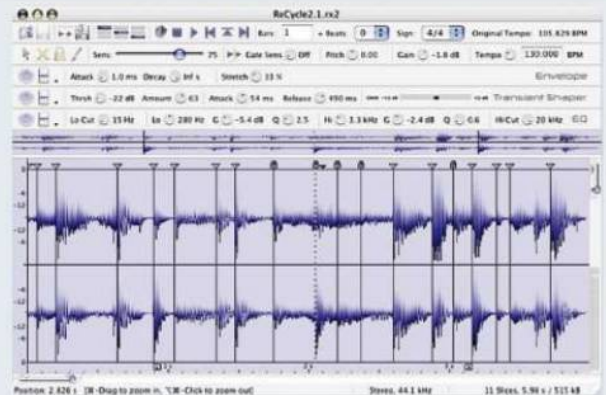
**VST was the first plug-in protocol designed specifically for audio applications**

processing hardware, VST plug-ins allowed Cubase to use the host computer's native processing power to manipulate audio in real time. The protocol was expanded in 1999 with the introduction of the version 2.0 specification which allowed plug-ins to be controlled via MIDI, opening up the possibility of VST instruments (VSTi plug-ins). Steinberg's decision to release the VST Software Development Kit (SDK) and license the technology to other developers ensured that VSTs became one of the

## Beyond Cubase

The dominance of Cubase makes it all too easy to forget how many other products Steinberg have created over the years. Notably, many of their smaller utilities and editors were groundbreaking for their time. The Avalon sample editor, first released in 1989, offered truly cutting edge timestretching, effects, modulation and resynthesis options long before most other editing packages caught up. 1994's ReCycle followed suit with its revolutionary beat-chopping features, while Steinberg's collaboration with Propellerhead on ReBirth RB338 helped usher in the craze for Roland x0x emulation.

Working with C-Lab's Gerhard Lengeling, Steinberg also developed a series of editor packages for some of the top synthesizers and samplers of the 1980s. More recently, the WaveLab audio editor and Nuendo multi-tracker are major successes. We also mustn't forget the ASIO (Audio Stream Input/Output)



protocol, a low-latency audio driver specification for Windows. The list of products goes on.

Not everything has been a hit, but Steinberg aren't ashamed of their less successful products, acknowledging their importance in the learning process. The ill-fated Topaz direct-to-disk recording/editing

system and the CBX-D5, a hard-disk recording system developed in conjunction with Yamaha, showed the company's commitment to innovation. The fact that they were both made obsolete by more powerful software-based DAWs only goes to show that Steinberg had the right idea all along with Cubase.

dominant plug-in formats. The introduction of plug-ins can rightfully be considered one of Steinberg's greatest contributions to the development of music software.

### Paths diverge

Windows users finally got their hands on plug-ins with Cubase VST 3.5 in late 1997, but the major upgrade arrived for the Mac the following year. VST 4.0 offered Logic-style Folder Tracks, a Marker Track, basic customisable interface options including Window Sets, groove template creation and a variety of smaller tweaks. More importantly, though, the flagship version of Cubase was renamed VST/24, signalling the introduction of 24-bit recording.

### SX-y beast

The current incarnation of Cubase first arrived in the summer of 2002, when Steinberg released Cubase SX. Rather than being named Cubase VST 6.0 as would seem logical, Steinberg again chose to go back to version 1.0 in order to symbolise that this was an entirely new product. Legacy code was ditched and the new version of Cubase was built on the much more advanced Nuendo audio engine. With sample-accurate audio editing in the arrange window, 5.1 surround mixing, dramatically improved automation and multiple undo levels, SX brought

Cubase into the twenty-first century. Cubase SX was updated regularly over the course of the next seven years but in 2006, the SX suffix was dropped and Cubase 4 introduced the MediaBay and Sound Frame for browsing settings. Also featured were Control Room monitoring options taken from Nuendo and a number of new plug-ins including the HALion One soft sampler. Which brings us up to date with Cubase 5, released early in 2009 and quite clearly the most advanced version of Cubase yet.

### The future

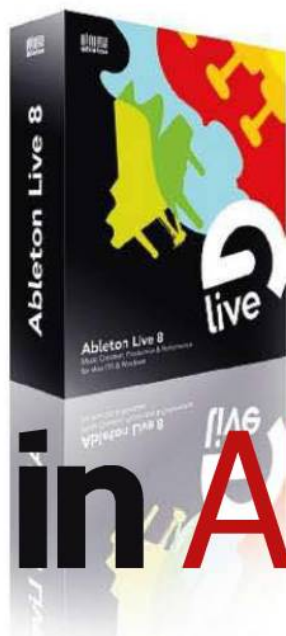
Bearing in mind their deserved reputation as innovators, it's difficult to predict where Steinberg will go next with Cubase. Revolutionary products like the VST protocol came so far out of leftfield that very few people would have foreseen their arrival. Cubase and Logic have been so evenly matched for such a long time that you can rest assured Steinberg will be doing everything they can to try and edge into a clear lead. Finally, a quick word on names. Cubase 5 is the current full version, while Studio 5, Essential 5 and LE 5 offer cut-down feature sets at lower prices. With prices starting at a fraction over £100 for Essential, there should be an option to suit most pockets. **FM**

### KNOWLEDGE BASE NEXT ISSUE

Stay tuned to *Knowledge Base* – next month we'll discuss the mysterious world of digital headroom. **FM234 on sale 25th November**



## ABLETON LIVE ESSENTIALS



# Creative Looping Pt 2

## in Ableton Live 8

Last month, we looked at the basics of using loops within Live. Now we're looking at ways of busting through the repetitions, and using loops in a more organic way. **Martin Delaney** tries to break the habits of a lifetime...

**B**uilding music from loops is a funny thing. It can really suck, frankly, unless you bring something extra to it, and I

guess that's what we're trying to get at with these walkthroughs. If you build an entire tune from short loops, especially if they're loops that came from a sample library, you're playing with Lego, not making music.

The keyboard setup that I talk about in the walkthroughs is a very old-school way of using Live, but it's still valid if you want to get a more instrument-like way of performing. It reminds me of the prehistoric Mellotrons and Chamberlins, which were (or are, because somebody's doing Mellotrons again now, and there's even an iPhone/iPad app version) pre-samplers, in a way – keyboards with libraries of eight-second tape loops, recorded from real instruments. When you held down a key, the loop would sustain indefinitely, but there'd be a glitch at the end of each loop. I think the term 'mechanical nightmare' applies here, but they do sound awesome!

### Loop control

Hardware controllers make a big difference with this – they're the interface between you and your software, after all. You could use a keyboard, especially one that interacts well with Live's devices without



The Grid app is a great way to launch Ableton Live loops from an iPhone, iPod Touch or iPad

### THE EXPERT

**Martin Delaney**  
performer,  
producer



Martin, aka mindlobster, has produced Live training material for MacProVideo and PC Publishing, and has personally taught Live to musicians, DJs, kids, and prisoners.



### DOWNLOAD

Head to: <http://bit.ly/a6D3vs> for a Live set containing the loops from the tutorials, and a movie showing the techniques used in the tutorial.

needing any boring MIDI mapping (check out M-Audio's Axiom Pro and Novation's ReMote SLs), or drum pads, or something specifically dedicated to controlling Live, like the Akai APCs or the Novation Launchpad. Because it's the 21st century, you could also use an iPad app like touchAble or Grid – they all have their pros and cons, but somewhere out there is the ideal controller for you!

### Breaks and fills

A lot of this talk about using loops organically crosses over into issues relating to song arrangements. A song that merely crashes from one section to another without any breaks, fills or transitions is going to sound pretty Lego as well, even if it's all your own parts, so the time you spend creating those little changes is important. Read on for more... **FM**

### LIVE ESSENTIALS NEXT ISSUE

Make sure you pick up *Future Music* next month as we take a deeper look at using loops creatively. **FM234** on sale 25th November



# Build A Looping Keyboard Instrument

Even in this modern world, sometimes a MIDI keyboard is still the best Live controller you can have



**1** This is a way to trigger loops responsively, from a keyboard, like using a modern version of a Mellotron. Each loop gets its own key on the keyboard, and they only play while you hold down the keys. It's best to have a larger keyboard for this, like with 49 or 61 keys.



**2** Use the clips in the 'keyboard samples' track in the example set. You'll need to spread them out so there's one per track. I've based the number of clips on how many fingers and thumbs I have. If you have a different number than the usual four plus one, make your own arrangements.



**3** Enter MIDI Map Mode, and map each clip to a white key on your keyboard, going upwards from your lowest C. The octave doesn't matter, as long as you remember it afterwards – check the octave up/down buttons on your keyboard. Select all of the clips at once and set them to Gate launch mode.



**4** Set their velocity sensitivity to 100%, and trigger them, so you can preview what's happening – they're responding to how hard you hit the keys. Gate mode means that the loops only play while you're holding the keys – which deliberately limit you to playing on only a few loops at once.



**5** For the right hand, I've got a looping Simpler patch setup already. This behaves differently from our looping clips, because we're in the Simpler instrument, so this will play at different pitches across the keyboard, as long as you're playing notes that aren't assigned to launch the clips we just set up.



**6** You can label your keys with masking tape if it helps you remember what's what, and if your keyboard's got faders and knobs, you can add some effects control. Sure, you can build setups like this in Logic's EXS sampler, or with MainStage 2's Loop Playback plug-in, but it's much more immediate in Live!



# Loops in Instruments

It's not just the session and arrangement views – Live's instrument devices have loop controls too!



**1** Some of Live's instruments also have looping-style features. In the Live set on the DVD, there are two separate tracks containing Operator and Simpler, which I've set up in advance. Use a MIDI keyboard if you've got one, or tap shift-cmd-K to use the computer keys as a virtual MIDI keyboard.



**2** Arm the Operator track, then play a few notes so you can audition the basic sound, then click on the bottom left panel – Oscillator A. You should see a Loop control at the bottom left of the main, darker, display. Click it, and beneath that choose Beat and next to that, under Repeat, 1/8.



**3** Now do the same thing with Oscillators B and C, but use Repeat values of 1/2 for B, and 1/4 for C (D isn't used in this preset). Keep listening while you do this. The sound has a lot more going on because of those different loop values you've entered.



**4** Maybe we should clarify exactly what you're looping – the Loop and Repeat controls are affecting each Oscillator's volume envelope – that's what is portrayed in at the top of the main display when you have an Oscillator selected. There are other options than Loop, of course – check them all out when you have time.



**5** I have edited the attacks of these envelopes – I've tried to come up with settings that make it easy to hear the loops in action. As you click on each oscillator, the central display updates to show which one you're working with. Like with the Loop options, spend some time playing around with these.



**6** The example set also includes the Simpler track that I mentioned earlier. That's set up with a sample that loops indefinitely while you hold down a key, then tails off – releases – slowly once you stop. Use a hardware controller, or touchAble, to mess around with the loop length and fade controls. Don't forget: LFOs are fun too!



## Basic Scene Transitions

Create smoother transitions by using the clip stop buttons to create crossover loops in scenes



**1** When you trigger a scene in Live, and a new set of loops jump in, cutting off the previous ones. It can feel harsh – clip stop buttons can help with that. Load the example set that's on the DVD, and go to the scene labelled '105bpm'.



**2** Launch that scene (click the button in the master track), let it run for a few bars, then launch the '120bpm' scene. Boom! Let's take the edge off. Use cmd-E to delete the clip stop buttons in tracks two, eight, and nine.



**3** Now when you trigger those scenes again, some of the clips from the first scene play through into the second. This helps create smoother transitions between songs in a live set, too. Use cmd-E to bring those stop buttons back at any time!

## Resampling Your Loops

You can drag'n'drop samples into Looper for some cool loop combinations



**1** If you want a fresh take on working with loops in Live, create an empty instrument rack, then drag in four instances of Looper, from the Audio Effects folder. Drag each of the four samples in the Samples track onto one of these Loopers.



**2** Enter Key Map Mode, and assign the small start button of each Looper to 'A', and the stop to 'S'. Change each Looper's Song control chooser to None. Now when you hit 'A', the loops will all play even when Live's transport is off. Sweet!



**3** Now you can fiddle with Looper's Reverse and Speed controls, as well as drag audio effects onto each Looper, to create a self-contained little mix. See my finished example of what I came up with, in the 'Looper' track on the disc.

## Lose the Loop

It's just an idea – you might think this sounds too radical – but maybe you could try playing your parts in from a keyboard, over the length of your whole song, or at least over each section: verse, chorus, break, and so on. If you do that you're guaranteed to get a repeating part that doesn't repeat too much, if you see what I mean. You could use a MIDI keyboard, drum pads, or your computer keyboard. If you need some help, go to the Edit menu and set Live's Record Quantisation to 16ths, or 32nds – a smaller division is

better, because as it makes corrections to the incoming MIDI, 'wrong' notes won't get nudged too far ahead or behind. You can also edit the note velocities manually, or use the Velocity MIDI Effect Device to average them out a bit, and use Live's Groove templates to apply a shuffle feel.

Then of course there's the live audio options: add guitar, bass, vocals etc, by running microphones or line inputs through your audio interface. You don't need a fancy studio with racks of expensive gear, and you don't need to spend more money – just use what you've

got already, even if it means singing into the mic on your laptop. Live's very forgiving – lower the project tempo to the original speed later, and use warp markers to tighten odd things up, or apply audio quantisation to bring the recording quickly into line (it sounds bad and wrong with vocals, but that's not to say you shouldn't do it!). Even after using these tools to clean up your recordings, they still won't sound as robotic as if you drew them in with a mouse.





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# Reviews

The month's studio essentials  
on the *FM* test bench...



**Neve Portico II 88** Neve take the best of their 5088 console and put it in a 2U channel strip.



**Nord Piano 92** Clavia's acclaimed V5 modelling technology gets fitted into Nord's first dedicated piano.



**Arturia The Player 94** The soft synth sorcerers unveil their new Analog Factory package.



**sE VR1 & VR2 96** sE continue to innovate with this new ribbon mic pair, one passive and one active.



**touchAble and Grid 102** We delve into two Ableton Live-specific iOS apps.

## Highlights this issue...







## GROUP TEST

# Guitar Apps

Four iDevice guitar connectors, four guitar amp apps. **Martin Delaney** discovers which connector and amp combo is the most rockingest of them all?

Apple's iPhone, iPad and iPod Touch have evolved into serious guitar practice and music-making tools, with features that would have been more expensive (and sounded much worse) just a few years ago.

Most of the tested apps start with free versions, then have pay upgrades to get more features. The connectors use quarter-inch jack inputs, and 3.5mm headphone outputs, and attach to the iDevice using the headphone socket (or dock connector, in one case).

If you want to record the output, or go to a PA, take a line from the headphone jack. The test guitars were a 2010 Fender Telecaster Special Edition with humbuckers and coil taps, and a 1990 Gibson Les Paul Studio. Our test dummy guitarist was Mak from London band Silver Pulsars. So let's move on before our battery goes flat, as we try to find our 'ultimate' iDevice guitar rig!



## Griffin Technology Guitar Connect and iShred | £20

Supremely to-the-point guitar-to-iPhone cable meets free amp app for no-fuss setup

**G**riffin's **GuitarConnect** is a **heavyweight six-foot grey cable with quarter-inch guitar jack, 3.5mm stereo** headphone input, and 3.5mm iPhone output. Nice and simple – just add some headphones.

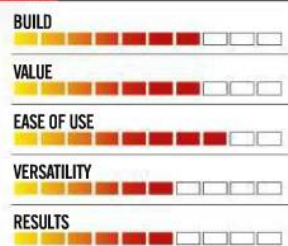
All you have to do is plug it into your iPhone, iPod Touch or iPad, and launch a guitar amp app. Three things to remember before we go any further: iPhones should be put into Airplane Mode, to avoid interference, mains power causes hum and iPhone users will avoid feedback problems by using headphones that don't have a microphone built in!

Griffin suggest pairing **GuitarConnect** with Frontier Designs' free **iShred Live** app. Three effects are included, along with basic amp controls – a clean/overdrive switch, and gain and volume knobs. There are six included presets, and 42 remaining slots, a metronome and a tuner. In-app purchases include a

recorder that lets you capture your jams, and up to five more effects. **iShred** can also load songs from your iTunes playlists, which is a really cool practice feature.

**GuitarConnect** works well enough, but **iShred Live** is too basic. Other than the smooth iTunes access, it doesn't have much to offer – the presets are uninspiring, and the sound quality just isn't punchy enough.

### FutureMusic VERDICT



The cable is very guitarist-friendly, but overall **iShred** doesn't hold up well against the other apps.





## Peavey AmpKit Link and AmpKit | £30

Amp aficionados Peavey join the iOS party with their AmpKit Link and AmpKit app combo

**A**mpKit Link is a rather ugly piece of white plastic that looks like more like a part of a burglar alarm. The kit contains two AAA batteries – an LED lights when a guitar jack is plugged in – and there's the necessary 3.5mm headphone connector and a 3.5mm jack for connecting to the iDevice. You can either use the free AmpKit app, buy the AmpKit+ bundle for £11.99 or purchase individual amps, mics, and effects – this could get expensive, as the add-ons range from £1.79 to £3.49 each.

A metronome, tuner, and recorder are included. Backing tracks can be downloaded via WiFi, but there's no iTunes access. The free AmpKit includes eight presets and one amp and cab, based on the Peavey ValveKing amp. This behaves like a real high-gain amp: it's noisy and it feels like feedback is lurking around every corner. AmpKit depends on the overactive noise gate – at the default

setting it cuts off way too fast. I don't like fiddling with input levels for individual presets – not on an iPhone app, anyway.

Unusually, there's a reamping feature, where a recorded part can have a different amp model applied to it afterwards implying Peavey see this as a studio tool too. If you don't mind the high maintenance, AmpKit will make a great mobile shred machine!

| FutureMusic | VERDICT                                                                                                                   |
|-------------|---------------------------------------------------------------------------------------------------------------------------|
| BUILD       | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |
| VALUE       | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |
| EASE OF USE | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |
| VERSATILITY | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |
| RESULTS     | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |

If you're happy fighting the level settings, AmpKit has all the iPhone guitar metal you'll need.



## IK Multimedia iRig and AmpliTube for iPhone | £30

The best-known iPhone guitar setup, from a major force in the guitar amp emulation field

**I**K Multimedia might feel they've got something to prove with AmpliTube for iPhone – their AmpliTube 3 is one of the best guitar amp applications for Mac or PC. The iRig connector is a compact black cylinder with guitar and headphone inputs, and an iDevice jack output – a good start. AmpliTube has the best-looking user interface of the test bunch, with the choice of using 'traditional' on-screen knobs, or a touch strip at the right of the screen.

Some features are lacking, though: there are only four preconfigured presets (36 user slots are available), and even the full version has only 11 pedals, five amps, five cabs, and two microphones. You'll also find the regulation tuner and metronome, but no recording features, and no iTunes access, though songs can be imported via WiFi.

Even with those limitations, it was AmpliTube that I kept coming back to – iRig is a tidy connector that stays

out of the way, and AmpliTube simply sounds great.

When we were making the example recordings on the DVD, we liked it immediately – it felt subjectively more real and musical than the other apps in the test. It doesn't reach the metal extremes of AmpKit, but other than that, it's definitely a very useable set of sounds for practicing and for demos.

| FutureMusic | VERDICT                                                                                                                   |
|-------------|---------------------------------------------------------------------------------------------------------------------------|
| BUILD       | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |
| VALUE       | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |
| EASE OF USE | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |
| VERSATILITY | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |
| RESULTS     | <div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div><div></div></div> |

AmpliTube sounds good, with useable presets. Probably the most demo/rehearsal-friendly app.



Beautifully made interface,  
hindered by the price and slightly  
limited range of compatible apps.

[illegible]



# Mackie Onyx Blackjack | £149

Mackie equip their new interface with Onyx pres.  
**Trevor Curwen** tries his hand at Blackjack

## WHAT IS IT?

Rugged 2-in/2-out USB audio interface

## CONTACT

Who: Loud Technologies  
Web: +44 (0)1494 557398  
Web: [mackie.com](http://mackie.com)

## HIGHLIGHTS

- 1 Quality mic preamps
- 2 Rugged construction
- 3 Latency-free monitoring

## SPECS

### System Requirements:

**PC:** Windows 7 32-bit/64-bit, Vista 32-/64-bit RTM or XP SP2, 512MB RAM

**Mac:** OS X 10.4.11 – 10.6.4, G4 processor, 512MB RAM

**Type:** 2-in/2-out USB audio interface

**Connections:** XLR/jack combi inputs x 2, 1/4" jack outputs (L, R), 1/4" jack stereo headphone socket, USB connection

**Phantom power:** Yes

**AD/DA converters:** Cirrus Logic with 114dB dynamic range (A-weighted)

**AD/DA conversion:** 24-bit, 44.1 and 48kHz

**Dimensions:**

167 x 110 x 72mm

**Weight:**

723g

**M**ackie's Onyx mic pres have garnered a good reputation among recordists but it's not

everybody that needs or wants to have a full-blown mixer in their recording setup, not to mention any affordability issues. Not to worry though, if you want to get your hands on some Onyx preamps, Mackie have come up with the Blackjack, a two-channel USB interface built around a pair of the preamps that Mackie say are "designed to meet or surpass expensive, esoteric standalone mic pres in terms of fidelity, headroom and transparency".

Solidly-built with a rugged metal chassis, the Blackjack's control surface sits at a very ergonomic 25 degree angle on your work surface thanks to a chromed metal band that props it up

and doubles as a useful carrying handle. With the exception of the quarter-inch stereo headphone socket on the front panel right where you need it, all the other connections are tucked safely round the back and include a pair of Neutrik combi sockets that can handle input from XLRs and quarter-inch jacks left and right quarter-inch jack monitor outputs and the USB socket.

## Signal strength

Being class-compliant, you don't need any special drivers for the Blackjack – it's just a matter of plugging it into a USB socket, setting your DAW's control panel and going for it. The unit is bus-powered so there's no need for a separate power supply, although be aware that it won't operate from an unpowered USB hub.

All signals are catered for, phantom power for condenser mics being globally applied from a front panel switch while the jack component of the combi sockets will handle line level and Hi-Z instrument signals so you can plug guitars and basses straight in – each channel having its own switch for selecting between line and Hi-Z mode. The gain knob on each channel is linked to an LED that lights green to show a healthy signal and blinks red to show any overload.

With separate volume controls for the monitor and phone outputs, it's very easy to set up the monitoring exactly as you need it and there's no need to be concerned about any latency delay as there's an input monitor knob that facilitates zero-latency monitoring by routing the analogue signal directly from the preamps to the monitoring outputs. You can also switch between stereo and mono monitoring of the input signal so, if you are only using one input channel, you can hear it right up the middle rather than in one ear only.

Onyx mic preamps coupled with Cirrus Logic converters ought to be a recipe for quality sound and the Blackjack doesn't disappoint. There's bags of headroom available and we obtained clean and detailed recordings with both mic and guitar signals. If you are looking for 96kHz recording you'll need to look elsewhere but if 44.1kHz and 48kHz are your preference, this Mackie has little to fault it.

## Hit me

There are plenty of two-by-two audio interfaces on the market, many of them a lot less expensive, but the Blackjack exudes quality. With its brick outhouse construction and USB bus power, it's an ideal portable companion to a laptop but equally at home in a fixed location where it will handle all manner of audio sound sources with aplomb. A great option, covering lots of bases. **FM**



## FutureMusic VERDICT



A rugged bus-powered USB audio interface with great sound quality and versatile monitoring facilities.





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 facts on [www.steinberg.net](http://www.steinberg.net)

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Creativity First



# Neve Portico II

## | £2,545

The Portico range is expanded to utilise the glorious 5088 circuitry. **Robbie Stamp** tweaks the Neve



### WHAT IS IT?

2U channel strip – preamp, four-band EQ, de-esser, compressor

### CONTACT

Who: Sonic Distribution  
Tell: +44 (0)845 500 2500  
Web: [rupertneve.com](http://rupertneve.com)

### HIGHLIGHTS

- 1 Stunning signal quality
- 2 Superbly versatile EQ
- 3 Intuitive layout



**T**he Portico II literally expands the excellent Rupert Neve Designs half-width range in the form of a full rack-width

2U channel strip. It provides a mic/line/DI preamp, four-band EQ and compressor, each as comprehensively featured as many standalone units.

On the outside the cool, clean aesthetic is coupled with a distinct lack of compromise on material and engineering quality, from the smooth knobs to the extra thick aluminium front panel. On the inside much of the circuitry is based on the 5088 console and carries many Neve hallmarks, from the all discrete bespoke RND op amps to the transformer-based input and output stages. The power rails run +/-36V that creates exceptional internal headroom to allow for high gain inputs and extreme settings without distortion.

### Preamp

The preamp gain is split into two main controls: the stepped Mic Gain (66dB in 6dB steps) and the Trim (+/-6dB). There is no pad control, but considering

the amount of headroom available, it's hard to imagine any sources managing to overload the Portico II. The DI input is paralleled with a 'Thru' jack for passing the instrument on to amps, pedals, etc, an oft-ignored yet vital function. The 3M  $\Omega$  DI input impedance is significantly higher than average which, coupled with the FET amplifier circuit, translates into a truly impressive instrument preamp. Bass guitars, synths and even pedal re-amping sounds full and crisp with more clean gain on tap than I could ever use.

This behaviour is not restricted to the DI input, and having tried a wide selection of mics, including some picky and awkward vintage pieces, I am very impressed by a combination of characteristics. The ample gain and excellent phase linearity brings forward the clarity and depth of all the mics I tried. Fast transient performance is coupled with a seemingly flat frequency response to both extremes of the audible range allowing sources to be revealed with a natural fullness. There is a thickening quality in the low mids that

could be described as 'forward', but to me it sounds like the kind of clarity that only comes with low intermodulation distortion and minimal phase shift.

### Shelvin' & peakin'

Between the preamp and EQ sections is a steep (24dB/octave) high-pass filter which can also be assigned to the sidechain (there are send and return jacks for sidechaining the compressor externally too). This HPF is highly effective in LF artefact removal with no evidence of the resonance or phase shift which can accompany sharp cutoffs.

The EQ has four bands: LF and HF peak/shelf, LMF and HMF parametrics. The HF and LF are independently switchable while the two mid bands share a bypass (the EQ can also be bypassed as a whole). Though the Portico II boasts many aspects that live up to the Neve nametag the EQ impresses me the most. The LF and HF shelving EQs are extraordinarily well implemented and can be used for the subtlest tone setting. The 15dB of cut and boost is more than enough, but thanks to the massive headroom extreme settings can be used without devastating the source.

In combination with the mid bands truly elegant and creative tone sculpting can be achieved. The bonus to the EQ is the presence of a de-esser, which is tied to the HMF band frequency and Q settings. There is a single 'Off/Max' knob and an LED to indicate gain reduction. Though this works very well on vocals it also does a great job of clamping various forms of mid presence for mix placement. The mid bands have so much range that I rarely used the LF and HF bands in Peaking mode, instead using them to shelf the tonal 'scene' while sculpting with the mids – joyous!







## Forward and back

The compressor section is no less impressive and features more dynamic control than many dedicated units. Alongside the Threshold, Ratio, Attack, Release and Gain are three less common, yet highly useful controls. The first is an RMS/Peak level sensing switch. In RMS mode the Attack/Release settings follow the averaged signal level as normal, but in Peak mode a fast (0.1ms) Attack is switched in along with a combined RMS/Peak level tracking. The Peak mode is a little vicious to use at low thresholds, but used to capture excessive transients, it does a fine job. The Blend control

## Feedback vs. Feed-forward Compression

Originally all compressors and limiters used a 'feedback' method of gain reduction, meaning that the signal level measured with relation to the threshold setting was derived from after the gain reduction stage. The overriding sonic characteristic of this method is often described as 'musical' as it follows the dynamic envelope of the signal. The degree of

lag is then controlled by the attack and release controls, but there is an inherent limit to the speed of attack or reaction to an incoming transient, and this is set by the combined temporal reactivity of all the components involved in the signal chain. This limit can be reduced by using a 'feed-forward' topology which derives the gain reduction source

from the incoming signal before the gain reduction stage. This reduces the number of components in the signal tracking path and therefore reduces the time between a signal level increase and the onset of gain reduction. This method produces compression characteristics that are highly sensitive to small fluctuations, often referred to as 'bite' or 'punch'.

The Portico II has many aspects that live up to the Neve name, but the EQ impresses me the most

allows the compressed signal to be mixed with the dry original and thus operate as a parallel unit.

The third standout feature is the FF/FB switch which really expands the range of compression character – for an explanation see *Feedback vs. Feed-forward Compression* box on the following page.

## Silky texture

The Silk function on the Portico range preamps is included here, but with its harmonic adjustment abilities expanded in two ways. Firstly there's a Texture control that allows the Silk level to be dialled in. Secondly there is an alternative tonality and character in the form of Silk+. Standard Silk mode brings in a LF/LMF frequency enhancement that adds a weight that could be referred to as 'warmth', though without the fuzziness this adjective often implies. The Silk+ is much more akin to standard harmonic distortion, though kept solely to the HMF/HF range no matter what the LF/LMF content. Both forms of Silk are useful for adding extra thickness/presence to a source without trashing the essential clarity.

## Price per Volt

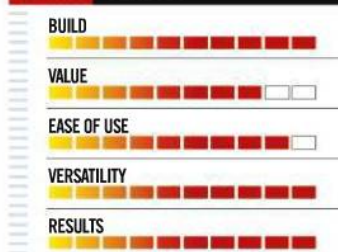
Rupert Neve and his little pixies have created such iconic units over the decades with many defining a sound that engineers keep reaching for. From this incredible stable comes the Portico II and its lineage is tangible in both

sound and design quality. It may not be a 1073 or a 33609, but it does package up the essential channel strip components with a

combined quality and range that is hard to beat, even with separates. It is expensive, but there is a very decent reason for this.

For me the stunning and versatile EQ in combination with the sheer quality of signal path (volts, oh lovely volts!) are reason enough, but add in the impressive range of compression and limiting options, the full-fat preamp and the two Silk options and the Portico II starts to look quite reasonable. Definitely an investment in quality. **FM**

## FutureMusic VERDICT



A 'best of' compilation of recent Neve designs in a top quality package with a price tag to match.

## SPECS

**Inputs:** 1x XLR (Mic), 1x XLR (Line), 1x ¼" TS jack (DI)

**Outputs:** 1x XLR

**Other connectivity:** 2x ¼" TS jack (sidechain send & return), 2x ¼" TS jack (Link send & return), 1x ¼" TS jack (DI Thru)

**Input Gain (Mic/DI):** +66dB in 6dB steps with variable Trim of +/-6dB

**Input Gain (Line):** Trim of +/-6dB

**Max. Output Level:** +25dBu (20Hz to 40kHz)

**THD+N:** @1kHz, +20dBu output <0.002%, @20Hz, +20dBu output <0.004%

**Frequency Response:** -3dB @2Hz and -3dB @160kHz at main output with no load

**Intermodulation Distortion:** <0.002%

**Compressor Ratios:** 1.1:1 to 20:1

**Compressor Make-Up Gain:** -6dB to +20dB

**LF EQ:** Stepped frequencies (35Hz, 60Hz, 100Hz, 220Hz) with +/-15dB cut/boost, peak/shelving selection button

**HF EQ:** Stepped frequencies (4.7kHz, 6.8kHz, 12kHz, 25kHz) with +/-15dB cut/boost, peak/shelving selection button

**Dimensions:**

**483 x 254 x 89mm**

**Weight:**

**9kg**

## ALTERNATIVES

**AMS-Neve 8801**

**£2,174**

A Neve channel strip and all the quality that goes with it, but this time based on the older 88R console.

[ams-neve.com](http://ams-neve.com)

**Focusrite ISA430 MkII**

**£2,185**

One of longest running channel strips: four-band EQ, switchable VCA/Optical compressor with separate gate, limiter and de-esser.

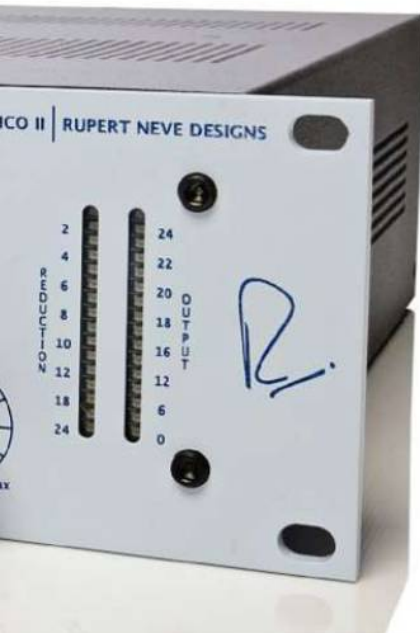
[focusrite.com](http://focusrite.com)

**API 7600**

**£2,467**

A 'best of' channel strip with a 212L mic pre, 550a EQ and 225L compressor. Desk-style routing means these can be stacked up as a pseudo-desk too.

[apiaudio.com](http://apiaudio.com)





**WHAT IS IT?**

A second installment of ProjectSam's orchestral library for Kontakt

**CONTACT**

Who: Time & Space  
Tel: +44 (0)1837 55200  
Web: [projectsam.com](http://projectsam.com)

**HIGHLIGHTS**

- 1 Quality mic preamps
- 2 Rugged construction
- 3 Latency-free monitoring



FutureMusic  
**Platinum Award**

# Project Sam Symphobia 2 | £979

Symphobia provided ready-made orchestral sets for composers. **Jono Buchanan** checks out its sequel...

**SPECS**

**Kontakt (Player) 4**  
supports: Standalone, VST, AU, RTAS (Pro Tools 7 or higher), ASIO, Core Audio, DirectSound, WASAPI

Native 64-bit support for stand-alone and plug-in versions on both Mac and PC

**System Requirements**  
**PC:** Windows XP (SP2, 32-bit)/Vista (32/64-bit), Windows 7 (32/64-bit), Pentium or Athlon XP 1.4GHz, 2GB RAM  
**Mac:** Mac OS X 10.5 or higher, Intel Core Duo 1.66GHz, 2GB RAM

**P**rojectSam's Symphobia is a Kontakt library of orchestral sounds and textures. In a bid to stand apart from other

dedicated libraries in this field, however, its huge success was based on its ready-made approach to providing layers of orchestral patches.

Symphobia was a huge hit with those writing music for TV, film and videogame soundtracks. Inevitably though, it couldn't cover all orchestral bases, so Symphobia 2 is here. To avoid any confusion, this is a new and separate library of sounds. As such, there's no upgrade path from the original Symphobia – it's a brand new library, albeit one designed to complement the original one.

**Scoring essentials**

Symphobia 2 ships on three dual-layer DVDs and due to the way the library is

streamed through Kontakt 4 (the free Player is also on the install disc if required), it will only eat 20GB of hard drive space despite running to 33GB of content. Activation comes via NI's Service Centre and thereafter you're away. So what's new? Firstly the range of articulations has expanded. The new library includes welcome 'extended' trills, crescendo patches and spicatto performances, to name but a few.

For me, the most significant new addition is a set of legato ensemble patches that feature transitions to ensure that movement from one note to the next is smooth and natural. Also new is the capacity to switch from 'Close' to 'Stage' microphone positions from the GUI. This isn't the only update to the front end of Symphobia, as all available options for a loaded patch are now visible and tweakable within a single window.

**Final score**

The richness and vastness of the material available in this library can't be explained fully on this page but take my word for it, if you're drawn to the idea of modern orchestral scoring, particularly to picture, Symphobia 2 won't let you down. Its recordings are rich and enhanced greatly by new, natural sounding articulations but its darker textures, in particular, make sound design and composition an absolute joy and very few libraries fuel inspiration right out of the box like this one.

If you like the idea of atmospheres, Symphobia 2 will provide you with a palette of textures that are currently unrivalled. The high price dictates that this library will appeal to professionals only but if you work as a music-to-picture composer or are determined to bust your way in, Symphobia 2 is ready to provide your ammunition. **FM**

**FutureMusic VERDICT****STABILITY****VALUE****EASE OF USE****VERSATILITY****RESULTS**

A comprehensive, flexible and inspiring sample library. A score-writer's dream.



# "I lean on Sonnox Plug-Ins"



**Sonnox**  
**Oxford**  
**Plug-Ins**

Florian Ammon  
*U2, Lifehouse,  
Rammstein*

[www.sonnoxplugins.com](http://www.sonnoxplugins.com)



# Nord Piano

## £2,091

Nord unleash their first dedicated stage piano.  
*Dan 'JD73' Goldman* sees red...



ON THE DVD

### WHAT IS IT?

88-note stage piano, housing Clavia's latest V5 piano library with onboard effects

### CONTACT

Who: SoundTech  
Tell: +44 (0)1462 480000  
Web: [clavia.se](http://clavia.se)

### HIGHLIGHTS

- 1 Sounds authentic and is simple to use
- 2 Nicely balanced weighted action keys
- 3 High-quality on-board FX and EQ section

**N**ords are popping up all over the place these days and Clavia seem to have struck upon a good balance of

sounds, features and playability that appeals to live performers and studio bods alike. Above all, many dig Clavia's no-nonsense or little menu diving approach. The Nord Piano is weighty and solid, yet it's just light enough to be carried by one person out of the box or in a soft case, or by two people in a hard case. All the controls are housed centrally and are easily accessible with either hand and the positioning of the control panel also leaves plenty of space either side on which to sit smaller keyboards, or a laptop.

Now onto the 88-note, fully-weighted keybed. I found this to be very playable indeed. It's not too heavy, nor does it suffer from any of the sponginess that I've found in several other weighted stage piano actions recently. Fast note repeats are easy, while it's great to play for long periods of time without being fatiguing on the hands or wrists. Also, though it's never ideal playing Clavinets sounds from a

weighted keyboard, the keybed is pretty playable for this duty. Overall build quality is first class, with an all-metal case construction and wooden end cheeks, while the switchgear and dials instill confidence, giving the feel of a premium instrument. The Nord Piano also ships with a quality three-pedal

unit, offering sustain, a soft pedal and sostenuto, which allows one note to remain sustained while the others play as normal around it (much like many grand pianos). This further enhances the Nord's authentic piano-like feel.

### Feature filled

Feature-wise it's pretty familiar territory for those that have used the Nord Electro or Stage series products. The sound selection area is simply laid out around an informative screen and thankfully you'll seldom have to look at it while performing, just for deeper utility functions and MIDI setups etc.

There are a total of 120 program slots in 24 banks, housed in 500MB of RAM, while the five 'live' program locations continually scan and store all panel settings for quick recall. As a performer's instrument, the Nord is certainly one of the best and the interface never gets in the way, though I would have preferred it if Nord had

### The Acoustics Section

The 'Acoustics' button accesses the string resonance and pedal noise samples, which have been expertly captured by Clavia for the V5 sample library.

A big part of any acoustic piano's sound is the sympathetic resonance that happens when a note is played and the other strings around the note(s) being played are excited and produce harmonic enrichment. The

inclusion of this feature goes a long way to creating a much more authentic and involving playing and listening experience. Clavia's pedal noise samples also expertly capture the sound that happens when stomping on or off a piano's pedals. These samples are a mixture of mechanical, damper, cabinet and string noise and further contribute to the overall authenticity of the piano sounds. Finally,

if you want to cram more pianos into the memory, Clavia provide small, medium and large versions of each piano sample (available over USB). All these samples have the same number of velocity layers but the small samples don't contain the string resonance samples, while the medium samples only have them in the main playing area – a fair compromise, in my opinion.







added a pitch bend and mod stick for those that would like to use the Nord Piano as a controller. Other useful features include a +/- six semitone transpose button, and a keyboard touch setting button (that gives you four velocity curves to suit different styles).

### Piano perfect

Sound-shaping features include two effect busses, a three-band EQ unit with

Clav samples. These small issues aside, there is little to criticise. The V5 samples are what I consider to be the most authentic, playable and musical currently available and few other boards come close to the Nord Piano in terms of playability and ease of use. Somehow the Nord Piano almost tricks you into thinking you're playing a real piano or electric piano and the sound is fantastic. In fact, in some recent

samples react under the fingers is spot on. Add to this the fact that Clavia constantly update their libraries for their users for free and the all round package becomes pretty hard to beat.

To conclude, if the subtleties and nuances of acoustic piano are a huge part of your sound on stage and in the studio, you'll find the Nord Piano a dream solution. For the most authentic-sounding and feeling stage piano

currently available, you need look no further. The Nord Piano should be firmly at the top of your list.

With Clavia's great customer support and large

online library of sounds, it's an investment that should reward piano-centric players for many years to come. **FM**

## The V5 samples are what I consider to be the most authentic, playable and musical currently available

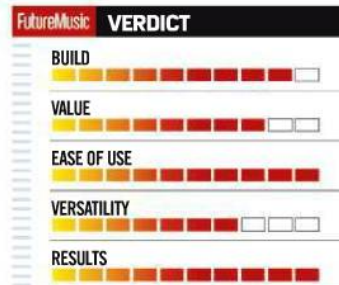
sweepable mid-range, an amp and compressor section and a reverb unit. The quality of the effects is first class throughout, with an authentic depth to the wah's, phasers, reverb, flangers and auto-panning, while the amp sims have an airy crunch that really adds to the already authentic and musical samples onboard. These are the same effects that are included in the flagship Nord Stage EX and thus, there's little to fault.

My only criticisms are the lack of a depth or amount dial for the effects (though linking the Phase1/Phase2 buttons or the Pan1/Pan2 buttons gives alternative effect depth variation) but the lack of the Nord Stage's superb analogue-style delay is sorely missed, particularly for treating the Rhodes and

recordings I chose the Nord over my Yamaha U1 upright and that says a lot about its authenticity. The Steinway, Yamaha and the new upright samples record and play brilliantly.

### Subtle sound

Not only that, but the Rhodes and Wurli Electric Pianos are beautifully sampled too (as are the Clavs, CP80 and Harpsichords) and again I feel these are perhaps the closest you can get to the real thing without using a laptop and samples. All the highs, bark and growl are there and the new Rhodes Custom Tines and Sparkle-Top samples are stunning (and the older ones are still up there too) the velocity layers are pretty much inaudible and again, the way the



The Nord Piano isn't cheap and it's missing some dials, but it feels and sounds top notch.



### SPECS

**Keyboard:** 88 keys, weighted hammer action

**Piano section:** 6 categories - Grand, Upright, Electric Pianos, Electric Grands, Clavinet and Harpsichord

**LCD Display:** provides information on program name and piano model

**24 banks with 5 programs each:** 120 programs

**Live Mode:** 5 Live programs

**Panel Transpose:** +/- 6 semitones

**Global Transpose:** +/- 6 semitones

Approx 40-60 Voices Polyphony

**Mono Output:** stereo performance (pianos and effects) can be changed to mono

**Memory:** Approx. 500 MB is available for the piano sounds

#### Effects section:

**Effect 1** - pan, tremolo, auto-wah, three depths

**Effect 2** - phaser, flanger and chorus, three depths

**Comp/Amp** - three amp/speaker simulations and a compressor

**Reverb** - Room 1 & 2, Stage 1 & 2, Hall 1 & 2,

#### Three-band EQ

**Connections:** L & R out, monitor in, headphone out, piano pedal in, MIDI In, MIDI Out, USB

#### Dimensions:

**1284 x 121 x 340mm**

#### Weight:

**18kg**

### ALTERNATIVES



#### Yamaha CP5

**£1,804**

The mid-range product in Yamaha's latest CP line, using a mixture of sampling and modelling for piano.

[uk.yamaha.com](http://uk.yamaha.com)



#### Korg SV1-88

**£1,559**

The closest rival to the Nord Piano, offering pianos, EPs, clavs, organ and other synth/string sounds in a screen-less, portable form.

[korg.co.uk](http://korg.co.uk)



#### Roland RD300GX

**£1,059**

Portable stage piano customisable pianos and EPs, plus powerful effects, EQ and on-board rhythms.

[roland.co.uk](http://roland.co.uk)



# Arturia Analog Experience

## The Player | €149

If Arturia's famous synths are beyond your budget, **Jono Buchanan** has their latest soft option



## WHAT IS IT?

1,000 sounds from Arturia's soft synth range and keyboard controller package allowing those on a limited budget to get the Arturia sound into their productions

## CONTACT

**Who:** 2Twenty2  
**Web:** +44 (0)845 299 4222  
**Web:** arturia.com

## HIGHLIGHTS

- 1 Portable keyboard
- 2 Faithful recreations
- 3 Plenty of presets

## SPECS

### Standalone, VST, RTAS and AU compatibility

### System Requirements:

**PC:** Windows XP/Vista/  
Seven

**Mac:** OS X: Mac OS X 10.4 or higher and Universal Binary

**Both:** 512MB RAM, CPU 2GHz (multiple cores recommended)

### Hardware Keyboard

25 keys with velocity

**Controllers:** Clickable encoder, four encoders, 1 pitch/modulation Joystick, seven switches

**Connectors:** USB (bus-powered), MIDI out, Sustain and DC In. Also functions as a universal MIDI controller.

**T**here are some synthesizers whose names have gone down in history as pioneering examples of progress and sonic

possibility. The seminal Minimoog, the ARP 2600 and the Prophet-V to name but three – products which still fetch high sums when sold second-hand and objects of desire for us mere mortals who can't afford to enter such auctions.

Arturia have softened the blow by painstakingly recreating a collection of these instruments, with wonderful sound quality and all the advantages of plug-in integration. However, these too are perhaps beyond the reach of those on tight budgets so they've developed a new package entitled 'Analog Experience The Player', a spin-off the excellent Analogue Factory software which we've loved in the past.

This new model bundles a software interface offering 1,000 sounds taken from all of the titles in Arturia's range with a brand new, retro-styled 25-key USB controller keyboard.

V to the power of 8

Eight synths combine to make up the sound bank available in the Analog Player, all taken from Arturia's V Collection and are: ARP 2600, Jupiter-8, Moog Modular and Mini, Prophet-V and -VS and the CS-80. The



way the plug-in GUI is organised allows you to choose sounds either by instrument, type or a combination of both, so if you know you want a Minimoog bass or a Jupiter-8 lead, you can select accordingly.

Each sound can then be tweaked using the interface below or via the new controller which features exactly the same control options. As far as sound-shaping is concerned, this is the area which programmers with 'fully-featured' soft synths will find most restricting, as you're limited to cutoff and resonance control, chorus and delay amounts and envelope control via attack, decay, sustain and release knobs. You can save tweaked sounds either to a user preset bank or to one of four Snapshot positions which are accessible on the right-hand side,



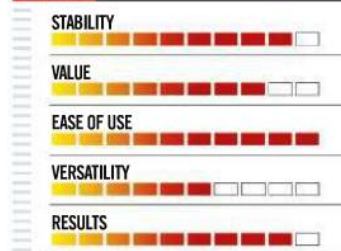
allowing you to call up four different sounds quickly, increasing Analog Player's appeal as a live instrument.

Clicking the Edit button below the instrument graphic for any preset does allow access to further parameters such as pitch-bend range, polyphony and the Step Size of sequences for presets which feature these but full sonic control remains Analog Player's deliberate limitation.

## Conclusion

If you've been admiring the soft synths in Arturia's range but lack the funds to get onboard, there's no doubt that the Analog Player provides a cost-effective way to get your hands on 1,000 hand-picked Arturia sounds, which are warm and impressively faithful to the sound of the synths they emulate.

The big limitation is sonic control but there are ways around that – either spend your money on one specific title from Arturia's range or invest in Analog Experience by buying further up Arturia's new product chain, namely: The Factory or The Laboratory. These add more presets, longer keyboards and a broader range of editable parameters while retaining the concept of choosing sounds from across Arturia's range. You pays your money... **FM**

**FutureMusic** **VERDICT**

Simple and effective concept with  
1,000 great sounds for a quick  
injection of classic flavour.





## Saffire PRO 14

- + Two Focusrite mic preamps capture your sound with pristine clarity
- + High-quality 24-bit/96kHz digital conversion, with JetPLL™ jitter elimination
- + Saffire MixControl ultra-low-latency DSP mixer/router

# The Saffire Range

THE ONLY INTERFACES WITH THE FAMOUS FOCUSRITE SOUND

At the heart of every Saffire interface are Focusrite's award-winning mic preamps, based on 25 years of mic pre excellence.



## Saffire PRO 24 & Saffire PRO 24 DSP

- + Two Focusrite mic pres, based on an unparalleled preamp legacy
- + With an ADAT input, Saffire PRO 24 provides a vast I/O count for the money
- + PRO 24 DSP features VRM - simulate different monitors and rooms, using your headphones



## Saffire 6 USB

- + Two Focusrite mic preamps capture every subtle nuance of your sound
- + Features four RCA outputs and flexible monitoring for laptop DJs
- + The best sounding, best performing interface in its class



## LIQUID Saffire 56

- + Two Liquid preamps, each allowing you to choose from ten classic emulations
- + Total I/O count of 28 inputs and 28 outputs, including 8 Focusrite preamps
- + Professional 24 bit / 192kHz digital conversion, with JetPLL™ jitter elimination



## Saffire PRO 40

- + Eight Focusrite mic pres, based on a 25-year preamp legacy
- + Professional 24 bit / 96kHz digital conversion, with JetPLL™ jitter elimination
- + Ultra-low-latency intuitive DSP mixer/router with quick one-click set-ups





# sE VR1 & VR2 Voodoo Ribbon Mics | from £619



Innovation is the name of the game as sE once again try to kick over the idols in the 'Temple of Mic'. **Robbie Stamp** investigates...

## WHAT IS IT?

Ribbon microphones (passive and active models) with mechanically extended frequency range

## CONTACT

Who: Sonic Distribution  
Tel: +44 (0)845 500 2500  
Web: seelectronics.com

## HIGHLIGHTS

- 1 Excellent ribbon/condenser hybrid frequency response
- 2 Small and light makes them (VR1 especially) easy to position
- 3 High SPL handling

## PRICING

VR1  
£619  
VR2  
£939

**W**ith the RNR1, sE Electronics challenged the ribbon mic norm and extended the

intrinsically limited frequency range with some clever design and a Rupert Neve-designed active preamp circuit. Their VR1 and VR2 take the same road but this time with a little voodoo in the physical/acoustical realm, and with a reduction in both size and cost.

## No clones

Like the RNR1 the two Voodoo Range mics present a modern aesthetic that

seems to have as much to with function as it does with a resolute break with tradition – these are no RCA clones. The most striking features are their size and weight, especially the VR1 which has similar dimensions to a flattened Snickers. The VR2 is about 50% longer due to the housing needed for the active (phantom powered) electronics. With regards to mounting, both mics come with a standard mic clip (in the wooden case) and a full shockmount. The design focus of the VR mics is a response (or resistance) to the general acceptance of the high frequency roll

off that goes hand-in-hand with the pressure gradient element Vs housing relationship of the ribbon mic topology. Without going into the physics of it (though it's well worth researching), the designer must finely balance the front-to-back dimension which defines the high frequency resonances and the space between the ribbon and the housing grilles which define the structure of the low frequency 'lift' necessary to flatten the response curve. Phew! Alongside this, sE have created a housing and baffle design to combat the high frequency roll off and thus 'extend' the effective range, and that's the bit that has patents attached. The holes in the housing are divided by a solid central section that effectively blocks the on-axis path to the ribbon and, in conjunction with layers of internal baffles and meshes, allows for a response biased towards diffuse (mostly HF) rather than direct (mostly LF & MF) acoustical pressure.

The VR1 is a classic passive design and relies purely upon the preamp it is connected to for any amplification. The VR2 joins the new breed of phantom powered ribbon mics that started with the Royer R122 which have been designed for several purposes. Firstly, it stops users being twitchy about the mostly erroneous belief that phantom power kills ribbons (see *The Phantom Ribbon Myth*). More importantly it amplifies the naturally low output sensitivity of the ribbon mic to a level equivalent to most condensers, thus requiring less pre gain and incurring less noise.

## Extended chocolate

The VR mics immediately reveal their extended HF range, especially when placed alongside other ribbon mics. In fact they would have stood out less in among a set of condensers. In the majority of cases this difference is positive, though subjectivity is difficult to remove from this consideration. The VRs exhibit the smooth clarity in the lows and mids that is the hallmark of good quality ribbons. In direct comparison, this range response is closer to the Coles 4038 than the more 'mid-forward' Royer R121, both of which I used in side-by-side tests. As the other mics started to roll-off around the 4-8kHz octave the VRs kept comparatively flat for another octave with the characteristic phase-related wrinkles occurring in the upper region of this area. The effect is that cymbals, when used as an overhead or room mic,





translate with a little twinkle that has more in common with a good condenser, though without the accompanying upper mid lift. On acoustic guitar this helps define the picking and strumming transients while still delivering that tricky low mid clarity at which ribbons can excel.

The vocal enrichment that comes with the proximity effect (using a pop shield of course) is in full effect with the VRs and is in the same ballpark as the Coles 4038, though without quite the same BBC-voiceover 'chocolate'. The high SPL handling means these mics can get up real close to guitar amps and bring out a rich low end, though in this use, the extended HF range made them seem a little toothless compared with other ribbons I use in this role (Royer and Beyerdynamic).

## The twins

Sonically the VR1 and VR2 are identical, but when the load (preamp) impedance is shifted away from ~1200 the active Vs passive response starts to become overt. Thanks to the head amplifier the VR2 changes very little with impedance except for a small shift in gain at the extremes. The VR1 shows a more dramatic gain change with relation to load impedance and the resulting frequency response shifts can subtly shape the extended HF range, one of the real benefits of passive mic designs. The output level difference is marked, as one would expect, with the VR2 around 20dB higher. This makes a huge difference in the noise floor and makes the VR2 a very flexible and capable tool for quiet sources. That said, the VR1 is no slouch and has an output level just shy of a Royer R121 and is perfectly decent for work with subtle acoustic instruments.

## The modernists

At around £600 for the VR1 and £900 for the VR2 these diminutive modernists are not cheap, but then nor is their performance. They are still priced just below some of the major competition in the same quality range and yet they offer something unique. I am in two minds about the frequency range enhancement as it does, to an extent, remove some of the flavour I expect and rely on from a good ribbon mic, and yet the sound quality is excellent.

Of course I can shelve off the HF with an EQ, but that just dulls the source without creating the frequency response wrinkles I know and love. As

an alternative to condensers the VRs are a more attractive proposition as they offer a smoother, less 'affected' representation of the source across a similar frequency range. The £300 difference could be put towards a better preamp to make up for the increased noise floor, though obviously it won't buy you a noiseless +20dB! The VR2 is larger and more expensive but it will deliver, whereas the VR1 will be more susceptible to the vagaries of poor signal paths. If you're looking for a new take on the ribbon (or the condenser) the VRs could be your answer, and you can always take advantage of the sE free loan service to find out. To add some extra incentive sE are also including a Dual Pro pop shield and Project Reflexion Filter gratis with each mic purchase before December 31st. **FM**

## The Phantom Ribbon Myth

The most persistent myth about ribbon mics is that phantom power will destroy them. In truth only poor luck, poor design or carelessness can actually pop a ribbon with phantom power. Phantom power applies 48V DC to the positive (hot/pin 2) and negative (cold/pin 3) connections of the microphone creating an equal and opposite voltage (electro-magnetic force) across the ribbon

element. The ribbon is not moved or affected by this 'cancelled' voltage and thus phantom power is essentially harmless.

However, if for some reason the phantom power becomes unbalanced, causing a voltage bias, the ribbon will be forced to move with the resultant electromagnetic force, which can damage or break the ribbon.

The main cause of this (rare) imbalance is a short

between conductors in the connecting cable, though the same effect is caused by dry solder joints in the console/preamp mic input circuit or within the microphone itself.

So what can you do? If you have to plug a ribbon mic into a powered channel (i.e. due to global +48V) then make sure the mic cable is sound and that the power is only switched on once the mic is plugged in.



## SPECS

### VR1

**Diaphragm:** Two micron thick aluminium ribbon  
**Polar Pattern:** Figure-of-8  
**Frequency Range:** 20Hz to 18kHz  
**Sensitivity:** 1.6mV/Pa or -56dBV +/-1.5dB  
**Impedance:** ≤300  
**Equivalent Noise Level:** 17dBA  
**Max SPL:** 135dB (for 0.5% THD @ 1kHz)

### Dimensions:

33mm x 17mm x 127mm

### VR2

**Diaphragm:** Two micron thick aluminium ribbon  
**Polar Pattern:** Figure-of-8  
**Frequency Range:** 20Hz to 18kHz  
**Sensitivity:** 10mV/Pa or -40dBV +/-1.5dB  
**Impedance:** ≤200  
**Equivalent Noise Level:** 20dBA  
**Max SPL:** 135dB (for 0.5% THD @ 1kHz)

### Dimensions:

33mm x 17mm x 185mm

## ALTERNATIVES



### Royer R121 or R122

From £1,157

The iconic models that kick-started the ribbon resurrection.

[royerlabs.com](http://royerlabs.com)



### Coles 4038

£772

A full, smooth and effortlessly classy sound keeps it an orchestral recording stalwart.

[coles-electroacoustics.com](http://coles-electroacoustics.com)



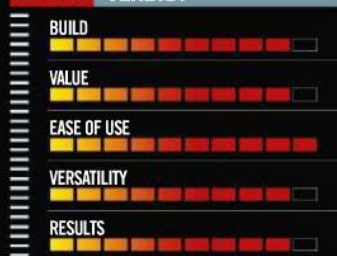
### Beyerdynamic M130

£553

Possibly the highest bang-for-buck ratio in the market – do try one out.

[beyerdynamic.com](http://beyerdynamic.com)

## FutureMusic VERDICT



A unique and impressive update to the ribbon mic that out-performs many in the £1k range.



**WHAT IS IT?**

A revolutionary Mastering Processor that retains mix character while massively increasing overall level

**CONTACT**

Who: Sub6 Distribution  
Tel: +44 (0)845 481 8149  
Web: sub6distribution.com

**HIGHLIGHTS**

- 1 Fabulous transparent compressor section
- 2 Incredible control of transient shaping
- 3 Serious sound enhancement beyond the realm of mastering



# Slate Digital FG-X Virtual Mastering Processor | £149

With the loudness war raging, Slate Digital wade in with a new process. **Stuart Bruce** prepares for battle

**T**here's been a lot written in this magazine about mastering, particularly in relation to maximising level. The audio world's obsession with making it louder has resulted in some pretty dreadful sounding mastering jobs out there, so something that promises high master levels without squeezing the life out of your music can only be a good thing.

From the moment you first launch the FG-X, you have the impression that somebody has been paying attention to the details. There's a beautiful interface with a simple layout considering what's under the bonnet.

**Keep it clean**

The first of the FG-X's two main sections is labelled Comp. There are many

compressor plugs out there with a 'sound' and we all have our favourites. When it comes to mastering you want something as transparent as possible. Slate assume, quite sensibly, that you already used your favourite emulation of some esoteric vintage device when you did your mix. This compressor is clean as a whistle and simply allows you to control the dynamics of your master before you maximise with the Level section. The controls are straightforward, too.

In operation it really is one of the most transparent compressors I have ever used. You can hear a difference in the way it shapes the dynamics but you have no sense that it changes the sound. Not just useful as a mastering tool but also for those moments when you just need a bit of dynamic control with no big sound change.

**Louder and more**

The second section is labelled Level and this is where the exciting stuff lives. It's here where the Intelligent Transient Preservation (ITP – see the box on the next page for more) process is brought into play and where the FG-X really does



give you some wonderful shaping and levelling possibilities.

The two knobs on the left are the transient controls – the first of which is Lo Punch. Increasing this pushes the low energy in the mix, bringing up the bottom end without colouring the mids and highs. Great if you feel the bottom end of the original master doesn't quite have the weight you think it needs. The second is labelled Detail and this puts more clarity into the transient sounds. I found it to really help with tracks where percussive sounds felt they might be a bit buried, or when I just generally wanted a bit more rhythmic clarity. The big knob in the middle is the gain control that allows you to add up to 20dB of gain. For everything I tried it with, I never managed to get this up full without making a puree of the source material but there was plenty of scope before the liquidiser kicked in.

After this comes Dynamic Perception. With all this extra gain and compression it's very easy for the track

## Intelligent Transient Preservation

In order to get masters louder, mastering engineers use all kinds of tricks, many of them involving distortions in the analogue and digital domains. Using small amounts of distortion at various points in the mastering chain increases level without becoming too noticeable. This might mean running analogue circuits like line amps and equalisers hot or just pushing a high-end A/D

converter into soft or hard clipping. What Slate Digital have done is come up with a completely new set of algorithms called Intelligent Transient Preservation, or ITP, which look ahead at what is coming next in the music and then apply a suitable distortion for the coming program material.

If it's a bass drum, it applies a saturation curve which preserves low frequencies, for snares or

other higher transient sounds the curve is more sympathetic to the mid and high end.

The intention is to maintain transparency while still allowing a substantial increase in level, and doing it all in the digital domain means that you don't need all that expensive gear to get the levels you are looking for. Judging by the results from the FG-X, they seem to have got it right.

transients, Smooth does exactly what it says and Hard can get very aggressive, but I found uses for both.

## Not just mastering

Just because it calls itself a mastering device doesn't mean you need to limit

compressed loops can have some life breathed into them while making them louder still. Synths can get more punch and depth without any nasty artifacts. As a general dynamic fixing tool, I've yet to try anything better.

# I love the FG-X. As a mastering device and general dynamic fixing tool, it's the best I have tried

to start to sound linear, particularly in the high end. What this control does is give the impression that the track is more dynamic than it is, opening out the high end. As with the gain control, high settings start to become very noticeable but dependant on the source, it's extremely useable through its whole range. Finally there is the ITP slider. This goes from Smooth at the bottom of its travel to Hard at the top. This directly affects the colouration that the saturation curves give to the

yourself to that sole application. As I mentioned before, the compressor is great to use alone when you just want some transparent level control. It worked great on vocals and lots of acoustic instruments. Bringing the transient shaping capabilities of the Level section into play gives you endless creative possibilities. Over-dynamic acoustic instruments can easily be made to sit in the mix while still retaining a seemingly open and transparent sounding clarity. Over

of it – so much so, that on my old dual processor G5, one instance used more than 50% of one processor.

I spoke to a few other users on both Mac and PC and the good news is that Intel machines allow a lot more instances, though it's not really made for every channel as it is.

I love the FG-X. As a mastering device it is the best I have tried. It's one of the few devices I've found that works equally well in every style of music and as a creative and fixing tool, it's something you will find yourself returning to again and again. **FM**



Tailor FG-X to your needs with its comprehensive Settings pages

## SPECS

Available in VST, AU and RTAS

## System requirements

**PC:** Any Intel or AMD processor with SSE2 support, 1GB RAM, Windows XP, Windows Vista (32/64-bit), Windows Vista (32/64-bit)

**Mac:** PPC G5 or any Intel processor, 1GB RAM, OS X 10.4 or later

## ALTERNATIVES



**Waves L3 16 Multimaximizer**  
**\$558**

A multi-band approach to maximising level with plenty of professional endorsements.

[waves.com](http://waves.com)



**Pro Audio DSP Dynamic Spectrum Mapper**

**£200**

Incredibly versatile multi-band limiter with a unique capture function. Like the FG-X, a highly creative tool.

[proaudioldsp.com](http://proaudioldsp.com)



**Logic's Adaptive Limiter**

**£Included with Logic**

It's part of Logic and it's great. It doesn't have the shaping abilities of the others though.

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

**FutureMusic VERDICT**

**STABILITY**  
[Progress bar showing high stability]

**VALUE**  
[Progress bar showing high value]

**EASE OF USE**  
[Progress bar showing high ease of use]

**VERSATILITY**  
[Progress bar showing high versatility]

**RESULTS**  
[Progress bar showing high results]

**A brilliant and elegantly designed mastering processor that you won't just be using on the mix buss.**



## CONTACT

## HIGHLIGHTS

- ## SPECS

PC and Mac compatible.  
Operates in standalone  
mode or hosted within AU or  
VST software



**I**t wasn't so long ago that convincing guitar parts were impossible to add to software productions without being an obvious weak link but with plug-ins such as Real Labs' Real LPC and RealStrat, as well as Kontakt libraries such as Electric6ity, all that has changed. The latest contender to the title of 'ultimate soft guitar' comes in the form of Guitarist from Sugar Bytes.

Guitarist will run as a standalone or host happily within VST or AU compatible DAWs and manages to squeeze an awful lot into its moderately sized GUI. The main pane is dominated by the pattern sequencer, which is really where the magic happens. Unlike most of its rivals, Guitarist doesn't work by letting you hold down your chord of choice before using trigger keys as its

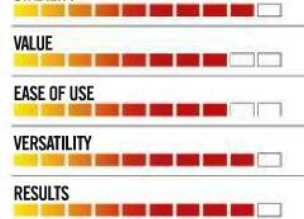
strumming mechanism but instead encourages you to select chords for each stage of the sequence you want to program, either by picking each one from a huge list, or letting you devise your own. The clever part is that you can decide which strings will play for each stage and you can even program individual notes within each chord, so that a main strum pattern is augmented by melodic lines too.

Additionally, you can decide whether each chord will sound a full strum, a dead note, a damped note... the list goes on. As each option features in its own sequencer 'lane', it's easy to adapt sequences on the fly in real time and, by default, middle C will trigger this first pattern. So, what if your track changes chords? Well, simply select the next chromatic note up (C#3) and you can start all over again, programming a whole new sequence.

But Guitarist goes much further, as it also provides comprehensive internal amp modelling and effects. As concerns the former, three forms of amp model are provided with variable drive, tone and volume settings, while the effects section is split into three sections, with the first covering effects such as phaser, chorus and wah and the second delay and reverb. The dedicated wah section comes next, with a long-throw fader to control frequency, variable wah type and LFO or manual control.

There's a lot to admire here and you can create extremely realistic results. This isn't a go-to solution for lead lines but otherwise, the option to add new chords of your own and the vast swathes of flexibility offered by the pattern sequencer, Guitarist has everything you need regardless of the style(s) you're working in. Very impressive. **FM**

## STABILITY



If you need versatile strummed electric guitar patterns in software, these are them.



Arturia<sup>®</sup>  
MUSICAL INSTRUMENTS



## 25 ANALOG EXPERIENCE THE PLAYER

Analog Experience - THE PLAYER is the smallest and most lightweight version of the Analog Experience Series. It features a compact MIDI keyboard controller and light version of Analog factory software. This makes for a very easy-to-use and affordable package, including the very best of Arturia's signature sounds and a dedicated

quality keyboard perfect for the mobile musician.

- Includes Analog Player with 1000 synths sounds
- Ultra thin 25 keys with velocity sensitivity in a high-quality mechanism
- High quality aluminium and wooden case
- Also functions as a universal MIDI controller



[www.arturia.com](http://www.arturia.com)



**WHAT IS IT?**

iPad-based touchscreen controller for Ableton Live

**CONTACT**

Who: touchAble

E-mail: [info@touchable.com](mailto:info@touchable.com)

Web: [touch-able.com](http://touch-able.com)

**HIGHLIGHTS**

- 1 Way deep levels of control over everything in Live.
- 2 Customisable interface, with lots of pretty colours.
- 3 Integrated keyboard and drum pads for software instruments.

**SPECS**

For touchAble app: Apple iPad only.

For touchAble server

application: Mac OS X 10.4 or above, Windows XP, Vista, 7. MIDI Yoke also required for Windows: [midiox.com](http://midiox.com). Ableton Live 8.1.5 or above.



# touchAble | £9

touchAble is an Ableton control app that promises to do it all. **Martin Delaney** sees how they cram it all in

**W**e're living in a world where anything over 99p is 'a lot' for an app, so anybody who's

asking £8.99 for an iPad-only one that's totally dependent on another program to do its thing, better be pretty confident. touchAble isn't the first iPad app to work with Ableton Live – there's also TouchOSC with the Livecontrol template, and of course, Grid Pro, reviewed on the opposite page, but touchAble promises much deeper control over Live than any of the competition.

You need a Mac or PC, Live 8.1.5, the touchAble Server application, and of course touchAble itself on an iPad. Setup involves the usual iPad WiFi voodoo – the key is to launch everything in the right order. Leave the server running if you plan to use touchAble's keyboard or drum pads.

**Future thrill**

It's a real geek-buzz when touchAble launches and shows your Live clip names and colours – even better when you start exploring and effect device parameters. It all happens in one main 'view', toggling various display elements in full- or half-screen, like clips, mixer and devices.

You can also view a MIDI-style keyboard, and drum pads – very convenient for instrument control. There are five velocity levels, and the keys or pads change colour to reflect this. What's not so cool, though, is the black-on-brown colour scheme used for those view buttons – it's totally unreadable, and I don't know how this got through to the final product.

Like the Akai APC and the Novation Launchpad, touchAble provokes Live into displaying a red box on screen, highlighting the clips under your

control. This box will be either 8x15, or 8x7, depending on whether you're in full-screen or half-screen view. A navigation 'cross' scrolls through tracks and scenes in single steps, or blocks of eight – which doesn't relate very well to the x7 or x15 display!

There's a control panel where you can manipulate clip length, loop length and position, and pitch – very nice. The mixer shows output metering, and control over up to four sends while a separate toggle area deals with solo, mute, and monitor. touchAble keeps its promise – you can dig deep, right into device parameters for instruments and effects.

If you have two iPads, or a buddy with one, you can set them up to control the same set. Things change fast in app-world, but at the moment, this is the deepest iPad-Live relationship you can get.

**Information overload?**

There are issues, though. For serious use, touchAble needs to be decluttered – the iPad screen is big, but not big enough for all of this, and that black on brown text has to go.

Using a touchscreen isn't a tactile experience, so the control it offers has to give you something extra somehow – most of the things you'll be doing with touchAble, you might as well do with your computer's trackpad – if you're not making the most of multi-touch, then why bother? Live's Session View interface is a design classic, and anything that takes you away from that better be worth the trouble. But, I don't want to bash it too hard – at the moment, nothing comes close to touchAble for its intended task.

So, is it worth buying an iPad just so you can run touchAble? No. But if you have an iPad already, then this is a must-have app even if you just dabble in Ableton Live. **FM**

**FutureMusic VERDICT****STABILITY****VALUE****EASE OF USE****VERSATILITY****RESULTS**

You may think about touchAble and an iPad instead of a hardware controller. A compliment indeed.



# Liine Grid | £15

Former JazzMutants produce Live clip launcher app.  
**Martin Delaney** wonders if one function is enough

## WHAT IS IT?

Ableton Live clip launching app for iPad (iPhone/iPod Touch version also available)

## CONTACT

Who: Sonic8  
Email: info@liine.net  
Web: liine.net

## HIGHLIGHTS

- 1 Focuses on just doing one thing, and does it very well
- 2 Excellent installation for otherwise tricky WiFi configuration
- 3 Nice overview of all clips in your set, and fast zoom in to chosen area

## SPECS

**For Grid Pro app:** Apple iPad. Separate Grid app also available for iPhone/iPod Touch

**For Grid Connector application:** Mac OSX 10.4 or above, Ableton Live 8.1.x or above  
Windows compatibility coming soon

**G**riid is one of many music controller apps for Apple's iOS devices, existing to control applications on our 'proper' computers (this review is about Grid Pro, the iPad version). Grid's designed to work exclusively with Ableton Live, and it has pedigree: a couple of former JazzMutants bring their touchscreen experience, and there's also some guy called Richie Hawtin on board, who knows a thing or two about the needs of performers.

## Grid locked

Two things hit you about Grid immediately – the single-function design, and the price. £14.99 is expensive for an app, though cautious shoppers can download the free Grid Lite first, which is limited to a clip grid of 3x6 portrait, and 4x4 landscape (Grid Pro goes up to 8x16, or 11x11).

Grid needs a WiFi network to talk to your computer, and the Grid Connector 'server' application, which is a free download from [liine.net](http://liine.net). These WiFi setups can be naughty, but trust the excellent Grid Setup Guide, and you

should get it working first time. Grid has that sparse techy look that geeks love – clip and scene names and colours are shown, yeah, but it's all very tasteful. You can navigate bigger sets by dragging left or right in the track headers, and up or down in the scene names – Liine discovered that making the clip area do double-duty for swiping and launching can cause latency. As well as using scenes, if you want to launch several clips at once, you can simply swipe sideways across them.

A tap on the bottom right button zooms out to show all of the clips in your set, and another tap will zoom in at a new location. The top right button deals with track stop functions. Multi-touch clip launching is awesome fun, and there's no hardware equivalent that'll show clip names while you do it! A small iPad battery level indicator at the bottom of the screen is a nice touch for performance situations.

## Single-minded

Grid is a clip-launching app, pure and simple (though I must admit I'd still like a mixer page tucked away somewhere). Once you put it alongside a suitable hardware controller, everything falls into place. Hawtin is very hands-on with Grid, especially in his Plastikman guise, so it'll be interesting to see how his experience of using it live will feed back into app updates – I know there are other Grid modules coming, so let's see what they do next.

Grid's of limited use in the studio or live situations where you don't have any physical controllers with you – the Liine guys confirm that this was a deliberate decision, believing that serious performers will want to use the best possible tool for each task.

Grid is totally recommended for DJs and performers who want to add multi-touch clip launching to their live hardware setups, but it is an addition, not a solution. **FM**



## FutureMusic VERDICT

### STABILITY



### VALUE



### EASE OF USE



### VERSATILITY



### RESULTS



Grid's blatantly a one-trick pony, and it's not the cheapest. But it does do that trick very well.



# Primacoustic London 12 Room Kit | £645

## Can a single solution turn your spare room into a true monitoring space? **Robbie Stamp** climbs the walls

## WHAT IS IT?

### Single studio room acoustic treatment kit

## CONTACT

**Who:** Shure  
**Web:** +44 (0)1992 703058  
**Web:** [primacoustic.com](http://primacoustic.com)

## HIGHLIGHTS

- 1** Simple adhesive-free installation
- 2** Does not kill the natural acoustic
- 3** More aesthetically pleasing than foam

## SPECS

**Pack Contents:** 2x  
Broadband Panels, 8x  
Control Columns, 12x  
Scatter Blocks, 28x surface  
impalers, 8x corner  
impalers, 100x wall anchors  
(for plasterboard and  
masonry walls)

**Broadband Panels:** 610mm  
x 1219mm x 51mm

**Control Columns:** 305mm  
x 1219mm x 51mm

**Scatter Blocks:** 305mm  
x 305mm x 25mm

**Available Colours:** Black, beige and grey

**Recommended Room Size:**  
11m<sup>2</sup> to 14m<sup>2</sup>

**A**s artists, engineers and producers have come to regularly rely on small non-purpose built spaces they have inevitably faced the ugly reality of uncontrolled small room acoustics. The Primacoustic London 12a Studio Kit on review here provides a basic all-in-one solution to address this issue and create an acoustically-controlled work space from a standard untreated rectangular room.

## Impaling

This impressive, bulging kit comprises of two large 'Broadband' panels (2ft x 4ft) that mount as corner traps on the

source wall, a set of eight long 'Control Columns' (1ft x 4ft) for mounting to the side walls and source wall as reflection attenuators and twelve thinner square 'Scatter Blocks' (1ft x1ft) to create a checkerboard pattern on the rear wall that gently reduces reflections and flutter echoes. All this plus the anchor fixings required for wall mounting. And they even throw in a drill bit too.

The panels themselves are all made from rigid fibreglass wrapped in micromesh and covered in a loose weave fabric that comes in three inoffensive colour choices: black, beige and grey. The rigid fibreglass attaches to the walls with metal 'impalers'. These

mounting plates have sharp triangular darts protruding upward and outward upon which one can impale the panel. Thanks to this simple installation anyone with a drill, screwdriver and spirit level can fit the entire London 12a kit in a couple of hours and have a pro-looking and sounding installation.

## Trapping

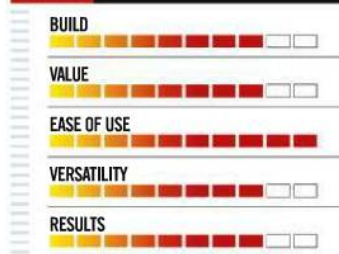
I installed the London 12a kit in the shell of what will be a studio control room (14m<sup>2</sup>). Basic measurements were made at nine points around the room before and after the installation with slow sine wave sweeps and white noise as well as standard listening tests. The results were positive and essentially fulfilled the design criteria for the kit.

Firstly the stereo image sharpened as side reflections reduced. The cutting back of early reflections helped keep transients clear, in turn increasing the perception of depth and clarity from the monitors. The front and back reflections and associated flutter echoes were reduced considerably and helped keep the direct monitor source well above any secondary sound source, thus reducing mid-range masking effects. After installation the room definitely felt more controlled without seeming at all unnatural or dead.

## Absorbing

To give a standard small room anything close to the level of acoustic control achieved in well designed pro studios requires a good deal more materials and reflective and absorptive solutions than the London 12a kit provides. That said, the kit does deliver a significant improvement over any non-treated room and provides a great platform that can easily be augmented to inch up the acoustic performance and tweak away for specific case perfection.

And at this price it's an instant, controllable and worthwhile solution with zero guesswork or fuss. **FM**

**FutureMusic** **VERDICT**

A well thought-out selection of components that will make your room workable within hours.





# LET YOUR MUSIC BREAK FREE

Legendary tone for recording guitarists.

24-bit/96 kHz compatibility, the lowest noise for recording guitar and near-zero latency are some of the crucial pro differences of POD Studio™.



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If you needed proof that all delay plug-ins are not equal, the EP-34 is happy to provide it. This one is warm, sumptuous and hugely flexible and is capable of going way beyond mere echo with a sound which can be pushed close to and then into distortion, if you so desire. It provides yet another UAD hit and another reason why resisting the allure of this plug-in collection is so difficult. **FM**

| Category    | Score (Red Segments) |
|-------------|----------------------|
| STABILITY   | 8                    |
| VALUE       | 9                    |
| EASE OF USE | 7                    |
| VERSATILITY | 8                    |
| RESULTS     | 9                    |

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# Mini Reviews

The latest musical bits and pieces racked and rated



## Shure SE315 | £190

[shure.co.uk](http://shure.co.uk)

**S**triking a decent balance between powerful bass port-sound and the simplicity and ease-of-use of single drivers, the Shure SE315s pack a mighty punch.

While there's just one driver, a large tuned bass port means that the sound is full and the weight is low. They're still sufficiently sizey to require that the cable be wrapped over the ear – you don't so much 'insert' the SE315 as 'fit them into your ear canal, and tuck them into your ear folds before winding the wire over the ear to support them'. But that's what you get when you go 'pro' with such tasty in-ears as these.

Once tweaked and fiddled into place, bass is strong but it's the mid-range detail that surprised us. If you're looking for pro sound, dependability and on-stage invisibility then this is it. **Daniel Griffiths**

**8/10**



## Ultimate Apex AX-90 | £250

[ultimatesupport.com](http://ultimatesupport.com)

**O**f course there are cheaper ways to suspend your keyboards but you'll never stack them as confidently as you do on an Ultimate stand.

Ultimate's Apex stand is an '80s legend and the current generation – the AX-90 – is the strongest, and most gig-honed yet. They're big, they're heavy, but their amazing design – in which all the legs and arms are stored in, and fold out from

the central pillar – means they go from supplied heavyweight padded gig bag to keyboard-ready stage presence in less than a minute.

The grips and adjusters are so precise and smooth that we were able to shift height and angle in controlled confidence with the industry standard Yamaha Motif keyboard still loaded.

Praise indeed. **Daniel Griffiths**

**9/10**



## Blue Yeti | £100

[bluemic.com](http://bluemic.com)

**T**he Yeti is Blue's third foray into the USB mic domain and aimed at everything from podcasting to music recording. The all metal construction means it feels solid and chunky and it will also fit a standard threaded mic stand. The three capsules give you four polar patterns: stereo, cardioid, figure-of-8 and omnidirectional.

The upper of these knobs controls gain and has a good range, well capable of dealing with the loudest (drums) and quietest (soft acoustic guitar) things I threw at it. The base of the mic has connections for USB and a 3.5mm headphone out. On the

front you find a mute switch and a master headphone volume.

The Yeti is true plug and play and the computer recognised it straight away. Once plugged it had recorded two guitars and a vocal in the first 10 minutes. The headphone amp works great and the live mic is latency free. The sound is very clear, well defined and has excellent depth.

Yeti is ideal for banging out a quick demo and good enough to use in a master recording, or for just looking cool when you're on Skype.

**Stuart Bruce**

**9/10**



### Twisted Cistern | \$40

[darksideofthetune.com](http://darksideofthetune.com)



Seattle's Dark Side of the Tune return with an unusual collection of weird and wonderful samples.

Recorded in a massive underground water storage reservoir located on a former military base in Washington State, *Twisted Cistern* is all about huge natural reverberation.

Sound sources include synths, guitars and percussion plus a variety of toys and circuit bent electronics. With a staggering 45-second decay time, it's no surprise that these samples are seriously unique. Mono, stereo and reverb versions of 197 sounds are included in 24-bit WAV format. It all adds up to make *Twisted Cistern* a fun package at a very good price. **Greg Scarth**

**8/10**

### Loopmasters DJ Mixtools |

£15 each

[loopmasters.com](http://loopmasters.com)



Loopmasters have decided to try something a little different here, in each of the Mixtools packs you get four tracks

broken into their composite parts. And you do what with it you ask? Well the theory is that the parts can be used to sculpt a "unique mix or DJ tool to work the crowd".

So far Loopmasters have produced three packs: Minimal Underground Techno, Tech House and Deep Minimal and Swedish House. Each pack ships with locked Drum and Bass grooves, loops that evolve over 32 and 64 bars as well as top and bottoms, breakdowns etc. At 15 quid a pop, it's cheaper than a night at the pub and could be a lot more fun! As with all samples these are royalty free so you can happily release them as your own should you wish.

**Roger Watson**

**7/10**

### Metric: Odd Meter Drumloops | £65

[timespace.com](http://timespace.com)



Despite the huge number of sample packs we receive every month, it's incredibly hard to find loops in unusual time signatures.

Sample companies keep releasing loops in four-four, producers keep composing in four-four and the cycle continues. Big Fish Audio address the issue with *Metric*, a collection of drum loops in three-four, five-eight, six-eight, seven-eight and nine-four time. Ranging from 120 to 220bpm, the acoustic loops are all produced to the highest standards and with over 1,000 to choose from, there should be something to suit everyone. WAV, Apple Loops, REX and RMX formats are included.

**Greg Scarth**

**8/10**

### Supalife Electro House | £25

[producerloops.com](http://producerloops.com)



Producer Loops' collaboration with Eddy Beneteau continues with another high-quality package, this time aimed at Electro House

producers. The five construction kits included here offer just about everything: drums, bass, synths and a variety of FX plus one shots if you want to make your own riffs and rhythms.

Prices for the full package start at £24.95 (for the REX files only) and go up to £34.95 for Apple Loops or WAV files plus REX and MIDI. As usual from Producer Loops, it's a very versatile package of top quality sounds that tick all the Beatport boxes and should slot into your club tracks with ease.

**Greg Scarth**

**9/10**

### Computer Core Volume 2 – Fiend | £18

[loopmasters.com](http://loopmasters.com)



Decided that your recent composition is a little too 'light'? Has everything got a bit too 'nice'? Well relax, LA-based sound

designer and digital destructor Fiend has the answer – 500MB of 24-bit nastiness in the form of *Computer Core Volume 2*. The emphasis is on heavy industrial distorted destructiveness, kicks and beats that rip your face off, throw it to the floor and jump repeatedly on it.

As well as the beats, you get a fresh selection of teased 303, 808 and 909 loops to play with as well as some menacing drones. All in all, just the ticket to add dirty grit to your tracks bring the darkness to these approaching winter evenings. **Roger Watson**

**8/10**

### Ragga Vocals Vol. 2 – Ragga Twins | £35

[loopmasters.com](http://loopmasters.com)



Flinty Badman and Deman Rockers, otherwise known as the Ragga Twins, take some time out from being 'the Kings of

Dancehall' and working with the likes of Shabba Ranks, Aquasky et al, to join Nick Deekline in a London Studio to put together this rather large collection of Ragga Vocals. 1.9GB of raps and vocals sitting between 97 and 177bpm.

Dry and FX versions are supplied for easy of use and although not the cheapest pack, you have to agree it's a darn sight cheaper than hiring a couple of Ragga legends for a session. Now get the dub in yo step.

**Roger Watson**

**8/10**

# HUNGRY FOR SOUNDS?

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# Q&A

Our panel of experts answer your music-making questions, from hardware issues to software ideas, with tips and tricks along the way

## Where to put your data

John Collins asks:

**Q** I need to set up my all-in-one computer for song writing and recording duties. I rely on large sample instruments. The computer has a 256GB internal solid state drive and a 1TB internal hard drive. I plan to add a 2TB external FireWire 800 drive.

Where should I place the OS and system files, my plug-ins plus software instruments, project audio, and my sample libraries?

Doug Kraul replies:

**A** A Solid State Drive's (SSD) high read throughput and very low read latency is perfect for playing back streaming sample libraries. Place your critical instrument libraries on it. Use the internal 1TB hard drive for the operating system, plug-ins, and applications. This drive could also house user data, plus other non-streaming audio files.

Partition the external FireWire drive into a 100GB and a 900GB partition. The 100GB partition offers the highest read/write data bandwidth so use it for your active projects' audio files. Inactive projects should be moved to the larger 900GB partition. You can store other data on

the 900GB partition as long as that data is not being accessed while recording or playing back tracks with your sequencer.

## What is S/PDIF and TOSLINK?

Dana Norris asks:

**Q** One of my synthesizers has a S/PDIF output, and my soundcard has a TOSLINK input. What exactly do these do and can I use them together?

Doug Kraul replies:

**A** S/PDIF (Sony Philips Digital Interconnect Format) is a digital audio data communication standard. It specifies the data format, and two different electrical connector standards. The first a common 75ohm RCA cable, the second a fibre optic cable first created by Toshiba called 'TOSLINK'.

Since they utilise the same data format, you can mix both connectors with a proper conversion device. For example, suppose you want to connect your synthesizer's S/PDIF RCA to the soundcard's TOSLINK. An S/PDIF RCA to TOSLINK converter, like M-Audio's CO2, is required to transform the connector format from RCA to the optical TOSLINK. One important detail is that S/PDIF does

## THE EXPERTS

### Mark Gyver computer music expert



With 15 years of music production experience, Mark knows everything (and more) about the current and classic software market.

### Doug Kraul technology author



Doug Kraul is an electronics and computer industry innovator, who has designed analogue modular synthesizers and MIDI devices.

### Dan Goldman artist/producer



Aka JD73, Dan is a session keyboardist, producer and remixer, specialising in vintage gear, mixing and production techniques.

To send in your queries you can email us at [futuremusic@futurenet.co.uk](mailto:futuremusic@futurenet.co.uk) and we'll pass them on to the relevant expert. Or write to **Future Music Q&A, 30 Monmouth Street, Bath BA1 2BW**

not use a separate clock signal – the clock information is embedded in the data stream. This means that unless both devices also include a word clock facility you will have to set your soundcard to synchronise its sampling clock to the incoming S/PDIF signal. Both devices must also be set to the same sampling rate.

## Too many tools?

Jack O'Sullivan asks:

**Q** I'm about to get into computer recording and I've been convinced that Pro Tools is the software for me. However, I'm confused about the range of products on offer.

I thought Pro Tools was made by Digidesign, but it now seems that the affordable models come from Avid and M-Audio – what gives? Also, what are the differences between the versions: I've seen Pro Tools SE, Pro Tools Essential, Pro Tools LE, Pro Tools M-Powered and Pro Tools HD being talked about, and I've no idea which one I should be getting.

Please help – I've got money to spend, but I just don't know how I should spend it!

Mark Gyver replies:

**A** I won't worry you with a history of Pro Tools – all you really need to understand is that it used to be used exclusively in studios and by pro music producers, but it's now available to everyone.

Let's clear up your points of confusion one by one, starting with the branding issue. Digidesign is the company that originally developed Pro Tools, but it's now owned by Avid, which also owns M-Audio. The reason you're now seeing the latter two names is that the Digidesign moniker is being phased out.

Right, that's that sorted, so what about the software itself? You can probably forget about Pro Tools HD as that's the version that's designed for pros and requires hardware processing power, but the other three are all up for your consideration.

At the bottom-end of the scale is the new Pro Tools SE, the entry level version that ships with Avid's three new consumer bundles: KeyStudio, Recording Studio and Vocal Studio (which come with a MIDI controller keyboard, audio interface and USB mic respectively). This replaces Pro Tools Essential and gives you a taste of the Pro Tools experience, but is

## Solid State Logic

Solid State Drives (SSDs) have created quite a stir among performance-minded computer users. Music computers can benefit, provided you place the right data on them.





# Summing For The Sake Of It?

Ian Mosely asks:

**Q** I have a Mackie 1604-VLZ Pro that I mainly use for sub-mixing keyboards through and I've been thinking it might be nice to send my mixes through it to warm them up, as I'm using a computer setup (Mac with Logic and an Apogee Duet) but I only have two outputs from my soundcard. I'm wondering if I need more outs to make summing worth it. I wanted to know if you think sending the mix to just two outs from the Apogee into the Mackie (and then

recording the stereo result back into the Mac) would improve the sound at all, or whether I should upgrade to something a bit more high end or should I just stay in the box?

**Dan Goldman replies:**

**A** The whole summing issue is one of epic proportions. It's often discussed but there is never any real conclusion to the discussion. This is because both in the box mixes and summed to analogue mixes can sound equally as good, but of course

subtly different. I've extensively tested many devices in the quest for the best sound and my conclusion is that summing with a high quality mixer, or summing mixer will really enhance your computer mixes.

I often mix down through just two channels of my Amek BC3 desk and it yields amazing results. Even summing to stereo using two outputs from Logic into my Prism Orpheus, into the desk, then back into Logic as a stereo file gives large sonic improvements in terms of deeper

depth of field and width and adds a nice glue to the mixes too, while also adding some nice air and analogue warmth.

So, in answer to your question, yes summing just two outputs through a high quality desk and back into your DAW should yield great results but the caveat is that you need to use high-end gear. If you use sub par converters (you have great converters so you're all good) and a cheaper mixer, the results won't be as good as the signal will be subject to some degradation along the way. Your Mackie is a very respectable desk but a summing mixer such as the SPL Mix Dream, Speck X-Sum or Neve 8816 will go a long way to getting you the sound you are after.



High-end analogue summing amps and mixers can add serious depth and width to your tracks



limited in that it can only record 24 tracks (and only two at once) and you can only use eight virtual instruments and 20 effects per project.

If you want something more capable, you'll need either Pro Tools LE or Pro Tools M-Powered, which are broadly similar. The key difference is that Pro Tools LE ships with the hardware that comes from the old Digidesign stable – the Mbox families, the 003 and Eleven Rack – while M-Powered can be purchased separately (for £182) and is compatible with M-Audio hardware.

Unless you're really skint, my advice would be to check out the new Mbox range and also M-Audio's audio interface line. Obviously, you'll have to factor in the cost of the M-Powered software if you go down the latter



**Mbox 3 Pro**  
Avid's Mbox range has just been updated, and each of the models in it ships with Pro Tools LE.

road, but go in either direction and you'll end up with an affordable and usable Pro Tools system.

### iPhone audio interfaces

Larry Warnock asks:

**Q** I've been having some success using Sonoma Wire Works FourTrack to record music on my

iPhone, but I now want to buy an audio interface so that I can make better quality recordings.

The obvious choice would be Sonoma's GuitarJack, because this is designed to work with FourTrack, but I was quite shocked to discover that this costs \$199, especially as I could get IK Multimedia's iRig or Peavey's AmpKit LiNK (which look to me like

they do a similar job) for around £30 each. Could you explain to me why the GuitarJack costs so much more and let me know whether it's really worth buying?

Mark Gyver replies:

**A** \$199 for an iPhone peripheral does seem like a lot of money, but to be fair to Sonoma, the

## Is MIDI Too Slow?

Graham Mehan asks:

**Q** I was recently told that MIDI is so slow that you cannot even play a triad chord and have all the notes sound at the same time. Is this true? Does this mean that my software instruments will be hopelessly out of time?

Doug Kraul replies:

**A** The MIDI standard is comprised of two elements: the MIDI data standard (how notes and other events are represented), and the MIDI

communications standard that specifies how MIDI information is sent and received. It's the second aspect that leads to some timing challenges.

Before we discuss the specifics, it's important to keep in mind that just because a device or software application follows the MIDI data standard, it doesn't mean it suffers MIDI timing issues. A good example of this is a software sequencer playing software instrument plug-ins. The sequencer may use MIDI data to represents

musical events but the timing of these events is governed by the sequencer's internal timing accuracy. Modern sequencer software is designed to insure that two simultaneous musical events are played with sample accuracy. The discussion that follows does not normally apply to something like a DAW controlling software instruments and plug-ins.

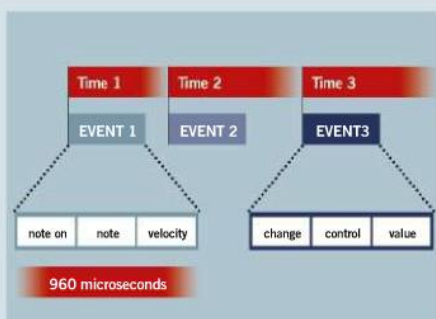
A MIDI connection, such as those found on hardware sequencers and synthesizers, uses serial communications, meaning events are sent one

after another. If you wish to send a simple three note chord those notes will arrive one after another instead of all at once. This serial nature causes timing discrepancies regardless of how well the sending device is designed.

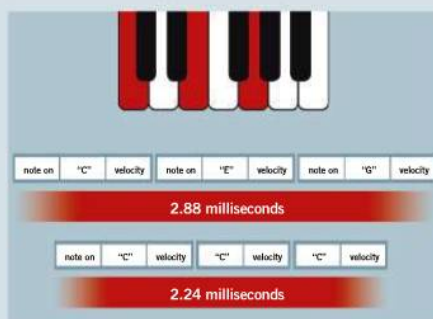
MIDI communication is slow by today's standards. Sending a MIDI command, like a 'note on', takes a bit less than one millisecond. A cluster of simultaneous events is smeared across a time interval sufficient to send all events. Whether this error musically materialises depends on the overall musical context, plus the nature of the sounds used. Timing limitations become particularly problematic when a single MIDI output is

utilised to send MIDI to multiple synthesizers, or even just one multitimbral synthesizer. Suppose you have a multi-part workstation connected to your computer's single MIDI out. If the music is busy at particular moments the timing error can be significant. One way to avoid these problems is by employing multiple MIDI outs to limit the amount of activity on each connection. These must be true MIDI outputs and not the same output expanded using MIDI Thru.

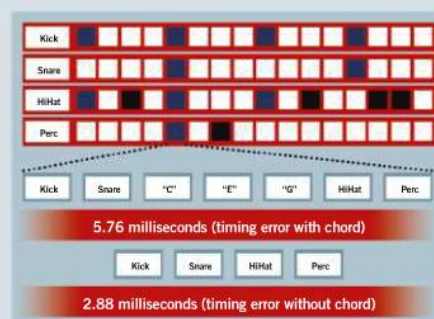
This is why a hardware sequencer with two or more MIDI output ports is so desirable. Separate outputs can be employed as 'private' MIDI ports for critical musical parts. Let's investigate.



**1** MIDI's serial nature means events are sent one after another. MIDI data itself does not contain timing information – rather timing is conveyed by when the event is sent. A typical MIDI event takes nearly one millisecond so events occurring less than one millisecond apart will suffer timing errors.



**2** A three note chord requires nearly three milliseconds, with a timing error between the first and last note of almost two milliseconds. Stated differently, the notes play 'arpeggiated' with about one millisecond spacing. 'Running status', supported by most devices, reduces the error by about 0.6 milliseconds.



**3** Combining drum parts, chords, and melodic elements on the same MIDI connection can cause timing jitter. The amount of simultaneous musical activity alters event timing. Here a three-note chord that sometimes sounds on the second beat leads to nearly three milliseconds of jitter.



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GuitarJack is a completely different kind of animal to the other two products you mention.

For a start, the GuitarJack interfaces to the iPhone via the dock connector rather than the headphone socket, which means (among other things) that you can record in stereo rather than mono. Furthermore, it has two inputs – quarter-inch mono and 3.5mm stereo – that can be used simultaneously, and the fact that you can switch the impedance between Hi-Z and Lo-Z gives you much more flexibility in terms of what you can record. Another difference is that, if you're using FourTrack, you can set the input level in software (you have 60dB of input gain to play with).

So basically, just as you can get both high- and low-end audio interfaces for your Mac or PC, now you can for the iPhone too. Whether the GuitarJack is worth spending nearly \$200 on will depend on how much and in what way you intend to use it – if you're just recording rough demos then it may be an unjustifiable expense. However, if you want to capture audio that will make its way into finished productions, you might be able to make it pay its way.

The one thing I would say is that, because the GuitarJack uses the dock connector, it'll only work with certain Apple devices which may not make it as future-proof as its price tag would suggest. The first generation model doesn't support the iPhone 4, fourth generation iPod touch or iPod, for example, though compatibility with these products will come with the next version (due for release in the first quarter of 2011).

This highlights the big advantage of the interfaces that work via the headphone socket (such as the iRig and AmpKit LiNK): they tend to work with a much wider range of devices, and are less likely to be rendered redundant should you change your Apple handset for a newer version in the future.

#### iPhone Interface

Sonoma Wire Works GuitarJack differs from the likes of iK Multimedia's iRig interface in several key respects.



#### Chords and Stabs

Ametrine Audio's Ravenator specialises in stabs and chords

## Stabsolutely Stabulous

Gregory Calay asks:

**Q** I'm wondering which VSTs (freeware or not) could be used to create stabs and chords. Could you help me on this matter so that I can create new sounds for my Deep Tech and House productions?

**Dan Goldman replies:**

**A** This is quite a broad question, as you can of course create stabs and chords with pretty much any VST that's capable of polyphonic output. It's not clear from your question if you want the VST to actually come up with the notes in the chords for you (which is a whole different ball game) but here are a few pointers for making stab sounds. As

stabs need to be high impact sounds, make sure you use a fast attack. Use saw or square waves for more attacky sounds and sines and triangle waves for softer and more hollow pads, stabs or chords. Also use detuning to give a wider and more sonically pleasing sound to your stabs and chords. The detuning will also give more movement to the sound and make any stabs you create sound thicker overall. Careful use of reverb and short delays will also enhance the impact of stab sounds and using longer predelay on your reverbs will allow the initial transients of a stab to come through while allowing the reverb to come through too. When it comes to

compression, use slower attacks and fast releases so that the initial transients cut through while the tails of the sound are not grabbed too hard by the compressor (unless you want that effect, then increase the release time to suit). In terms of VSTs for creating stab sounds, then there are many options including DCAM's Synth Squad and Waldorf's Largo (which would suit your style of music in particular) while Arturia's Analogue Factory is also a good bet. Of course these are all VSTs you need to pay for but they are worth the small outlay. There are many free VSTs out there too that would suit, including The TAL Uno-62 which emulates a Roland Juno-60 (one of my

favourite machines for stabs/chord work) and the Tactile Sounds TS Substance, which is also great at recreating analogue style poly sounds. Finally, check out the Ametrine Audio Ravenator VST that is cheap at around £40 and is packed with stab and chord sounds and also has an extensive wave sequencer and arpeggiator.

Last but not least, be sure to do a web search for 'free poly synth VSTs' and trawl through the vast number of options out there, check out the demos and see which ones work for you. Failing that, you could try House or Techno sample CDs which often contain ready to sample chords and stabs to get you going quickly and easily.



**Q Daniel Davis asks:** I'm after those Herbie Hancock-esque string sounds but I'm on a pretty non-existent budget. Is Logic capable of pulling off convincing string machine emulations without having to go out and buy a dedicated VST? This is something I'll buy in the future, but in the mean time, can you show me if there's a way to do this in Logic?

**A Dan Goldman replies:** Judging by the artists you've mentioned, it's the Solina's sound you are trying to recreate and thankfully Logic has some great tools for producing convincing string emulations. There are a couple of different ways to do it, so here's a six-step walkthrough that shows how to go about creating a classic Solina-style sound.



**1** Load up Logic. Firstly, we are going to try the simplest route in Logic, which is to use the ES E ensemble synth. Load up ES E into an instrument channel. The default sound that loads is the best place to start. Make sure the wave shape dial is set to the saw wave (fully counter-clockwise) as this sounds closest to the dry Solina sound (without the modulation button pressed in on the original hardware). Set the cutoff to fully open too which will give the bright cutting Solina-like sound.



**2** Next up, I've found it works well to add a little movement into the sound using the vibrato control on the ES E. Set the Vib/PWM control to the quarter-to position to simulate the beating of the oscillators against each other and the speed to the quarter past position. This should now be sounding quite Solina-like.



**3** Now let's look at the envelope controls. The sounds most synonymous with the Solina are long pad-like sounds with a fairly slow attack and slow release. I've set ES E's attack slider to just below half to give a nice slow but playable attack to the notes, while I've set the release control to half-way point so that the sound tails off nicely when you take your fingers off your keyboard.



**4** If you're finding that the sound is too bright at this stage then just back off the cutoff a little, or if the sound is too thick, then you can raise the resonance level too. Here, I've raised the resonance to the quarter-to position and the cutoff dial to the quarter-past position, which perhaps sounds even more authentic.



**5** At this stage we are pretty close to the classic Solina sound. Of course, the real magic button on the Solina is the modulation button on the right-hand side of the keyboard. So far we've used the Vib/PWM and speed controls to emulate this but we can instead (or as well) use ES E's Ensemble button to emulate the Solina's modulation control. Notice that the volume level will drop, so you may want to compress the sound a little to bring the level back up.



**6** Finally, if you are not satisfied with the overall sound, there is one further option in Logic. Instead of using the Vib/PWM control and speed dial and/or the Ensemble button, bypass these entirely and use the Ensemble effect from Logic's modulation plug-in list, use the synth 'string ensemble preset' as your starting point, then set the dial and sliders to the values in the screen grab above. **FM**



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# Demos



Are you unsigned, under-appreciated and looking for your first break? Get your tracks right on track!

## Demo Of The Month



### SELECTED KIT

#### Hardware

- > Akai MPK 49/Akai APC 40 Controllers
- > Yamaha DX7
- > Roland JX-3P
- > Clavia Nord Rack 2X
- > ProtoCo RAT
- > M-Audio Delta 1010LT
- > Tannoy Reveal Monitors
- > AMD Phenom II based Windows 7 PC

#### Software

- > Ableton Live 8
- > Lennar Digital Sylenth1
- > Ichiro Toda Synth1

### FAVOURITE GEAR

> "Hands down it would be the Nord, once you get the hang of it. It's easy to craft sounds to fit a particular vision and then most importantly create sounds that layer well with other synths. Only wish it had an Access Virus TI type of integration."



## Right Behind You K1Woods

Contact: [soundcloud.com/k1woods](https://soundcloud.com/k1woods)



This month's sE X1 mic winner is a full-on, soundtrack ready bit of Electronica from Kevin Woods. It's

brimming with ideas, and excitement and we can easily see it slipping in effortlessly behind the next widescreen Matrix-style fight scene or keeping us on the edge of our seat while Shia LaBeouf evades a rogue robot.

It's the reverb-heavy, ambient drum track that does it. Soon as you get those big, wide thumps on your track your in movie land! Elsewhere skittering synths and some Glitch-ing,

buzzing zaps and slaps keep the momentum up while a solid synth body provides the necessary gravitas.

"I layered a lush JX-3P string sound with some Ableton instruments for the pads and white noise effects," says Kevin, "and used quite a few instances of Lennar Digital's Sylenth1 – which is one of my favourites – for the bass and some layering here and there."

The track is very complex, but separating into two distinct layers: The big lush thumps, clunks and snare drum rolls laden with reverb and the tight stereo whizzing synths gives it a real presence. If soundtrack work is your goal you're well on the way!

## The Artist



**Name:**  
Kevin Woods  
**Where:**  
Philadelphia, PA  
**My track:** "I had a blast creating this

track. The original goal was to make the listener feel uneasy. I wanted to portray the feeling of being pursued or chased. Running yet fully aware that whatever is right behind, running step by step. Its got an ever evolving drum track, from a spirited 808 style in the beginning to a full march at the end."

### Which bit of this track are you most proud of?

"The Nord is producing the driving acid-style bass/lead sound that's prominent throughout the track. I have it running through an older style ProtoCo RAT distortion pedal to add some "nasty". I always reach for the Nord when I'm looking for a unique type of tone to cut through the mix."

### If we were to give you £5,000 for gear what would you spend it on?

"I just saw the promo video for the new Yamaha XF boards and I was blown away by the sheer quantity and quality of the presets. Although, I'll never really use the onboard sequencer features since I use Ableton, the other features win me over. I'd also give up the Akai pads for some good keys."

# The Best of the Rest...

## On The Border Angel C. Altieri

[angelcaltieri@gmail.com](mailto:angelcaltieri@gmail.com)



Love the warm, rumbling delay on this one, a moody work by Angel Altieri Yagüe.

"It's an elegant track with two

Interlaced bass lines which glide over a very hypnotic percussion track," says Angel. "I might remix it with some voices. I left some space for that purpose."

We agree, the arrangement is very song like and you do get a sense that something is missing. We can see you

having to pen a chorus though to bolster the great sound.

"My favourite sound is the sound of the bass, without doubt. I obtained it by combining the Helix and A.C.E softsynths. Both are amazing!," says Angel. Interesting we had that low metallic slide down as FM8. But what

about the rest of his gear? "I use Mackie HR824 Mk2 monitors, a Kawai K5000, Korg Electribe, Cubase, Soft Sinte Helix, u-he A.C.E and bx\_cleansweep V2 and bx\_solo."

A nice simple set up and we can hear it all getting a good workout on the track. Your mix is tight and well balanced and while the bass is large it's very well controlled.

So what is Angel working on next? "I'm working with my friend and DJ

Bobby Campbell on some melodic house tracks, inspired on Detroit's house and techno sounds." Make sure you send them over!

## Dirty Qwerty Haibert

[youtube.com/user/haibertdude](https://youtube.com/user/haibertdude)



This one is definitely nighttime friendly. We can imagine any club or bar up and jumping



when this drops. Nice super-annoying lead line, big peaks and drops and that insane marching band snare drum is superb!

"I would describe it as a great clubby Dutch house track," says it's maker Haibert Barfian. "I like the melody of the track and the the bass-y drum rhythm. I got the main melody sound from a twicking around a FMS preset." It sounds great, and considering you're just using standard desktop speakers alongside your Sony Vaio, FL Studio 9 and Reason 4 we're amazed that the bass is this tight. It really does sound great. The drops (such as at 2:18) are really top class.

With a bit more gear (and some better monitors!) we predict even greater things. Top stuff.

## Pof Pof O.B

[soundcloud.com/deejayob](http://soundcloud.com/deejayob)



Time for some nice, shuffling Fidgetty House. There's a distinct minimal flavour here as the track's maker Oussama Barkatou keeps things

under wraps and slowly reveals new elements to the track as it strides on. "I love the bass sound," he says. "And the minimal synth and the break... Let me say I love the whole track!" Same here, mate.

"I use an M-Audio Fast Track Ultra interface, M-Audio Studiophile CX8 monitors and an M-Audio Keystation 61 controller." We see a pattern forming. "For software I use Ableton Live and Lennar Digital Sylenth1, u-he Zebra," says Oussama. Wow. That has to be the fourth outing for Lennar's Sylenth1 this month. This thing is getting big and deservedly so.

Back to the track, there's real tension and restraint here via some smart side-chaining and great automation of your effects. We love the pumping reverb at 2:44. Everyone should load up this track and listen and learn!

Sidechaining your effects is a brilliant idea and the alternating of tight empty vacuum and wide space sound great. This is a top mix – lots of variety, lots of great sounds, and a nicely restrained mix top and bottom. Two words: Love it.



## SELECTED KIT

### Hardware

> KRK Rokit powered V6  
Tascam US-122L

### Software

> Korg Analogue Legacy Edition  
> Lennar Digital Sylenth1  
> Albino3  
> Ichiro Toda Synth1  
> Oxford Dynamics Native  
> Kjaerhus Audio Auto-Filter

## FAVOURITE GEAR

> "My KRK Rokit monitors. Since I've got those, my music just seems to sound so much better anywhere."

# Greek Water D-Jam

Contact: [Soundcloud.com/djdjam](http://Soundcloud.com/djdjam)

**T**ime for some straight up club sounds. This bit of Melodic House has

been the soundtrack to our month. "When I made it, I just got back from a month long vacation," writes its maker Mark van Mameren. "I was in a summer mood and eager to go back to producing music again." Some of that energy and fun definitely made it into the track! This is bouncy, exciting and yet still melodic and very listenable.

"I was inspired by Tiësto's track *Olympic Flame* so that's why it's called

*Greek Water*. It's a feel good combination between House and Trance." Yeah, and as such we think it deserves a little more than its 3:26 running time. Got a longer mix? Perhaps something that riffs on that great Tiesto-style romp around 2:40.

"The kick drum has been a project of its own!," says Mark. "I used an 808 kick – of course – for the low frequencies and sampled a few kicks for the top. Then I put it through CamelPhat, Oxford Dynamics Native and Waves SSL Compressor." Complicated, but all the better for it!

## Hot Pick



## SELECTED KIT

### Hardware

> Radium MIDI controller  
> Korg Triton  
> Oktava Mk-319 condenser mic  
> Applied Research & Technology V3 tube amp  
> M-Audio Studiophile BX5a monitor speakers  
> Apple MacBook  
> Dell Inspiron 580 PC  
> Griffin Technology iMic USB audio interface  
> M-Audio Firewire Solo

### Software

> Reason 4.0  
> Cubase  
> GarageBand '09  
> Logic Express 8  
> Sony Acid Pro

## FAVOURITE GEAR

> "That would have to be Logic Express 8."



# Drinks Up Godhand featuring D-Beckham, Marka & Adamack

Contact: [myspace.com/godhand9](http://myspace.com/godhand9)

**W**e just don't get enough Urban-ity here at *Future Music*. And when it comes to macking with the big dogs *FM* is always on point.

Suffice to say we love this ensemble Rap piece by – deep breath – Chad Dunbar (Godhand), Darryl Beckham (D-Beckham), Tim Adamek (Adamack) and Delon Bell (Marka).

There's some suitably shrill brass work. Some fiercely abrasive hi-hats

shimmering the top end and plenty of insane bass pressure filling it out. But it's group session interplay that we're loving the most. Plenty of nice double tracking, and different treatments for your lead vocal and Rap attacks. We dig. And lyrics? Man, you be the hotness.

The only slider we'd push here is level. Next to the House tracks this month you need a mastering job. And watch that top end. A little more mid body here would slam this out nicely.

## The Artist



### Names:

Chad Dunbar, Darryl Beckham, Tim Adamek, Delon Bell

### Where:

Louisville, Kentucky, USA, Glassboro, New Jersey, USA and Washington, Columbia, USA

**This track:** "It's a new school Hip-Hop club anthem about drinking and taking women home from the club. We ran into quite a few equipment problems while making this track, including a blown tube amp, a blown sound card and a couple of blue screens of death on the PC."

**Which bit of this track are you most proud of?**

"The rhythm section and the synths. Used Reason 4.0 for most of the rhythm section and Cubase w/ midi for the synths."

**If we were to give you £5,000 for gear what would you spend it on?**

"Yamaha PSR-8000 (I know, old school), Logic Studio Pro, Audio-Technica AT4050, MOTU 896mk3 and Tannoy Precision 8 monitors."



## Oblivion Spacebuoy

[myspace.com/spacebuoy](http://myspace.com/spacebuoy)



Just for a second we thought that was Marc Almond there. Ah, memories. Time for

some classic Synth Pop now. This retro-tinged stomper is the work of Jez Allan-Smith and H Moth. "We call it a fusion of Synth Pop and Trance resulting in a hypnotic spiritual quest of emotional confusion." Wow. We call it a nicely put together Pop tune with some nice Vince Clarke Erasare elements and a suitably po-faced Futurist vocal.

Speaking of the vocal a bucketload of compression on there would put it a bit more upfront (not louder in the mix, but just more 'pro') and some harmonies and more of those great but subtle BVs would thicken it.

There's some great synth programming and your kit list of Access Virus T12, Roland Gaia, KRK VXT8 monitors, SE Electronics Z5600A mkII Studio Condenser mic, Stylophone and an Akai Miniak are getting a good workout.

It's a great tune but some multi-tracking on the vocals and a few more tricks there would give it a push over the edge. Nice work though.

## Tomorrow Is Today Manta Ray

[soundcloud.com/mantra-ray](http://soundcloud.com/mantra-ray)



Yes! The creepy, sliding, panning ambient bass sound here is superb. Very dangerous and dark. It's Depeche Mode circa the depraved years.

There's a lot going on and while we admire the clunking, fuzzy guitar we'd be tempted to go back in and tidy it up for timing. It's a little Bernard Sumner right now, if you catch our drift. Great sound though.

"I'll leave the genre choosing to you guys. I describe it as groovy." Well we've already got DM and New Order referenced above, but we agree, it's pretty hard to classify. "I'm proudest of the organic feel I achieved from a primarily sequenced track. Laying down the guitar melody in one take helped to achieve this." Aw, now you're making us feel guilty for suggesting you tighten it up.

It's the mix of sounds (including some downright dirty synth thunks and my-first-programming experiment lo-fi sounds) that amaze though. It's dense but definable and always interesting throughout. So sit back, chill out and strum along!

## Óscar In The Sky: Part II Nontie

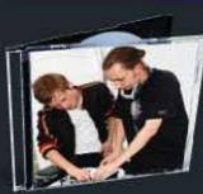
[myspace.com/estebanvicente](http://myspace.com/estebanvicente)



And drawing us to a close this month is this gorgeous chunk of highly-polished synth steel and glass. It's Vangelis' *Opera Sauvage*. It's Angelo Badalamenti's theme to *The Beach*, it's William Orbit's *Pieces In A Modern Style*, it's... Great.

And this is just part two. We suggest heading to Nontie's (aka Esteban Vicente) myspace page or soundcloud (at [soundcloud.com/nontie](http://soundcloud.com/nontie)) to hear more of his classical contemporary work and wind down after a hard day with a bit of class. **FM**

## Hot Pick



### SELECTED KIT

#### Hardware

> Apple MacBook Pro 17"  
M-Audio Profire 610  
KRK RokIt RP5  
M-Audio Keystation 49

#### Software

> Logic Pro 9  
> Reason 4

### FAVOURITE GEAR

> "As long as we have the MacBook Pro, a keyboard and some decent monitors we're able to make tunes!"



## Schlap! Bridgers

Contact: [soundcloud.com/bridgersuk](http://soundcloud.com/bridgersuk)

**B**ang! The kick that opens this up is like a bomb in the face. You are – by

order of Jack Burden and Bryn Dolman (aka Bridgers) commanded to the dancefloor!

There's the obligatory side-chain fiesta, a grizzled oversize bass and – for the second time this month – an unhinged lead line that can shatter small mammals

"We like the reverb automation on the bridge section," say the guys. "It's the way the track sounds huge when it drops back into just the bass and kick." It's

almost as though someone has been reading Future Music. We salute thee.

Yup that hi-frequency marching snare drum at 3:08 (combined with some nice latin timbale work) dropping to the bass (complete with some new Glitch-y edits) at 3:30 is superb. Have you tried doing a straight cold WAV to WAV edit here? Just to make the drop even sharper and more pronounced?

We like everything about this. It's the right length, there's plenty to keep you occupied and up there and arrangement is bang on.

## For our favourite...

A superb sE X1  
microphone



sE's hand-made production process manifests itself not only in the build quality, which is excellent, but in the performance of the X1 too. A great all-rounder

Future Music issue 223

## Unsigned and Unloved? Get Your Tracks on These Pages!

If you're an amateur music maker wanting to take the next step then we want to help



### 1 Non pros please!

Are you unsigned, non-MCPS or PRS registered and making music? Our Demos pages are for you. We want to broadcast your work to the world! Head to [futuremusic.co.uk](http://futuremusic.co.uk), our virtual home.



### 2 Look for the SoundCloud DropBox

We're big fans of SoundCloud, the online audio sharing service that let's you effortlessly pass your audio around. Check out [soundcloud.com](http://soundcloud.com) to get your own SoundCloud box. Ours is on the right.



### 3 Click on the box and upload

Click on Future Music's Dropbox then click on 'Choose files'. MP3s only please. YOU MUST add a description – your name, address, band name, track name – and give us your email address too!



### 4 Start work on that bio...

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order code 203048 € 175.- **£ 153.-**

## Olympus LS-5

### Portable digital recorder

24bit/96kHz, WAV, WMA, MP3 and PCM recording, built-in microphone, large back-lit display, 2GB internal memory, SD/SDHC card extension slot, internal stereo speaker, USB 2.0 connection, optional remote control, dimensions WHD: 4.8 x 13.15 x 2.24cm, weight: 165g (incl. battery).

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Up to 320kbps mp3 playback and recording, recording on SD or SDHC card (up to 8GB), integrated stereo condenser mic, OLED display, built-in preview speaker, incl. wireless remote control with split function, USB 2.0, stereo mic in, stereo line in, incl. power supply, 512MB SD card, USB cable, Cakewalk Pro Audio Creator LE, wireless remote controller and small table mounting plate. Bundle incl. 4GB SD card.

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4-track recording at the same time on SD/SDHC card possible, 8-track playback - stereo drum track, usable as USB audio interface and effect engine, HiFi (MT2) Roland/Boss format and 16bit stereo WAV format, LCD display, headphone out, USB for audio I/O, MIDI I/O, incl. SD card, power supply, USB cable and Cakewalk Sonar 8.5 LE, dimensions WHD: 28.8 x 5.8 x 18.4cm, weight: 872g. Bundle incl. the t.bone MB85 Beta dynamic microphone.

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order code 253699 € 515.- **£ 449.-**

## Hercules DJ Console RMX

### DJ controller

Integrated USB audio interface, 2 jog wheels, 6 faders, DJ buttons for DJing control, FX and loop buttons, mic in, headphone out, 4x line outs (4x mono balanced jack), 4 RCA outs, 2x stereo ins, includes VirtualDJ DJC edition software (PC/Mac).

order code 208113 € 269.- **£ 235.-**

## Behringer DDM 4000

### 32bit digital DJ mixer

Beat-synchronized sampler, 4 multi-FX sections, 2 patented BPM counters, digital crossfader and MIDI, 4x phono/line stereo channels, 2x mic inputs with gain, EQ, talk function and FX, 4x stereo channels with gain, programmable parametric 3-band EQ with kill function, fader curve control and flexible crossfader.

order code 206918 € 299.- **£ 261.-**

## Pioneer CDJ-350

### Single CD player

Plays MP3, AAC, WAV, AIFF, USB (flash recorder, disc drives), USB A/B connection, includes Rekordbox music management software, beat display function for better scratch and looping performance, auto beat loop function, dimensions: 21.8 x 29.6 x 10.8cm, weight: 2.7kg, system requirements: Windows VISTA/XP, Mac OS X 10.4 or higher.

order code 249908 € 589.- **£ 514.-**

## Pioneer DJM-700

### Professional 4-channel DJ club mixer

Crossfader assignment, fader start, 3-band EQ (-26dB to +6dB), talk over (-20dB), peak level meter, rotary pots for master output, Dimensions: 32 x 38.1 x 10.8cm (WxHxD), Weight: 7.5kg.

Finish: Black order code 118996 € 811.- **£ 707.-**  
Finish: Silver order code 119965 € 811.- **£ 707.-**

## Pioneer CDJ-850

### Single DJ CD player

MP3, AAC, WAV, AIFF, 24bit/48kHz, HiD and MIDI control by USB, new audio output system with Wolfson DAC processor, quantized beat loop, advanced auto beat loop, plays Audio CD, CD-R, CD-RW, USB, frequency response: 4Hz - 20kHz, dimensions: 30.5 x 36.4 x 10.5cm, weight: 3.3kg, incl. Rekordbox music database management software, Mac OS X (10.4.6 and higher), Win 7 & XP.

order code 251872 € 885.- **£ 772.-**

## Alesis Multimix 4 USB

### 4-channel mixer with digital output

16bit, 44.1kHz signal on USB, 4 line level ins, 2 XLR ins with gain and switchable 48V phantom power, high impedance guitar input, 2 channel EQ on mics, multicolor LED metering, main and headphone outs with independent level controls, incl. power supply, dimensions WHD: 15.2 x 19.6 x 5cm, weight: 0.6kg.

order code 236244 € 95.- **£ 83.-**

## Behringer RX1602 Eurorack Pro

### 16-channel line mixer in rack format

16x balanced line inputs, extremely noise-free ULI design, transparent sound, balance and volume control per channel, monitor/FX send, mute and clip LED, stereo jack output, headphone out with separate volume control, ALPS pots, shielded transformer, very solid construction.

order code 163892 € 115.- **£ 100.-**

## Soundcraft EFX 8

### 8-channel mixing desk

8x mono inputs, 2x stereo inputs, inserts on all channels, 1x FX send, 1x aux send (pre/post), 48V phantom power, solo/mute switch, integrated Lexicon FX with 32 presets, peak LEDs on all channels, integrated power supply, Dimensions: 33 x 9.1 x 36.2cm, Weight: 4.6kg, Optional rackmount available.

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## Behringer Xenyx X2442 USB

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order code 242913 € 309.- **£ 269.-**

## Yamaha MG 166cx

### 16 channel mixer

8x mono mic/line ins (XLR/jack), 2x mic/line ins (XLR/stereo jack), 2x stereo line ins (jack), 3x aux sends, 8x inserts, 3-band EQ with parametric mids, internal compressors per mic channel, SPX FX processor with 16 programs, 18dB high pass filter, high-end mic preamps, 48V phantom power, Dimensions: 47.8 x 10.2 x 48.9cm, Weight: 5.5kg.

order code 115511 € 358.- **£ 312.-**

## Alesis MultiMix 16 FireWire

### 16ch. mixer with FireWire interface

8x mic/line ins, 4x balanced stereo line ins, 3-band EQ per channel, 2x aux send/returns, 100x 28bit FX programs, headphone out, FireWire interface: 18 ins, 2 outs, 24bit/48kHz, ASIO/WDM drivers for Win XP SP2, Core Audio drivers for Mac OS X, includes Cubase LE.

order code 186079 € 389.- **£ 339.-**

## Mackie Onyx 32.4

### Live mixer

28x mono ins, 4x subgroups, 3x outs, 4-band EQ with fully parametric mids and fixed lo/hi, 30dB pad, low cut, 6x aux sends, LED and insert per channel, 6x2 matrix, internal compressor/limiter, D-Sub 25 direct out, talkback, phones out, main insert, internal power supply, Weight: 21.8kg.

order code 194635 € 1150.- **£ 1003.-**

## Phonic Summit

### Digital mixer

16 channels, 24bit/96kHz, phantom power, 17x 100mm motor fader, touch screen, 26 semi-parametric 4-band-EQ for all inputs, AES/EBU I/O, 8 multi-function outs, 2 effect processors, 26 dynamic processors, SD card, optional Expansion Card compatible with Win XP/Vista/7 and Mac OS X (incl. Snow Leopard), ext. power supply, weight 10.5kg, incl. 19" rackmounts.

order code 246336 € 1699.- **£ 1429.-**

## Presonus StudioLive 16.4.2

### 16-channel digital mixer

Built-in 32x18 FireWire audio interface, 'Fat-Channel' processing with 4-band EQ, compressors, limiters and gates, 16x inputs, 6x auxiliary mixes, 4x subgroups, 16x Class A XMAX mic preamps, 44.1kHz & 48kHz sample rate, 2x master DSP FX, talkback, Dimensions: 43.7 x 17.5 x 56.8cm (WxHxD).

order code 225534 € 2189.- **£ 1891.-**

## Mackie DxB200 Refurbished Bundle

### Digital open architecture mixing desk

72ch/96kHz (36ch/192kHz), 8 buses, 2 touch screens, 25 motorised faders, 4-band EQ, compressors and gates, VST plug-in compatible, 2 PCI slots, flexible I/O, 9 slots for optional I/O cards (not included in basic config), Mackie Control Universal mode for DAW control. Bundle incl. Xbus AES card, Xbus digital card and 2x Xbus line card, B-Stock with full warranty!

order code 251867 € 3869.- **£ 3374.-**



www.thomann.de

Telephone Hotline: +49 9546 9223-55

Fax: +49 9546 9223-24

## The Thomann services

- 30-day money back guarantee
- free shipping to the UK and Ireland on orders above £159

### Behringer U-Control UMX 490

#### Master keyboard

49 keys, real-time rotary controls plus 10 assignable switches, pitch bend- and modulation wheel, incl. batteries, energyXT2.5 Compact Behringer Edition and NI KorePlayer Software.

order code 261886 €115.-  
**€100.-**  
 Behringer U-Control UMX 610  
 61 keys. €145.-  
 order code 261896 **€126.-**

### Native Instruments Traktor Kontrol X1

#### USB DJ controller bag bundle

Instant recognition by Traktor, software controlled backlit buttons, fits perfectly alongside a standard club mixer, super-intuitive loop and cue control section, 8 knobs and 8 buttons, push encoders, expandable (connect two X1s to control four decks), incl. Traktor LE, Kore2 Player (incl. selection library) and MIDI templates for controlling other DJ and performance software. Bundle incl. X1 Bag

order code 243915 €199.-  
**€174.-**

### Doepfer Dark Energy DVD Bundle

#### Expander

Monophonic stand-alone analog synthesizer with USB and MIDI interface, USB, MIDI input, 4 CV outputs, 1 gate output, external power supply, dimensions WDH: 18.5 x 14.5 x 6.5cm, weight: 1.2kg. Bundle including german video tutorial DVD "Hands on Synth Tutorial".

order code 245106 €375.-  
**€327.-**

### Native Instruments Maschine

#### Groove production studio

Pad controller, 16 dynamic pads with aftertouch, 2 backlit displays, 11 rotary knobs, 41 buttons, USB-powered, MIDI I/O, pattern-based sequencer with 64 patterns per group, step sequence programming and realtime recording, drum grid and piano roll editors, sampler, > 20 built-in effects, > 5GB sounds, PC/Mac.

order code 223060 €535.-  
**€467.-**

### Yamaha Motif XS 7

#### 88-key workstation

355MB Wave ROM, 128 voices, presets: 1024 normal voices + 64 drum kits, colour display, 4-part arpeggiator, 4 layers or splits in performance mode, sequencer, internal sampler, USB, Ethernet

order code 111124 €2099.-  
**€1830.-**

### IK Multimedia AmpliTube iRig

#### Guitar amp and effect system

for iPhone, iPod Touch and iPad, real-time guitar and bass mobile multi-FX app, full rig made by 3 simultaneous stompboxes + amp + cabinet, + mic, 10 stomp, 5 amps, 5 cabinets, 2 mics available, import and play along with songs and backing tracks with real time effects, 36 presets, includes tuner/ metronome, free, LE and full versions available, same low-latency as any Mac/PC system.

order code 243318 €28.-  
**€24.-**

### ESI DuaFire

#### 24bit/96kHz FireWire audio interface

2x ins with level controls (1/4" jack), mic preamps with phantom power (XLR), 2x hi-Z ins, 4x analogue outputs, direct input monitoring with level control, headphone out, bus powered or via separate power supply. Supports DirectWire 3.0, MME, ASIO 2.0, GSIF 2.0.

DirectSound and Core Audio. Includes power supply and Steinberg Cubase LE 4. €95.-  
**€83.-**  
 order code 206255

### M-Audio Fast Track MKII

#### USB audio interface

24bit/48kHz, XLR microphone input with 48V phantom power, 1/4" instrument input with gain control, 1/4" stereo headphone output, RCA stereo speaker outputs, plug-and-play USB connection (USB 2.0 compatible), including Pro Tools M-Powered Essential.

order code 233736 €118.-  
**€103.-**

### ESI ESPI010e

#### 24bit/96kHz PCIe express audio interface

PCIe card with external 19" interface, 8 analogue ins (2 with mic preamp and 2 Hi-Z instrument), +48V phantom power, up to 8 analogue ins and outputs, coaxial S/PDIF I/O, 2 headphone outputs, 2 MIDI I/Os, support for DirectWire 3.0, EWD driver, MME, DirectSound, ASIO 2.0 support, Windows 7/Vista/XP/2000/2003 compatible, power supply optional, incl. Steinberg Cubase LE 4.

order code 230632 €155.-  
**€135.-**

### M-Audio Fast Track Pro

#### USB audio interface

4x4 24bit/44.1kHz, stereo in up to 24bit/96kHz, USB powered, 2x mic/instrument preamps with switchable phantom power, 2x ins, 2x balanced line outs, 4x additional RCA outs, S/PDIF coaxial I/O, S/PDIF out (AC-3/DTS surround sound compatible), MIDI I/O, compatible with both Mac and PC.

order code 184360 €155.-  
**€135.-**

### Digidesign MBox 2 Micro

#### Mobile Pro Tools LE system

About the size of a typical USB flash drive, high-quality sound, stereo out for headphone or speaker monitoring (no audio ins), includes Pro Tools LE, Bomb Factory® and Digirack™ plug-ins and Digidesign's Xpand™ sample-playback/synthesis workstation, for Win XP and Mac OS X, USB bus powered. Work with Pro Tools and compose wherever inspiration takes you.

order code 136283 €225.-  
**€196.-**

### Presonus Firestudio Project

#### FireWire audio interface

24bit/96kHz, 8 XMAX Class A mic preamps, 8 analogue micline ins, 2 instrument ins, 8 analogue line outs, S/PDIF digital I/O, MIDI I/O, balanced send/return, zero latency monitoring with FireControl mixer/router, headphone output, 8 input level meters, includes recording software One Artist, 19"/1U.

order code 199889 €389.-  
**€339.-**

### M-Audio Fast Track Ultra 8R

#### USB 2.0 audio interface

24bit/96kHz, MX Core DSP 8x inputs & 8 outputs, 8x Octane-based mic preamps with 48V phantom power, 2x headphone outputs with volume control, 2x inserts, 2x instrument inputs. Dimensions: 19"/1U

order code 207668 €398.-  
**€347.-**

### Apogee Duet Bundle

#### FireWire audio interface

4x4 24bit/96kHz, 2 channels, FireWire 400 I/O, breakout cable with 2 XLR mic ins, 2 1/4" jack instrument ins, 2 1/4" jack monitor outs, multi-segment LED display input and output levels, multi-function controller knob, headphone out, Maestro software for advanced control and low latency mixing, compatible with any Core Audio compliant audio application, compatible with Mac OS X Core Audio. Bundle incl. original Apogee carry case and 2GB USB stick.

order code 209773 €415.-  
**€362.-**

### Focusrite Saffire PRO 40

#### 24bit/96kHz FireWire audio interface

20x I/O, 8x mic preamps, 8x analogue I/O (2x micline/inst, combo XLR, 6 mic/line combo XLR), ADAT I/O, 2x S/PDIF I/O, 2x monitor outs, monitor switch, 2 separate headphone buses, MIDI I/O, zero-latency DSP mixer/router, internal power supply, includes plug-in suite. Dimensions: 19"/1U. Weight: 3kg

order code 219725 €429.-  
**€374.-**

### Native Instruments Komplete 7

#### Complete package of software

Contains: Kontakt 4, Absynth 5, Guitar Rig 4 Pro, Reaktor 5.5, Battery 3, FM8 and Massive, more than 10000 presets and sample libraries with 100GB, all instruments as stand-alone or plug-in usable, supported formats: stand-alone, Audio Units, VST, RTAS, ASIO, Core Audio, Core MIDI, DirectSound.

order code 252237 €459.-  
**€400.-**

### MOTU Ultralite MKIII Hybrid

#### FireWire and USB audio interface

24bit/192kHz, 2 mic/instrument ins, 6 bal. ins and 10 outs (1/4" TRS), 48V phantom power, S/PDIF I/O, headphone out, CueMix FX, internal DSP, LCD display, suitable for use as a standalone mixer, compatible with Windows and Mac, supports WDM, ASIO and Core Audio, incl. AudioDesk software for Mac.

order code 239141 €479.-  
**€418.-**

### Focusrite Liquid Saffire 56

#### FireWire audio interface

24bit/192kHz with Liquid preamps, 28x I/O, 8x XLR mic ins, 2x ADAT I/O, coax S/PDIF I/O, 8x analogue ins (1/4" balanced jack), 10x analogue outs (1/4" balanced jack), Word Clock, MIDI I/O, includes Focusrite VST/AU plug-ins. Dimensions: 35 x 9 x 23.5cm (19"/2U). Weight: 5kg

order code 228525 €679.-  
**€592.-**

### RME HDSPE Madiface

#### PCI express interface

MAI ExpressCard (34mm standard) for notebooks, 64 input/64 output channels, 1x MAI I/O (optical and coaxial), 44.1kHz/192kHz, clock-mode slave and master, sync sources: MAOI coaxial, MAOI optical and internal connections: breakout box input and output MAOI optical, MAOI coaxial (BNC), MIDI I/O, incl. Digicheck software, ExpressCard MAOI, 1m cable (IEEE 1394), driver-CD.

order code 213736 €1299.-  
**€1133.-**

### Digidesign Digi 003 Factory Complete

#### Complete Production Toolkit

18 simultaneous channels of audio I/O, 8 analogue ins and outs, 4 mic preamps, 48V phantom power, 8 motorized faders, 8 rotary encoders for pan/send/meter/plug-in control, 8-channel ADAT optical I/O or 2-channel S/PDIF optical I/O, 1x MIDI in, 2x MIDI out, BNC word clock I/O, Digidesign Pro Tools LE 8, Factory plug-in bundle and Complete Production Toolkit.

order code 232118 €3055.-  
**€2664.-**

### Rode NT1-A Complete Vocal Recording Solution

#### Large diaphragm microphone

20Hz-20kHz, 100Ω impedance, 132dB dynamic range, 137dB max SPL. Includes SM6 deluxe shockmount, 6m cable and Peter Freeman 'Studio Secrets' tutorial DVD.

order code 235937 €179.-  
**€156.-**

### Rode T-1000 Thomann Edition

#### Large diaphragm condenser microphone

Identical as Rode NT-1000, transformerless SMT circuitry, 1" HF-2 capsule with gold-plated diaphragm, incorporating internal shock mounting, 134dB dynamic range, 140dB SPL capabilities, frequency response 20Hz - 20kHz. Cardioid polar pattern, Thomann Edition in durable satin black finish including shockmount SM6, cable and bag.

order code 247421 €211.-  
**€184.-**

### Shure SM 7 B

#### Studio microphone

Dynamic studio microphone with cardioid polar pattern, 50Hz-20kHz, bass roll-off switch, mid-boost switch, 150V, switched against broadband interference, fixed stand adapter, XLR connector, includes windscreen.

order code 129929 €385.-  
**€336.-**

### EV RE20

#### Dynamic large diaphragm microphone

RE series, cardioid, switchable HP filter, variable D design, 150Ω, 45Hz-18kHz, includes clip and box, ideal for vocals, brass and bass drum. Length: 217mm. Diameter: 54mm. Weight: 737g

order code 128926 €449.-  
**€392.-**

### Neumann TLM 102

#### Large diaphragm condenser microphone

Cardioid pattern, 20Hz-20kHz, 50Ω impedance, 128dB-A equivalent noise level, 144dB max SPL for THD 0.5%, includes SG2 stand mount. Weight: 260g.

order code 237769 €539.-  
 Finish: Nickel  
 order code 237769 €470.-  
 Finish: Black

### tc Helicon Harmony-G

#### Compact vocal processor

Harmony arrangement algorithm listens to guitar and voice to follow your music, 6 reverb/delay combinations for vocal and guitar, 10 presets each with A/B location, selectable harmony voicing, XLR mic in with 48V phantom power, stereo line out (balanced XLR), guitar in and pass-thru for separate amplifier, includes external power supply.

order code 206731 €149.-  
**€130.-**

### tc Helicon VoiceTone Create

#### Vocal FX unit

99 music style based FX combinations, 5 'favourite' user presets, XLR mic level I/O in stereo or mono, clean studio quality mic preamp with phantom power, 2x XLR outs (for mono or stereo operation), tap tempo function.

order code 117131 €149.-  
**€130.-**

### Behringer DCX2496 Ultradrive Pro

#### Digital speaker management system

3x analogue inputs (one can be used as an AES/EBU input) and 6x analogue outputs, high-end AKM 24bit/96kHz A/D and D/A converters, large selection of EQs and delay for each input and output, zero attack limiter, flexible output configurations, individual crossover filter types.

order code 162451 €259.-  
**€226.-**

### SPL GoldMike 9844

#### 2-channel valve preamp

Discrete Class A solid state, 48V phantom power, phase reverse, pad function, flair presence enhancement, very clear and warm sound. Dimensions: 19"/2U

order code 123370 €425.-  
**€371.-**

### Universal Audio LA-610 MKII UAD-2 Duo Bundle

#### Classic tube recording channel

Based on the legendary Bill Putnam 610 tube mic pre and EQ, Authentic Teletronix LA-2A style T4 opto-compressor, complete vintage channel strip, mic pre with gain and level controls, tie bypass, large metering and improved signal output. Bundle incl. Universal Audio UAD-2 Duo PCIe DSP Card.

order code 252465 €1499.-  
**€1307.-**

### KRK RP5 Rokit G2

#### Active studio monitor

45W, 5" + 1" speakers, 53Hz-20kHz, magnetically shielded. Dimensions: 27.6 x 18.5 x 25cm. Weight: 8kg. Unit price!

order code 213024 €149.-  
**€130.-**  
 KRK RP8 Rokit G2  
 8" + 1", 140W.  
 order code 213090 €264.-  
**€230.-**

### Genelec 8020BPM

#### Active 2-way studio monitor

Power switch, 60Hz-20kHz (±2.5dB), 105dB SPL peak @ 1m, 95dB SPL @ 1m, 105mm (4") high efficiency bass driver, 19mm (3/4") metal dome tweeter with Directivity Control Waveguide, 3kHz crossover, magnetically shielded, aluminium cabinet, includes wall bracket. Power per channel: 20W (bass), 20W (treble). Dimensions: 22.6 x 15.1 x 14.2mm. Weight: 3.7kg. Unit price!

order code 235038 €279.-  
**€243.-**

### Yamaha HS50M Stativ-Set

#### Active 2-way studio monitor

70W bi-amped bass reflex system, 5" woofer, 3/4" tweeter, 55Hz-20kHz, XLR & TRS ins, adjustable input level, mid EQ, room control, high trim, switchable low cut, fully magnetically shielded. Bundle with 2x HS50M and 1 pair Millennium BS-500 adjustable nearfield monitor stands.

order code 244787 €311.-  
**€271.-**

### Adam A7 Special Edition

#### Active nearfield studio monitor

6.5" Rohacell / kevlar sandwich woofer, A.R.T. tweeter, frequency range 40Hz to 35kHz, 100W (sin), 150W (rms), XLR and RCA input, dimensions: 18 x 33 x 28cm, weight: 8kg. Unit price.

black piano lacquer order code 241073 €377.-  
 white piano lacquer order code 244797 €377.-  
**€329.-**

### Yamaha HS80M stand bundle

#### Active 2-way studio monitor package

120W bi-amped bass reflex speaker, 8" woofer, 1" tweeter, 42Hz-20kHz, XLR & jack input, mid EQ, room control, high trim, switchable low cut, magnetically shielded. Bundle includes 2x HS80M and 1 pair of Millennium BS-500 nearfield stands.

order code 227555 €489.-  
**€409.-**



# Gear Chart

Are you giving your music a fresh kick? In the market for new kit? Finally putting together that dream set up? Then you'll need *FM*'s exclusive guide to all our favourite gear

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## Hardware Synths



**Dave Smith Instruments Tetra** | £552

**Review FM219** Super Mopho meets cut-down Prophet '08 in this fantastic analogue polyphonic synth.



**Dave Smith Instruments Prophet 08** | £1,499

**Review FM194** A beast of analogue power. Warm, fat and wooden-ended – what more do you want?



**Clavia Nord Wave** | £1,395

**Review FM196** If you liked the Nord Lead you'll love the Wave. It's more versatile and sounds fantastic.



**Moog Taurus 3** | £2042

**Review FM226** With more lows than an Eastenders omnibus, this beast will blow your socks off. Modern features make this a dream to use.



**Roland Gaia SH-01** | £579

**Review FM227** No menus with hands-on controls all over. Despite the ropery presets, Roland are starting to get back to what they do best.

## Soft Synths



**FXpansion D.CAM Synth Squad** | £179

**Review FM217** A powerful synth collection from FXpansion, favoured by Electro House heroes.



**Rob Papien SubBoomBass** | £89

**Review FM215** Another superb synth from Rob Papien that caters for all your bass-in-your-face needs.



**Spectrasonics Trilian** | £215

**Review FM224** A long-awaited update to the monster of all bass software. An instant classic.



**XILS Labs Poly KB** | £149

**Review FM228** A lush sounding recreation of the classic and rare. Poly Kobl. Great tones with the benefits of MIDI and automation.



**u-he Zebra 2.1** | \$199

**Review FM183** Subtractive and analogue synthesis with an ultra-phat sound. Ideal for shaking ground and wrecking speakers. In a good way.

## MIDI Controllers



**Novation LaunchPad** | £149

**Review FM220** Great features at an amazing price make this Ableton controller a performance dream.



**Akai APC20** | £170

**Review FM227** A more compact, better-value version of Akai's Ableton front end. Robust build and great features make this very gig-worthy.



**Livid Instruments Block** | £349

**Review FM223** Built out of wood and metal, the Block is a great alternative to the more mainstream controllers.



**Native Instruments Kontrol X1** | €199

**Review FM223** An intuitive, well-built controller at a great price. If you're a Traktor user, try this.



**Vestax VCM-600** | £649

**Review FM216** A fantastic way to control Ableton Live. Vestax deliver a well built, fun and feature packed DJ style performance controller.



## How Our Chart Works

**W**e've fought, bitched, whinged and racked-up all our favourite gear that's available today into our Gear Chart. If it makes an appearance on these pages, then it's well worth a look. We've appraised the hardware in terms of its price point, performance and usability, along with the fond memories and sheer joy factor of cranking it up for the first time. We're not saying that keyboard number six is 'better' than keyboard number seven, for example. We're saying that you should have a think about the music you want to make, read our recommendations below, and check out the gear that sounds cool. Each month we'll be updating our charts with new finds and introducing new lists to keep things fresh. Special mention to the Digital Audio Workstation bit at the back, which should help you nail your ideal recording solution. We out.

## The FM Awards

**Editor's choice.** If you see this little flag tagged on to one of our reviews it's impressed us above and beyond the usual excellence.

**Platinum.** Buy these. Unless you've got a perfectly good alternative or produce your music on comb and paper.

**Value.** A special chapeau to bits of gear that deliver the goods without breaking the bank. Value awards mean great gear at even better prices.

## The Charts This Month...

|            |                                   |                                                          |
|------------|-----------------------------------|----------------------------------------------------------|
| <b>120</b> | <b>Hardware Synths</b>            | From two-octave upstarts to two-grand monsters           |
| <b>120</b> | <b>Soft Synths</b>                | Our pick of sound-producing software                     |
| <b>120</b> | <b>MIDI Controllers</b>           | The best performance and studio controllers in town      |
| <b>122</b> | <b>Monitors</b>                   | Record, mix and master with confidence                   |
| <b>122</b> | <b>Keyboard Controllers</b>       | Everything you need from portables to studio staples     |
| <b>122</b> | <b>Audio Interfaces</b>           | Get audio into your computer with quality and style      |
| <b>122</b> | <b>Effects and Manglers</b>       | Warp your sound and break new ground                     |
| <b>124</b> | <b>Performance Samplers</b>       | Take control of your audio live and direct               |
| <b>124</b> | <b>High-end Audio Plug-ins</b>    | Treat yourself to the best that money can buy            |
| <b>124</b> | <b>Field Recorders</b>            | Record your band or go searching for found sound         |
| <b>124</b> | <b>Microphones</b>                | The best mics around for everyone's budget               |
| <b>125</b> | <b>eBay Classic Retro Finds</b>   | Keep an eye out for our suggested list of nostalgic love |
| <b>125</b> | <b>Ways To Stand Out</b>          | Dare to be different and reap the rewards                |
| <b>125</b> | <b>Digital Audio Workstations</b> | Which DAW is best for the music you want to make?        |

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**tomoberheim SEM** | €950

**Review FM232** A classic returns. Creamy filters and powerful oscillators with modular capabilities



**Waldorf Blofeld Keys** | €699

**Review FM211** A huge amount of exciting presets and solid good looks make for a killer all-round synth.



**Korg microKorg XL** | £439

**Review FM210** This fresh update of everyone's favourite mini-synth gives a new engine and a great vocoder.



**Arturia Origin Keyboard** | £2,499

**Review FM231** An enormous, well-built and massively in-depth synthesizer powerhouse.



**Dave Smith Mopho Keys** | £550

**Review FM229** Hands-on controls and wooden-ended good looks make this another winner from DSI.



**Spectrasonics Omnisphere** | £299

**Review FM207** Great sounding, flexible and unique, this is truly a powerhouse of sound design.



**u-he Ace Synth** | €69

**Review FM227** At such a low price, you can't go wrong with this software modular synth. Patches are clear and crisp and it's all very fun to use.



**Waldorf Largo** | £175

**Review FM217** Waldorf take their Blofeld sound and technology and create a powerful and unique soft synth. Check it out.



**Arturia Jupiter-8V** | £150

**Review FM189** One of the definitive, all-time great poly synths is now a plug that delivers thunderous bass as powerful as its searing leads.



**Lennar Digital Sylenth1** | €139

**Review FM208** This simple-to-use, Virus-like synth comes packed with a great set of presets.



**Novation Nocturn** | £69

**Review FM199** Your cheapest entry into the world of Automap, the Nocturn is a mini bargain.



**Akai APC40** | £400

**Review FM215** Although there's still a few things that could be addressed, this is still the best option for performing with Ableton Live.



**Akai LPD8 & LPK25** | £45 each

**Review FM224** A better keyboard design and build than its rivals. Shame about the short throw rotaries.



**Korg nanos** | from £36

**Review FM209** The keyboard lets the series down, but these portable controllers are still a bargain. They're bundled with great software, too.



**Behringer BCF-2000** | £140

**Review FM153** Eight 100mm motorised faders for such a low price, this is still a great controller.



# Gear Chart

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## Monitors



**Event Opal** | £2,498

**Review FM215** Easily the best active monitors you can get for this price. Our reviewer bought a pair and the rest of the *FM* team want a pair too!



**Focal JM Labs Twin 6 BE** | £829 each

**Review FM206** These are some of the best sounding speakers we've ever heard. Worth every penny.



**Genelec 8040** | £1,000

**Review FM181** Genelecs are always a favourite with *FM* and most of our experts use them so it's no surprise that we love these.



**Samson Rubicon R5A** | £235

**Review FM181** Trustworthy for reference monitoring but priced at an unbelievable level. Get some in.



**Acoustic Energy AE22** | £899

**Review FM201** For accurate mixing, these are one of the best sets we've used. Very highly recommended.

## Keyboard Controllers



**M-Audio Axiom Pro 49** | £318

**Review FM216** Our reviewer found this to be the most tightly integrated DAW controller ever.



**Novation Nocturn 25** | £190

**Review FM221** A well-rounded well-priced controller that does plenty of great work with Automap 3.3.



**Korg Kontrol 49** | £319

**Review FM160** Great keys and pads, with looks and build that elevate it above the competition. But there are easier to set up controllers out there.



**Akai MPK49** | £299

**Review FM197** A well made deck that's the control section from the legendary MPC with 49 keys strapped to the front. Sleek.



**CME VX5** | £499

**Review FM192** It's built like a tank and adds some awesome motorised faders into the mix. An excellent professional choice.

## Audio Interfaces



**M-Audio ProFire** | £359

**Review FM202** A brilliant interface that includes the great Octane Mic Pres, making it a superb recording solution at an amazing price.



**MOTU Traveler** | £795

**Review FM177** Came out on top in our FireWire group test. Enough ins and outs for any project studio and still portable too. A real all-rounder.



**Apogee Duet** | £329

**Review FM200** Getting the quality Apogee sound on the move is now easier than ever thanks to this tiny silver wonder.



**RME Fireface UC** | £746

**Review FM219** Robust reliability, rock-solid build quality and the trusted RME sound. Plus it's now on a lovely USB connection.



**Metric Halo ULN-2 DSP** | £1,279

**Review FM206** Great sound, onboard DSP and some of the best pres we've ever heard inside an interface.

## Effects Plug-ins and Sound Manglers



**Korg Monotron** | £59

**Review FM229** A genuine MS20 filter with audio input, a fat analogue oscillator and LFO make this a must-have studio toy for everyone.



**Rodec / Sherman Restylr** | £649

**Review FM219** A live filter that sounds good enough for the studio. Missing MIDI, but worth a look.



**Moog MoogerFooger MIDI MuRF** | £419

**Review FM220** The old MuRF filters combine with the attractive features of MIDI and software patch editing.



**Peavey ReValver MkIII** | £179

**Review FM208** This amp-modelling software lets you delve deep into the amps circuits for true soft-modding.



**Evol Fucifier** | £1,996

**Review FM228** The oddest outboard we've reviewed produces the most inspiring sound at a price that will keep the faint-of-heart away.



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**PMC DB1S-AII** | £2,056

**Review FM225** You get what you pay for with these monitors. Adding a PMC sub will help you feel the real bottom end though.

**KRK Rokit RP5 G2** | £270

**Review FM205** These are so nice to work with our reviewer bought a set for his own studio. Great value monitors with a great punch.

**Adam A5 Studio Monitors** | £499

**Review FM209** Though they're at the budget end of the Adam range, these compact near-fields still deliver.

**Unity Audio The Rock** | £1,750

**Review FM232** One of the most brutally honest studio speakers – The Rock's can handle anything.

**APS IO Active Monitors** | £919

**Review FM216** These provide an honest listening experience that could threaten the big boys.

**M-Audio Axiom 49** | £270

**Review FM232** Much of the power of its older Pro brother but that handy bit cheaper.

**Novation 49SL Compact** | £269

**Review FM193** The stripped-down alternative to a full-size SL. Cheaper, but still packed with unique features.

**Akai MPK88** | £600

**Review FM226** A few minor issues considering the high price, but a great weighted hammer action keyboard redeems this controller.

**M-Audio Mid Air 25** | £199

**Review FM181** Not only can you sling it in a bag, but you can also stride to the front of the stage thanks to its wireless power too.

**Korg microKontrol** | £275

**Review FM143** Great build quality and looks and while its reduced-sized keys are an acquired taste, it's certainly more portable as a result.

**Echo Audiofire Pre8** | £579

**Review FM228** A very high-quality interface from Echo Audio – heavy on I/O and mic pre quality.

**Mackie 1220i** | £799

**Review FM224** This hybrid mixer and interface covers all recording bases in a neat package, with the added benefit of Pro Tools compatibility.

**Apogee One** | £161

**Review FM230** The same high quality Apogee sound you'd expect but with a simple design and limited I/O to keep costs down.

**Presonus FireStudio Mobile** | £269

**Review FM224** Not the cheapest mobile interface, but great I/O make it worth a look.

**Mackie Blackjack** | £149

**Review FM233** A fantastic option for the portable recorder or producers on a budget. Great pres, latency-free monitoring and a solid build quality.

**Electro-Harmonix Voice Box** | £160

**Review FM213** Give this a decent input and it will output robot voices or perfect harmonies with ease.

**OTO Biscuit** | £529

**Review FM225** Gorgeous design details and fantastic for anyone who fancies a bit of lo-fi 8-bit computer game crunch in their music.

**TC Helicon VoiceTone Synth** | £225

**Review FM221** A few teething problems, but this is still a fantastic hardware vocoding and tuning tool.

**Audioease Speakerphone 2** | £400

**Review FM217** This creative and comprehensive speaker emulator adds air to your sounds and mixes.

**Avid Digidesign Eleven Rack** | £789

**Review FM222** It's a guitar processor that makes re-amping a breeze. Plus it's a Pro Tools interface to boot!



# Gear Chart

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## Performance Samplers



### Korg microSampler | £436

**Review FM219** Easy to use sampling with some clever extras. Another micro-dominator from Korg.



### Akai MPC 5000 | £1,549

**Review FM203** The 5000 isn't perfect, but it's without a doubt the best pad-ridden studio-in-a-box on the market. Check it out.



### Roland SP-555 | £410

**Review FM195** The latest in Roland's line is packed with features. A durable and flexible partner for the loop experimentalist.



### Roland SP-404SX | £289

**Review FM220** This new update tweaks the original SP-404 but lacks anything really special, so it doesn't climb any places in our chart.



### Korg Electribe ESX-1SD | £516

**Review FM231** This classic has been given a new lease of life with an SD card slot and new sounds.

## High-end Audio Plug-ins



### Celemony Melodyne Editor | £319

**Review FM222** A plug-in that has the potential to change music production forever. A killer tool for every genre.



### Lexicon Native Reverb Bundle | £1,174

**Review FM225** The motherload of all reverbs brings the original digital algorithms straight to your DAW.



### Pro Audio DSP DSM | £200

**Review FM226** An incredible multi-dimensional EQ and dynamics processor that works magic!



### Slate Digital FG-X | from £149

**Review FM233** A revolutionary new mastering plug-in from Slate. Hear it and believe it!



### Brainworx BX Digital | £398

**Review FM200** There's no other plug-in quite like BX's top of the line mastering tool – incredible software.

## Field Recorders



### Tascam HD-P2 | £729

**Review FM186** Built to last and definitely the pro's choice. A multitude of formats and mic settings and superlative sound too.



### Roland R-09HR | £259

**Review FM204** This flagship recorder will produce crystal clear, 24-bit 96kHz recordings, all from the palm of your hand.



### M-Audio MicroTrack II | £229

**Review FM202** Not only does this new version look better, but it's also cheaper. A superb update.



### Yamaha PocketTrak | £260

**Review FM202** This ultra-compact 2GB recorder is a really useful weapon in your recording arsenal.



### Edirol R-44 | £499

**Review FM205** Record four tracks simultaneously via its quality pre-amps. If you need the flexibility it does the lot and more besides.

## Microphones



### Newmann Retro NR47 | £999

**Review FM225** Despite the choice of name, this mic definitely delivers the classic sound. Bargain.



### sE X1 and Project Reflexion Filter Bundle | £169

**Review FM223** Unbelievable value for a robust recording solution.



### Blue Bottle Rocket Stage One | £600

**Review FM222** Interchangeable capsules make this great sounding mic even more of a must-buy.



### Sontronics Saturn | £699

**Review FM227** It looks drop-dead gorgeous and has a flexible airy sound that suits many different recording situations.



### AKG C214 | £450

**Review FM205** As part of the classic AKG family, this mic sets itself up nicely to be a recording bargain that holds its own around the studio.



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## eBay Classic Retro Finds

**Roland HS-60** | £250

**Released 1984** Same guts as the Juno-106 but the ugly built-in speakers mean it's often overlooked.

**Korg EX800** | £100

**Released 1984** This rack-mount version of the Poly800 has a similar sound to the Roland Juno but with the added bonus of a sequencer.

**Yamaha MK-100** | £30

**Released 1983** Bargain analogue style workstation that has limited synthesis options but a great programmable drum computer.

NEW ENTRY

**Oberheim Matrix 1000** | £200

**Released 1987** 1000 presets from the Matrix 6 make this 1U a fantastic analogue sound source.

**Sequential Circuits Multi-Trak** | £250

**Released 1984** Easier to program than a Six Trak with a better sequencer – a gem find.

## Ways To Stand Out

**Apple iPad** | from £429

**Review FM228** The first mainstream tablet offers an unparalleled hands-on user experience that's great for making music.

**Snyderphonics Manta** | £398

**Review FM218** Space-age-style control with incredible good looks and amazing control possibilities.

**Yamaha Tenori-on** | £599

**Review FM193** The amazing lights-in-a-frame synth 'n' sequencer that'll test the way you think about music. Grab one while stocks last.

**Jazz Mutant Lemur** | £1,799

**Review FM166** Techni-coloured touchscreen controller. Why not put a camera on it feeding a projector?

**Percussa Audio Cubes** | 399 Euros

**Review FM207** Expensive, but one of the ultimate ways to stand out when performing electronic music.

## Digital Audio Workstations

Best all-in-one solution

**Logic Studio** | £399

**Review FM218**

The home studio regular and all-in-one studio package goes V9.1 adding 64bit support – if your Mac can handle it.

**Best features include:**

- > Incredible time-stretching with Flex Audio technology.
- > New amp designer and pedal board options for guitarists.
- > The best and biggest range of 'built-in' plugs and synths of our favourite DAWs.

**Good and bad:**

Fantastic Flex Audio raises Logic's appeal even further and despite that stealthy price increase to £399 it remains a bit of a bargain all told.

Best combo of ease and power

**Cubase 5** | £499

**Review FM212**

Cubase 5 sees Steinberg lower the price and raise the plug-in and feature list. VariAudio, Batch Export and new effects plug-ins all come bundled with 5.

**Best features include:**

- > The new VariAudio Melodyne-style pitch editor.
- > Plenty of built-in plugs to get you creating professional tracks from the moment you install the software.

**Good and bad:**

Although Cubase is playing catchup in terms of both bundled content and price, it's can't be argued that it's only getting better. Loyal Cubase users rejoice – Cubase 5 is a winner.

Best for recording audio

**Pro Tools 8** | £319

**Review FM210**

The industry standard DAW gets a fresh modern update with a brand new GUI, enhanced MIDI editing capabilities, and a heap of new instruments and plug-ins.

**Best features include:**

- > For mixing, recording, processing and editing audio there isn't anything easier to use or more stable and reliable.
- > Now that it's MIDI is finally up to scratch, it's a great choice.

**Good and bad:**

Great performance and stability with tempting upgrade offers to a HD system. Well-conceived though limited plug-ins.

Best for jamming and creating

**Ableton Live 8** | £315

**Review FM214**

Bigger and better than ever. If you like chucking loops together and experimenting then this is for you. Flexible and creative, it'll spark ideas you wouldn't otherwise have.

**Best features include:**

- > Instantly beat-match any audio and trigger samples in time. DJs can use this instead of decks.
- > Flexible routing and modulation options let you mess and mangle.

**Good and bad:**

It's a dream for mixing and messing. It's getting a little costly (thanks to that bulging library content) but the cheaper versions remain a bargain and a real studio essential.

Best bangs for your bucks

**Sonar 8** | £349

**Review FM207**

Updated from the much loved Sonar 7, this new version adds even more features and amazingly puts less pressure on your CPU due to a streamlining of it's core. It's a firm favourite with PC-based producers.

**Best features include:**

- > Beatscape – a fantastic slicing and warping groove-based beat and drum machine.
- > The TS-64 Transient Shaper is a simple but brilliant plug-in addition.

**Good and bad:**

A continuous effort to streamline and an incredible amount of features make Sonar 8 a great choice DAW on PC.



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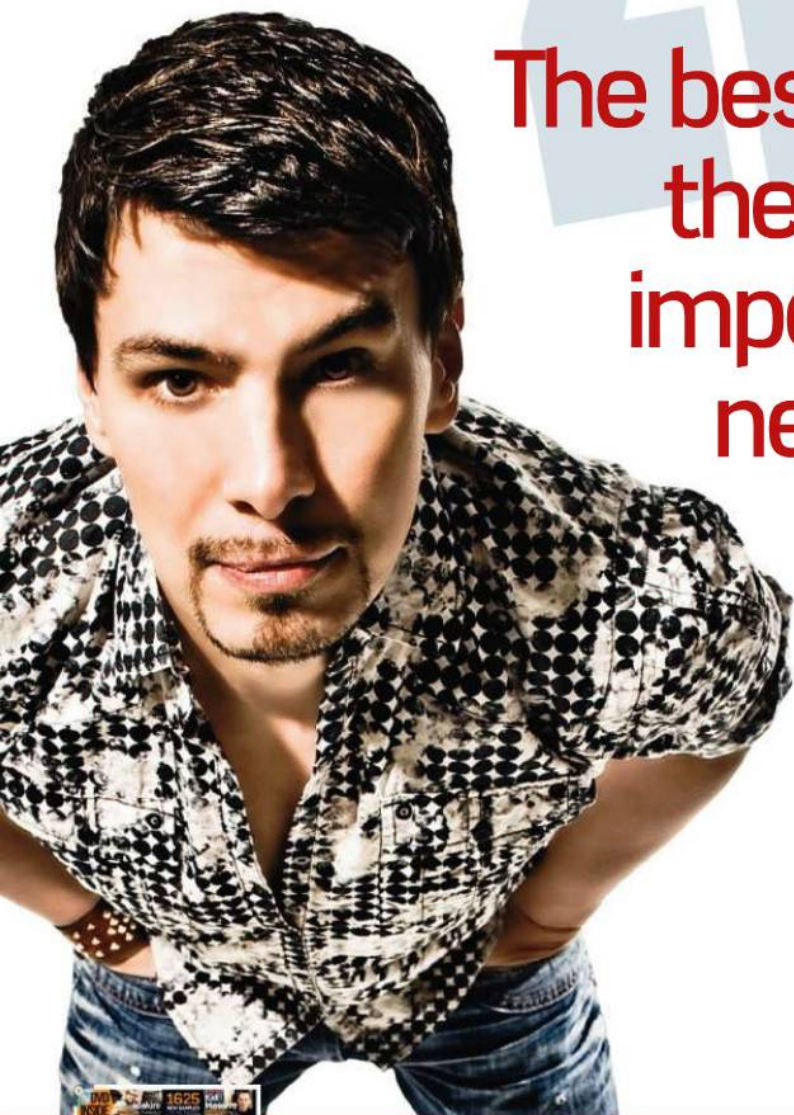
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