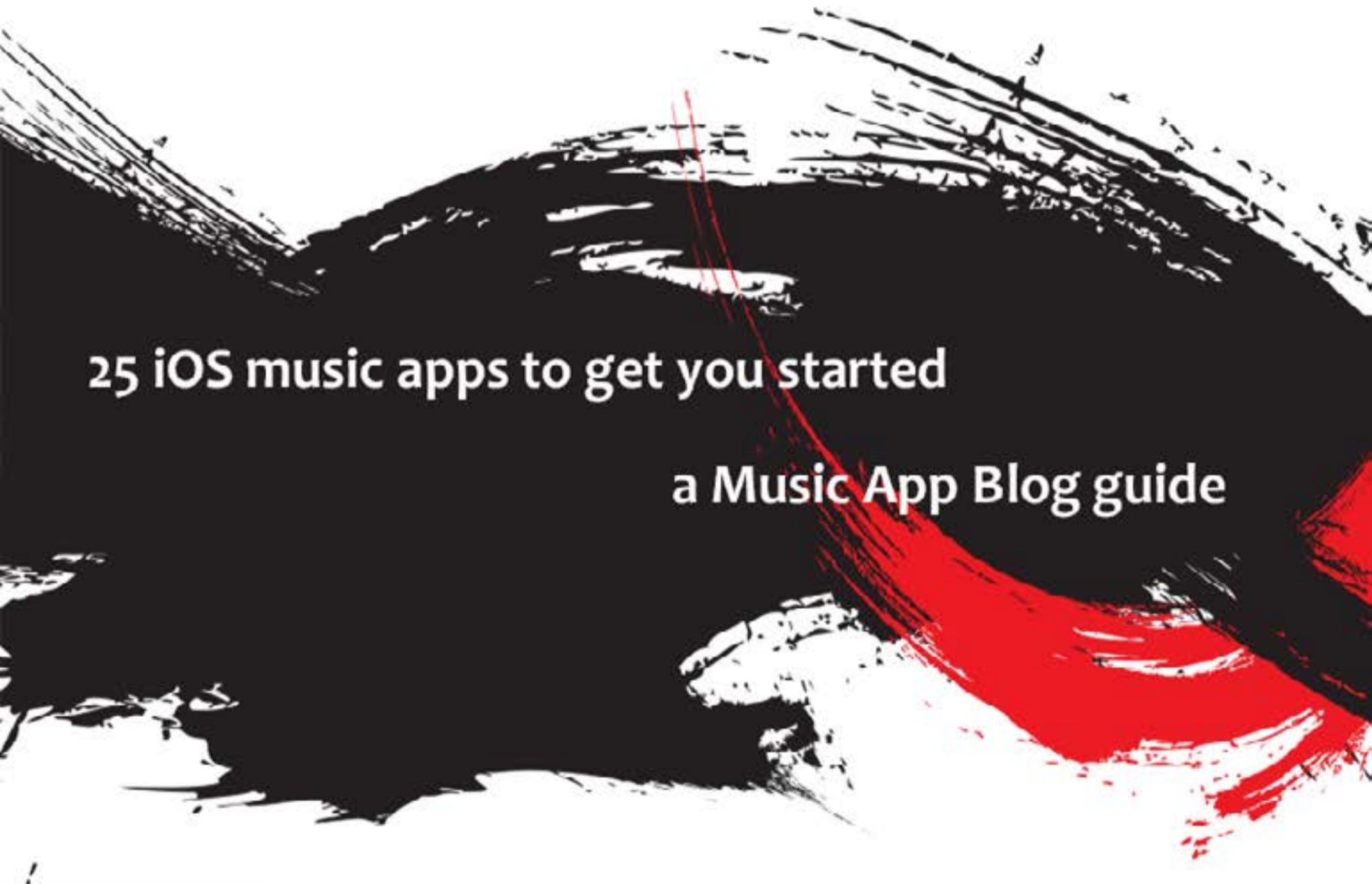




MUSIC APP BLOG

MAKING MUSIC ON THE MOVE



25 iOS music apps to get you started

a Music App Blog guide

www.musicappblog.com

Introduction	2
For everyone	4
1 Garageband for iPad	4
For guitar & bass players	6
2 A guitar amp sim app	6
3 Guitar Toolkit	12
4 Guitarism	13
5 iFretless Bass	14
For keyboard players	15
6 Thor	15
7 Nave	17
8 iM1	18
9 Z3TA+	19
10 SynthMaster Player	20
11 Module	21
For drummers	22
12 A virtual drum machine app	22
14 DrumPerfect by Marinus Molengraft	26
For recording musicians	28
15 AUM	28
16 One of Cubasis or Auria	30
17 One of AUFX:Space or AltiSpace	33
18 Other conventional effects	35
19 Mastering software	40
20 Creative audio effects apps	43
21 VocaLive	49
22 A MIDI performance app	51
For electronic musicians	54
23 All-in-one electronic music production	54
24 Sector	61
And because they are fun	63
25 Quick, creative, collaborative	63
About the Music App Blog	68

Introduction

As in so many facets of everyday life, computer technology has changed the world of music. For consumers of music, it has changed the way we listen to music and the way we purchase it.

For the creators of music – the composers and the musicians - over the last 50 years, each generation will have marveled at the technology change happening around them and how it has improved the tool-set available for making their art. Over the last 20 years, computer technology been at the heart of this change and has fundamentally shifted the way music can be performed, composed and recorded.



For today's musicians, one of the most exciting areas of technological change is mobile computing technology. And while platforms that run mobile Windows or Android OS have potential in this area, for the mobile musician, Apple's iOS is king. It is already delivering on that potential and is only going to improve rapidly over the coming years. For almost any musical activity you can imagine, the iTunes App Store has (as the saying goes) 'got an app for that....'

Mobile computers such as the iPhone or the iPad are not inexpensive items but they are items owned by millions of people worldwide. They are often purchased not with one task in mind but because of their versatility and portability. However, having invested in this hardware, turning it into a powerful music production system – a system with capabilities that would have been beyond the reach or even the imagination of most musicians 10 years ago - is a relatively inexpensive additional step.

The App Store contains a huge collection of inexpensive apps (inexpensive when compared to the cost of similar software for a desktop computer). Almost by accident it is democratising the music creation process. If you own an iPad, for a modest extra investment, you can own a collection of synths, drum machines, guitar amps, pianos, recording software and effects processors (all recreated in software as iOS apps) that would have required the proceeds of a series of No. 1 hits to afford just a small number of years ago. There has never been a better time to take a first step into the wonderful world of music technology....

But, for those new to the world of iOS music making, there still remains a question. The iTunes App Store contains hundreds of music apps.... which ones should you start with?

There is, of course, no single answer to this question but, if you want some suggestions – organised into a number of categories aimed at guitarists or drummers or keyboard players

or recording fans – then here is a list of 25 of the very best music apps (actually, more than just 25 as I've suggested a few alternatives in some categories) that the App Store currently has to offer. These are obviously a personal selection but it's a selection based on experience with a huge number of the current crop of iOS apps aimed at musicians.

I hope you find this list genuinely useful. If so - and you want to say 'thanks' in some way - then feel free to use the 'Download from iTunes' affiliate links contained within the list. These will take you to the iTunes App Store and, if you do make a purchase, a small commission will find its way back to the Music App Blog. Your support will be much appreciated :-)

Equally, if you want to suggest an alternative or two to those apps I've listed here, or you have some suggestions for subjects you would like to see covered in the website, then please feel free to get in touch via email at:

john@musicappblog.com

Incidentally, I produced the original version of this guide in November 2013 and it was updated in both May 2014 and July 2015. However, such is the rapid expansion of iOS music technology that, a year or so later and it was most certainly in need of some serious further updating. This is, therefore, the fourth edition of this guide. However, I don't expect things to stay still so if you think I've missed a contender that is one of your personal favourites then do let me know. I'm always open to new apps to explore as well as feedback, comments and suggestions. Oh, and do bear in mind that app prices change on a regular basis. The prices shown here are correct at the time of going to press... but don't be too surprised if things have gone up or down a little by the time you read this.

John Walden

On behalf of the Music App Blog

www.musicappblog.com

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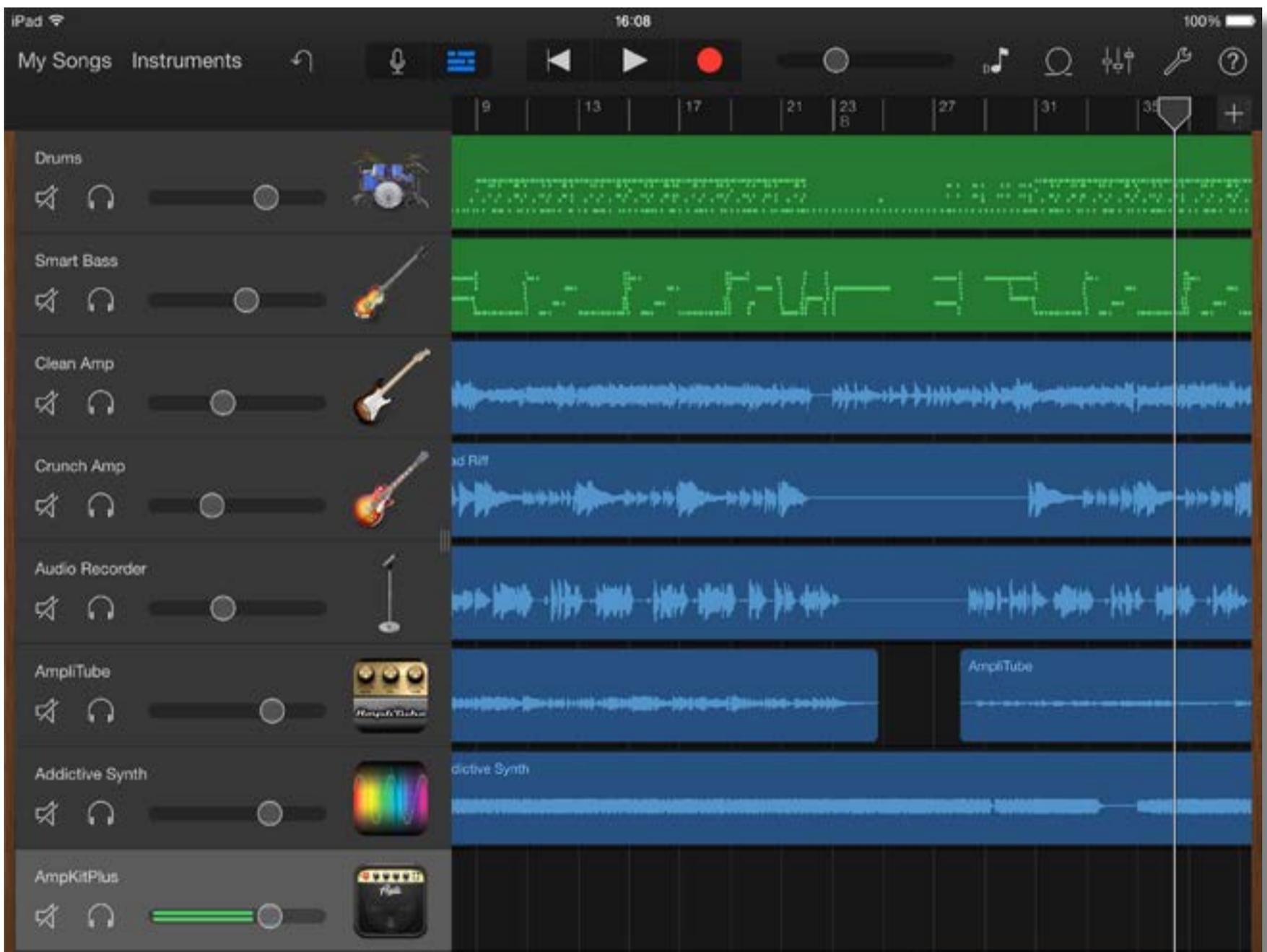
Enough chatter.... on to the apps....



For everyone

1 Garageband for iPad

I know it's an obvious choice but Garageband ought to be on every musician's iPad. Even if you just use it as an audio sketchpad, it would be worth the price of entry. Providing your hardware is up to running iOS9.3 or later, Garageband now offers recording on up to 32 tracks. The app is only £3.99/US\$4.99 and there is a free in-app-purchase that adds a huge set of additional sounds/instruments. It means you get the full range of some very musical virtual instruments, a decent selection of drum sounds, amp modeling, a sampler and basic MIDI editing. This really is a compact recording studio in a single app.



Garageband for iPad - a brilliant demonstration of the potential of iOS as a music-making platform - and still well worth exploring.



Garageband for iPad offers some excellent features including some surprisingly good guitar amp modelling options.

Garageband's Smart Instruments - available through an IAP that is currently free - are brilliant, including the very impressive Smart Strings.



However, Garageband also includes support for inter app audio (IAA) and Audio Units (AU) so you can also use other iOS music apps within it. AU is the coming 'thing' in iOS and will, hopefully quite soon, bring workflows to iOS that are very similar to those found on the desktop. Perhaps the only downside is that Garageband for iOS perhaps lacks a fully-featured mixing environment so there are more sophisticated recording apps out there (see Auria Pro and Cubasis below) but none that are as easy to get started with.

This is the app that really demonstrated the potential of iOS for musicians. It can be labeled as a 'toy' (because it is so easy to use) but it is also a serious tool (because you can do some very serious work with it). A brilliant illustration of what iOS music is all about.



For guitar & bass players

2 A guitar amp sim app

I'm going to cheat slightly here (and make no apologies for doing so) but, for iOS-owning guitar players, you need at least one of the leading guitar amp sim apps, with the obvious contenders being Amplitude, BIAS FX, ToneStack and Mobile POD. Any of these would make a great selection.

Prices do vary but, for example, Mobile POD is currently UK£14.99/US\$19.99 (to unlock it's full feature set unless you have suitable Line 6 hardware), although all appear at a discounted sale price on occasions) and, aside from what's included for the initial price, all have additional collections of amps, cabs, effects and other add-ons available as in app purchases (IAPs). They all sound very good indeed.



Amplitude offers a range of amps, cabs and effects with additional options available as IAPs.



Yonac's ToneStack packs a considerable bang-for-buck in terms of the guitar tones available.



Line 6 have bought all their amp modelling expertise to iOS with the Mobile POD app.

Two other obvious apps in this broad category are Positive Grid's BIAS Amps (UK£3.99/US\$4.99 at the time of writing) and BIAS FX (currently UK£7.99/US\$9.99). These make a phenomenal pair. BIAS Amps is really a virtual 'amp designer' rather than a complete virtual guitar rig. It is, however, absolutely brilliant, both in concept and in execution. It allows you to custom design your own guitar amp based upon a range of preset models that are included within the app (including bass, acoustic, keyboard and vocal amps so it is not just for 6/7 stringers). You can tweak all sorts of details about the amp (for example, choosing which sort of virtual tubes to use), select from a range of cabinet types and specify the microphone type and position. However, what you don't get is any virtual stomp boxes.



The latter is not such a big deal though; while BIAS can be used independently (and supports Audiobus and IAA for use in a wider music production workflow) amp designs you create within BIAS can be imported into Positive Grid's BIAS FX and embedded within the signal chain - effects included - that that app provides.



Bias allows you to custom build your own amp models and, if required, export them for use in JamUp. If you are a guitar tone geek, BIAS is brilliant.



Bias FX allows you to build your own complete guitar rigs, including amps you have designed with BIAS Amps.... and it sounds fabulous.

BIAS is probably the best quality amp modelling that is currently available on iOS and, teamed with BIAS FX, makes for a formidable combination.

Whichever one of these guitar amp sim apps you go for, you will need a suitable audio interface to connect your guitar to your iPhone or iPad. Line 6, for example, make the Sonic Port, while IK Multimedia offer various versions of their iRig hardware with the various 'HD' models using the Lightning port connectivity to your iOS hardware for better audio quality. If you need further details on any of these audio interfaces, they have all been reviewed on the Music App Blog so please feel free to check the details there.



Line 6 make a range of iOS-friendly audio interfaces suitable for guitar players including the original Sonic Port (shown here) and the Sonic Port VX.



IK Multimedia's iRig range - such as the iRig HD shown here - provide a very popular choice for guitar players.

Ampltube by IK Multimedia



Mobile POD by Line 6



ToneStack by Yonac



BIAS Amp by Positive Grid



BIAS FX by Positive Grid

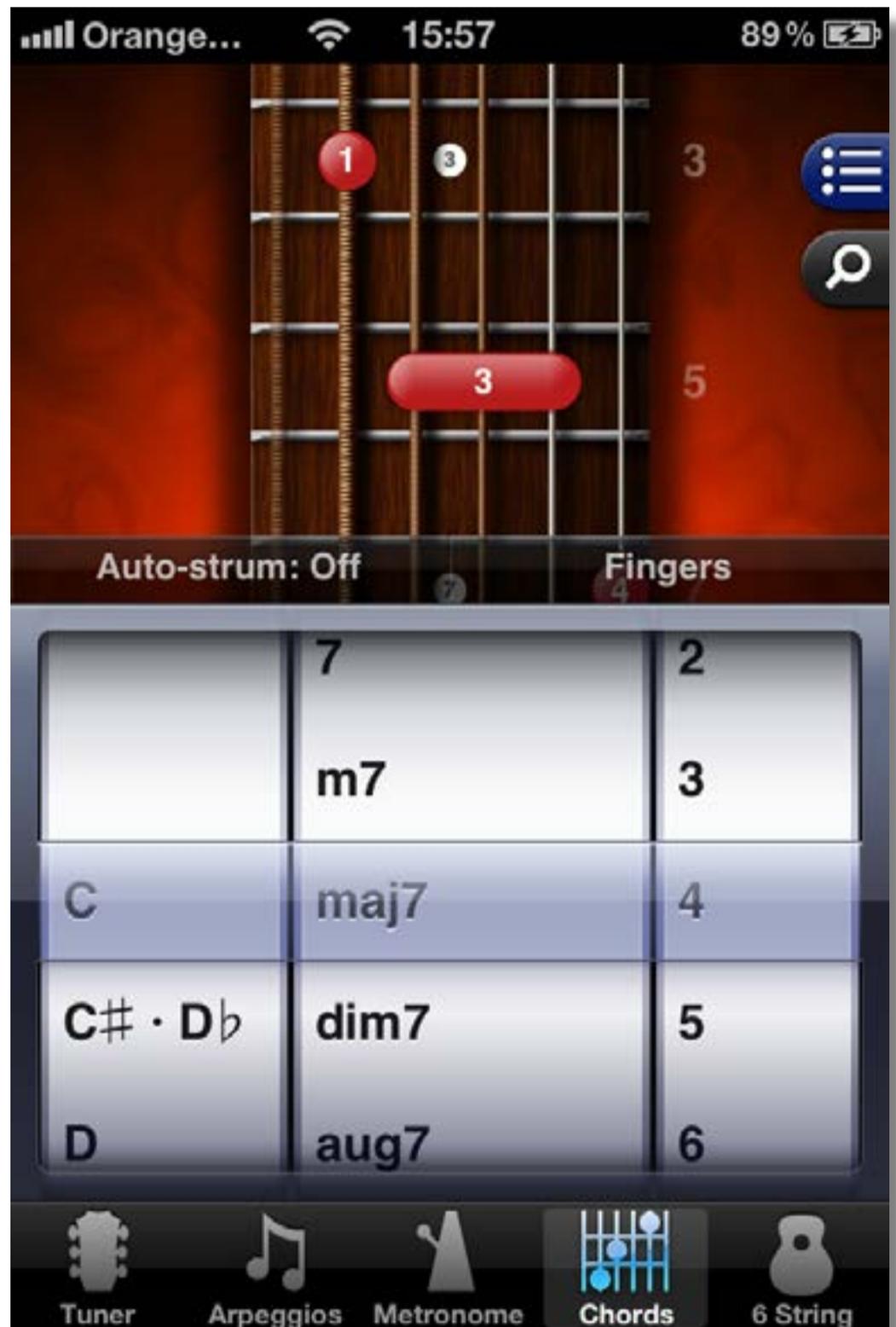


3 Guitar Toolkit

There are lots of guitar tuner apps that you could buy for your iDevice but, for just a little more than the price of a decent tuner, you could get Agile Partner's Guitar Toolkit (currently UK£2.29/US\$2.99) instead. It includes a very good tuner but you also get a huge chord, scale and arpeggio database as well as a chord finder.

Guitar Toolkit doesn't just support 6 string guitars in standard tuning – 7 and 12 string instruments are supported along with 4, 5 and 6 string basses, banjo, mandolin and ukulele, all with standard and alternate tunings. It's brilliant and, on your iPhone, you always have your tuner and musical reference in your pocket.

Guitar Toolkit is a bit of a Swiss Army knife for guitar, bass, ukulele, banjo and mandolin players. A great resource for your iPhone, iPod or iPad.



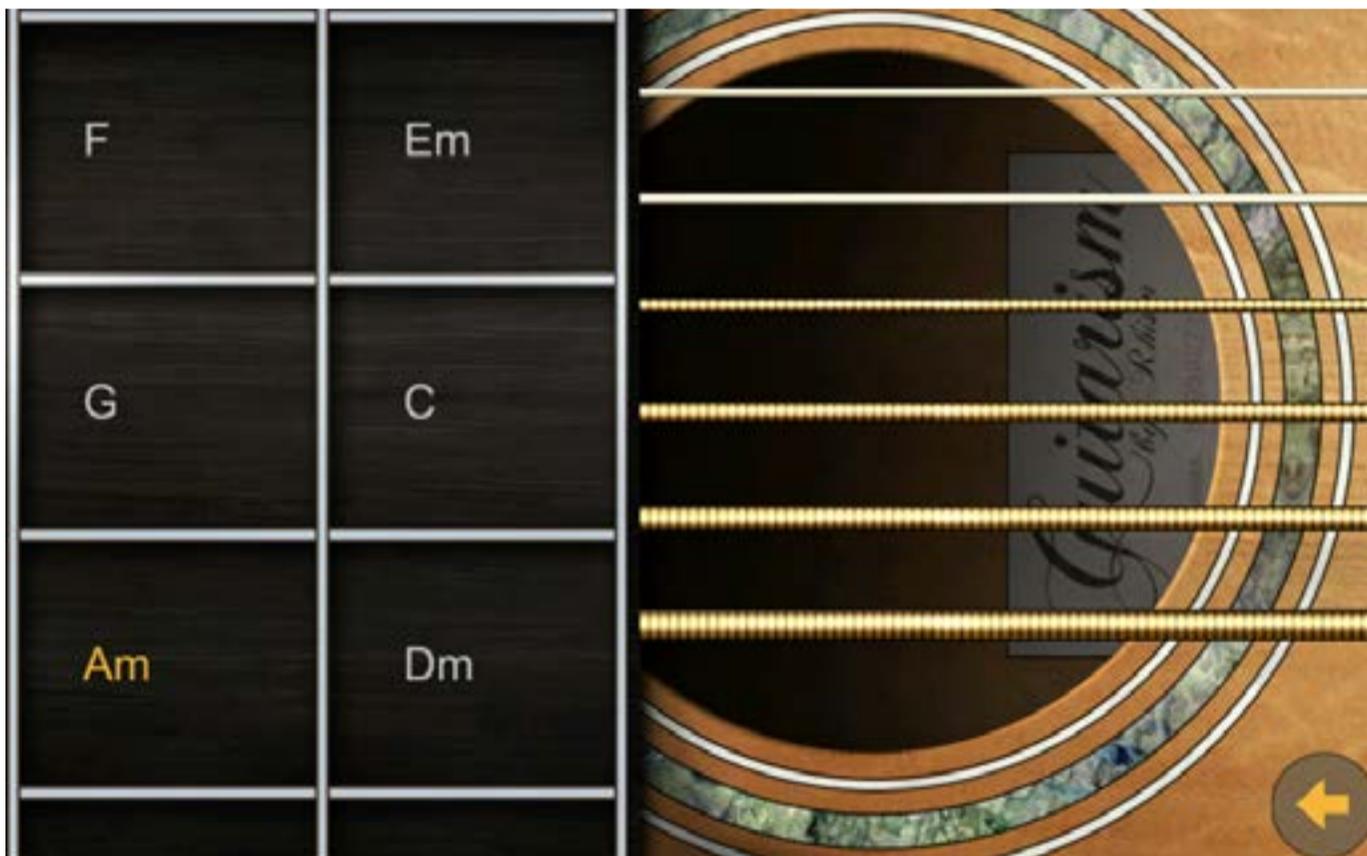
4 Guitarism

The iTunes App Store is full of lots of 'playable' virtual instruments but, as a guitar player, if I had to pick just one, it would be Guitarism. The basic app is currently UK£3.99/US\$4.99 but also offers a number of in-app-purchases that expand on the features and the range of available sounds (including some electric guitars). These are well worth exploring so budget for some of these from the start; it is still excellent value for money.



The attractiveness of this app is not that it is stuffed full of features or that it is based upon the most sophisticated of multi-layered samples (although the sound itself is actually very good). What makes the app useful is that, with a modicum of practice, it is actually quite playable. Sure, if you try to play high-tempo strumming, that can take a lot of work to get right and any mistakes you make can easily reveal the 'not a real guitar' nature of what Guitarism generates. But, for medium and low tempo strumming, you can create some remarkably convincing performances. And, in the rather neat additional tilt and mute features, you have plenty of performance options, all of which are relatively easy to learn.

The only downside is that it has been sometime since the app was updated.... but, as a strumable virtual guitar, it still does a great job. Nope, I'm not going to sell my Taylor acoustic and replace it with Guitarism but, when I'm out and about without my guitar and need something to knock a few chords out on, Guitarism is well worth pulling my iPhone out of my pocket for.



With some very neat performances options included, Guitarism manages to be both easy to play while still sounding good.

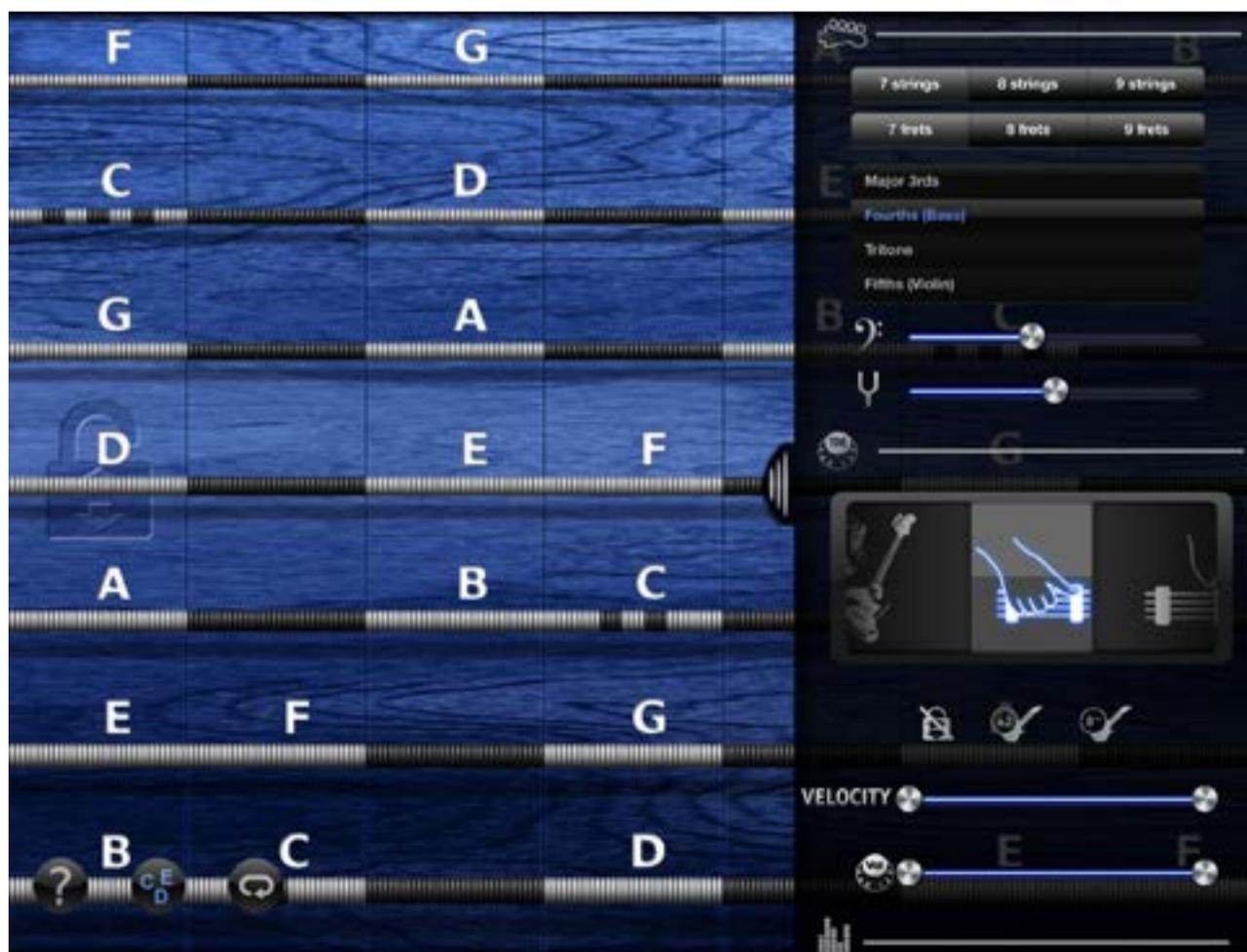


5 iFretless Bass

For bass players, iFretless Bass is not quite the same sort of beast as Guitarism. The latter is great for some very wholesome strumming but iFretless Bass is a more heavyweight app altogether. Indeed, when it comes to bass guitar sounds, the detailing in the sampling used in iFretless Bass means it is probably the most sophisticated virtual bass instrument currently available for iOS. The sounds cover fretless and fretted bass styles as well as an acoustic bass and a few synth sounds. Make sure to listen on decent headphones or speakers though just to get the full benefit of the rather wonderful bottom end; the sound is very solid.



At UK£10.99/US\$14.99, iFretless Bass is a good deal just on the basis of the quality of the samples. However, you also get the rather brilliant user interface. With virtual strings and frets that will make bass and guitar players feel quickly at home, the app includes some fabulous performance options such as velocity sensitivity, hammer-ons, slides and vibrato. And as the app also supports MIDI in and out, you can use the interface to control other iOS music apps if you wish. For guitar shaped fingers, this is much better than using a virtual piano keyboard. iFretless also includes Audiobus support and inter-app audio (IAA) so it is also great as a source of bass sounds in a recording context. Here's hoping that Audio Units (AU) support is soon forthcoming as that would be great to see.



iFretless provides a brilliant performance interface that guitar and bass players will find much more familiar than a virtual piano keyboard.



For keyboard players

6 Thor

Keyboard players – and synth-heads in particular – are well served by the iTunes App Store. There is a huge number of different synth apps available to suit all levels (beginner through to experienced synth programmer) and price points. However, if you want to start at the top of the pile, then Propellerhead's Thor is as good a place to pick as any. Priced at UK£10.99/US\$14.99, Thor is a monster of a synth for a ridiculously low price.



In short, Thor is a professional-level virtual synth that could happily grace any live performance (for those brave enough to take their iPad into a gig environment) or serious recording contexts (it has Audiobus support but I'd happily use it in any recording context, not just an iOS-based one). It comes with a heap of excellent presets (themselves derived from the desktop version of Thor that is part of Propellerhead's highly-regarded Reason music production system) and sounds awesome.



If you like to program, Thor provides you with some fantastic options.

While you can just explore the presets and make the occasional tweak to suit your needs, if you like to get stuck in to programming your own synth sounds, Thor has plenty to keep you occupied. It provides a sophisticated sound-shaping environment as is capable of a staggering array of sounds. The interface is well thought out and translates well to the iPad. If you have any interest in synth-based music styles then this app really should be in your iOS app collection.



7 Nave

Waldorf are a bit of a legend in the world of hardware synthesis and, in Nave (UK£14.99/US\$19.99), they have translated that expertise onto the iOS platform. As with Thor, Nave is both slick, sophisticated, deep (in terms of the programming options) and sounds fabulous.

However, in building sounds upon wavetable synthesis, Nave is most certainly distinct from Thor; it has a different character and provides very different sonic possibilities. The wavetable options are beautifully presented and the interface allows the user to interact with these features in an interesting and intuitive fashion.

With Audiobus support and also IAA support, Nave is also right at home as part of a wider iOS music workflow and, whether you want a sound source for live use or a mega-synth for recording duties, Nave is up to the task. And if programming is not your thing then the app also includes a huge library of wonderful presets. Alongside Thor, Nave is a 'must-have' for any serious iOS-owning synth lover.



Nave's interface is beautifully presented and the Wavetable editing options provide an intriguing programming environment.



8 iM1

In the world of hardware synths, Korg's M1 is considered something of a classic. If you have listened to almost any dance or electronic music since the late 1980s, then the odds are you will be very familiar with its sound. In recreating the M1 as an iPad app in the form of the iM1, Korg have captured the sound, tweaked the feature set to bring it right up to date and, as a result, created something that is, frankly, a bit of a synth monster.



In essence, you get the full editing capability of the original synth spread across a number of different screens but there is also an 'easy' screen for those that just want to tweak rather than dig deep. Two inexpensive IAPs add further sounds (based upon the expansion cards for the original hardware synth) and, if you buy both of these, then you end up with a massive collection of over 3000 preset sounds to explore. The app also features Audiobus and IAA support so it is ready to go within your favourite recording workflow.

iM1 is a fabulous virtual instrument and, while the full programming experience does take a little learning, the easy mode provides a suitable route in for newbie synth programmers. There are some sounds that the iM1 doesn't do - mostly 'real' instruments - but Korg have an app for that and I'll come to that in a minute :-). Otherwise, iM1, while not 'cheap' in iOS terms (UK£22.99/US\$29.99) is still a bit of a steal. Oh, and it can also operate as an eight-part multi-timbral sound source fed from eight different MIDI channels.... one app, many (simultaneous) sounds :-)



iM1 brings the classic sound of Korg's M1 hardware synth to iOS. It sounds great and, in 'easy' mode at least, is not too intimidating to program.



9 Z3TA+

As a desktop synth, Cakewalk's Z3TA+ has gained a loyal following and its powerful sound and flexible programming options – as well as a fairly modest price even in the desktop form (UK£79 for the full version) – means that you have probably heard it on countless numbers of commercial recordings. Just as Propellerhead have done with Thor, Cakewalk have ported the desktop version of the Z3TA over to iOS and, it has to be said, it has survived the experience – both sonically and in terms of features – pretty much intact.



What's really impressive, however, is the range of sounds that the Z3TA+ seems able to generate. Whether you want basses ('classic' or cutting edge), leads (mellow or aggressive), pads (subtle or not), percussive (synthetic kicks, snares, hats, etc.) or sound effects, the Z3TA+ has something (and usually several somethings) that will fit the bill. With Audiobus and IAA support, this is also an app that will work well in a wider music workflow and, with a well implemented MIDI Learn feature, it's easy to use with any controllers on your hardware MIDI keyboard.

The only downside is that the app hasn't been updated in around 18 months.... but it still works fine so I guess it's a case of 'if it's not broke, then don't fix it....' Top notch stuff.... and, at just UK£14.99/US\$19.99, this is a heck of a lot of synth for a very modest price.

Z3TA+ is great for modern dance styles and offers some excellent programming options.



10 SynthMaster Player

Not everyone who plays a synth aspires to be a synth programmer. Many musicians just want their synths to be a source of top-notch presets that, if required, they can tweak a couple of key parameters on and, otherwise, just get on with the job of creating music. If that's you, then KV331's SynthMaster Player app might be just the thing.



This is also a port from a desktop version but, unlike on the desktop, the iPad version is a free download and includes 100 preset sounds and you get 100 more when you register the app (done via the Menu button). However, there is a 'PRO Upgrade' (UK£4.99/US\$7.99) that expands the available presets to a fairly impressive 800 and, if you do tweak a preset or three, the option to save that tweaked version. Further IAP sound sets are also available.

The interface had a major overhaul when the app moved to v.2 and is now rather slick but what really impresses is the sounds themselves; if you are into electronic and dance music styles, then, with the expanded presets available, this is a fabulous collection of synth sounds. And you do get a small selection of parameters to tweak on those presets so you can customise the sounds to suit your needs.

The app plays well with other iOS music making tools and, if KV331 ever think about adding multi-timbral support, it would make a great app even better.



SynthMaster Player's interface is easy to use but the star of the show is the sound... buy the PRO Upgrade IAP and enjoy!



11 Module

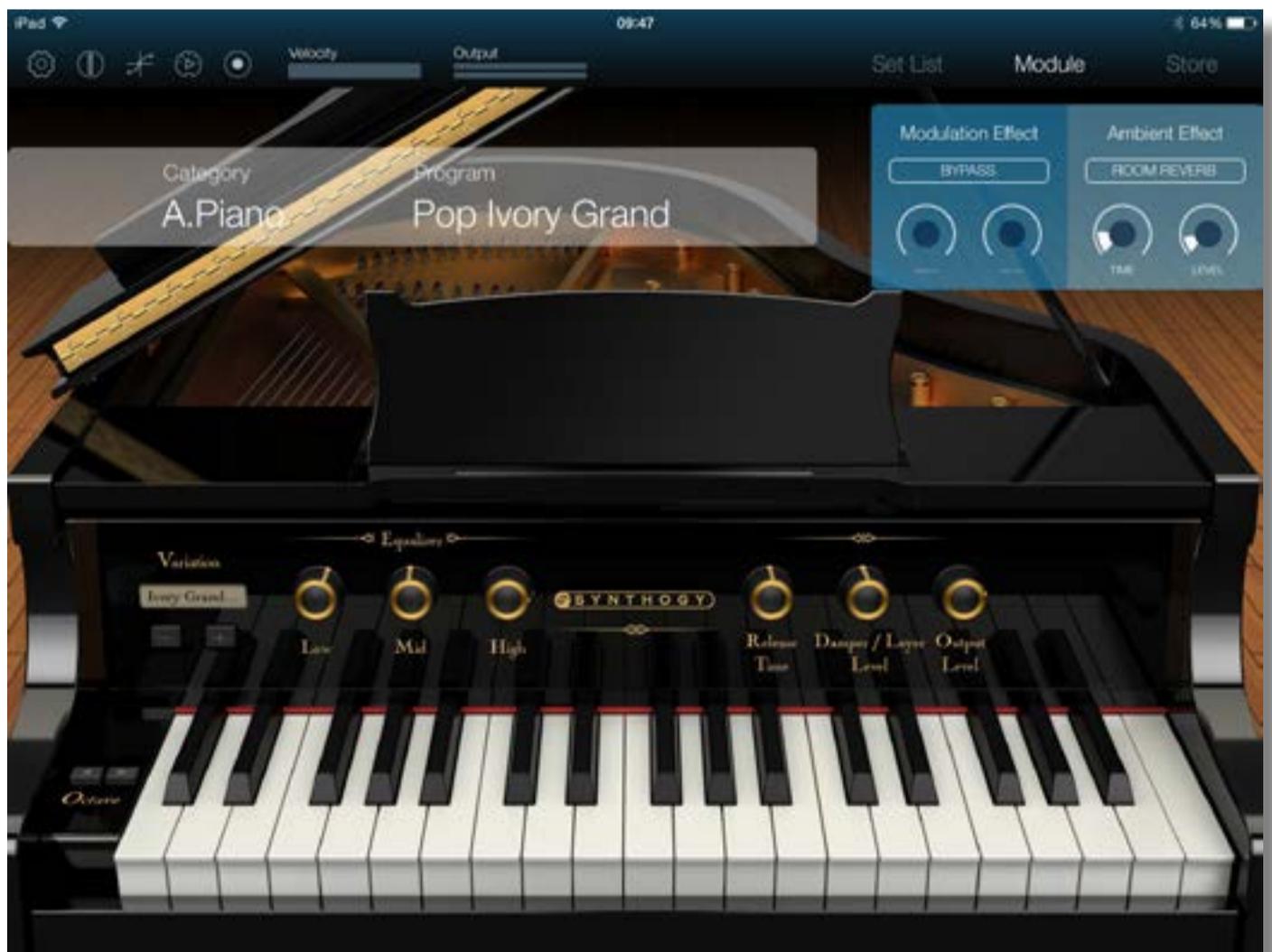
Of course, synth sounds are not all you might need for your iOS music making; 'real' instrument sounds can also be required, even if those are supplied from a 'virtual' source. There are a few iOS apps that can do a decent turn when it comes to sample-based sounds but, while it is mainly focused on acoustic and electric piano sounds, Korg's Module is currently the cream of the crop in this regard.



With a very impressive set of sounds supplied with the base app, and a number of further IAPs available to expand upon these, hooked up to a decent MIDI keyboard, you can coax some very realistic performances from Module. This would make a great sound source for both live and studio use.

What's more, Module also appears as a 'gadget' within Korg's Gadget app (see later in the guide) so you can use it in a multi-timbral format. However, Audiobus and IAA support mean it can also work with other iOS music apps. Given the impressive sampling used to create the sounds, it does require a good chunk of storage space (well over 1GB for the base app) and the base app - at UK£29.99/US\$39.99 - is not the cheapest iOS music app you might buy, but, if you want the best piano sounds available under iOS, then it is most definitely worth it.

Korg Module; the best sample-based sounds available under iOS? Let's hope a Module 'Orchestra' IAP might appear at some stage.



For drummers

12 A virtual drum machine app

When it comes to drums, there are all sorts of different approaches you can take - drum machines, virtual incarnations of 'real' drum kits (an iOS sized version of something like desktop applications Superior Drummer 2 or BFD3, for example) and rhythm/groove boxes. In the 'virtual drum machine' category there are a few very good contenders.

Fingerlab's DM1 (UK£3.99/US\$4.99) is an excellent choice. It includes over 100 different sample-based drum kits and, while the majority of these are electronic in nature, there are also some very usable acoustic kits and some percussion sets. You can, of course, also assemble your own kits, either from the included samples or by recording your own.

The user interface is very slick with a step sequencer to create your patterns within, drum pads for live playing, a mixer to balance the different elements of your kit and a range of effects that can be applied. The effects options are excellent with two X-Y pads that can be used to provide real-time tweaking of the sounds.

You can sequence your patterns within a DM1 project using the



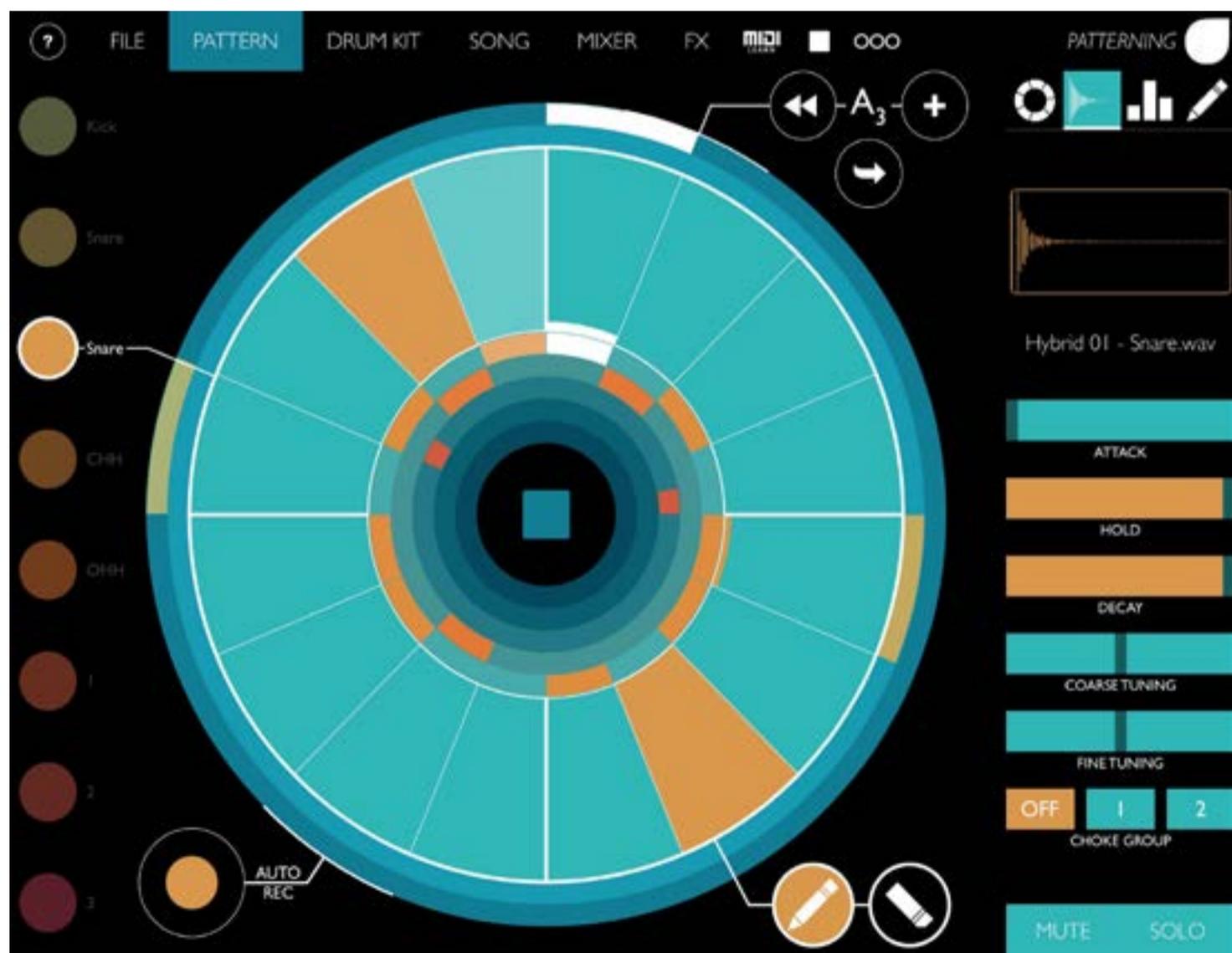
DM1's step sequencer is beautifully implemented and a pleasure to use.



'song' options and, if you wish, export either an stereo mix or individual drum tracks as audio to use in other iOS music apps. However, as the app also supports MIDI in/out (including MIDI Clock sync), Audiobus and IAA, it is fairly easy to use the app as part of a wider music production workflow. Like any good iOS drum app, DM1 now also has support for Ableton's LINK technology, making it easy to synchronise playback of multiple LINK-enabled apps. Easy to use, instantly creative and an absolute bargain to boot.

For a slightly different take on the virtual drum machine, Olympia Noise Co's Patterning takes some considerable beating. Priced at UK£7.99/US\$9.99, Patterning doesn't look like a conventional drum machine but don't let this put you off; this is simply brilliant and fully deserves the various awards and plaudits it has received. If it existed as a desktop plugin, I'd be recommending that too.

The interface is novel, slick and offers a brilliant combination depth verses ease of use. Yes, there is a bit of a learning curve but Patterning repays the effort in spades. There are some great sounds (and you can also load your own samples) and some amazing options in terms of pattern creation including options for having different step lengths for each sound within a single pattern.... just think what that might do in terms of adding variety as you pattern loops.... Simply awesome and, if you have any interest in electronic music styles, this is about as no-brainer as a music app gets! Audiobus, IAA, MIDI and Ableton LINK are all included.



Patterning doesn't look like a conventional drum machine but it offers a fabulously creative way to create drum grooves.

Not everyone is content with sample-based drum sounds and, if you are heavily into electronic music styles, a full-on drum synthesis tool might be your preferred squeeze. Fortunately, iOS will have to you covered and there are actually a few contenders in this field. However, if you want a good place to start, then either Elastic Drums or DM2 would be my personal choices. Both manage to combine a neat workflow, great sounds and a pretty modest pricing. At the time of writing, Elastic Drums is UK£5.99/US\$7.99 and DM2 is UK£3.99/US\$4.99.

In Elastic Drums, you get 6 channels of synthesised drum sounds created via a number of different synth engines for each sound category. There are plenty of sound tweaking options so, as well as a good range of preset sounds, you can also create your own. A step sequencer allows you to create patterns and the grid editor makes this process pretty straightforward. There are a range of effects for extra sonic possibilities and Elastic Drums can sound huge. Audiobus, IAA, MIDI and Ableton LINK are supported. A sampler function has also been added in a recent update as an IAP and expands the possibilities even further.

DM2 might look familiar to users of DM1 and, indeed, it shares a broad workflow and feature set as well as members of the development team (DM2 is produced by an ex-Finger Lab team member) but, unlike DM1, DM2 uses a synth engine for sounds rather than samples. The feature set is impressive and the interface very slick while Audiobus, IAA, MIDI



If you prefer your drums to be synth-based rather than sample based, then Elastic Drums is an excellent choice.

and Ableton LINK are all present and, like Elastic Drums, it sounds great.

The key difference between the two apps is perhaps in terms of how deep the user can delve into the synth engine. DM2 is a bit more accessible for the novice user in this regard and the user interface perhaps a bit more immediate. In contrast, but Elastic Drums maybe offers the deeper programming options once you dig in; set your experience level and take your choice though because both are great.



DM2 has a similar workflow to DM1 but the sounds are produced by a synth engine rather than from samples.... and it also sounds great.

14 DrumPerfect by Marinus Molengraft



On the desktop, we are well served by some excellent 'virtual drummer' software such as BFD3, Superior Drummer 2 and Addictive Drums. As yet, iOS doesn't really have something that meets these giddy heights but the app that gets the closest is DrumPerfect Pro (UK£13.99/US\$19.99) by Marinus Molengraft.

The most important thing to note is that if you want an app that is going to give you the most realistic, programmable, acoustic drum performance you can possibly get on your iPad, then I think that currently, DrumPerfect Pro is it. It sounds great and, with some decent drum samples that make full use of the kit construction features, it sounds very convincing. Equally, some elements of the pattern creation process are brilliantly conceived – the left/right hand options, the humanize setting, the probability feature – they all allow you to create a performance that feels 'real'. The app is bundled with some cool patterns to get you started and offers style-based IAPs to expand on these.



For the best virtual drummer under iOS, DrumPerfect is the way to go.

DrumPerfect Pro includes support for MIDI Clock sync, Audiobus, IAA and Ableton LINK. I'd love to see even more style packs added but, for human sounding acoustic drum parts, DrumPerfect Pro it is very good indeed.

DM1 by Fingerlab



Patterning by Olympia Noise Co



Elastic Drums by Oliver Greschke



DM2 by Pascal Douillard



DrumPerfect Pro by Marinus Molengraft



For recording musicians

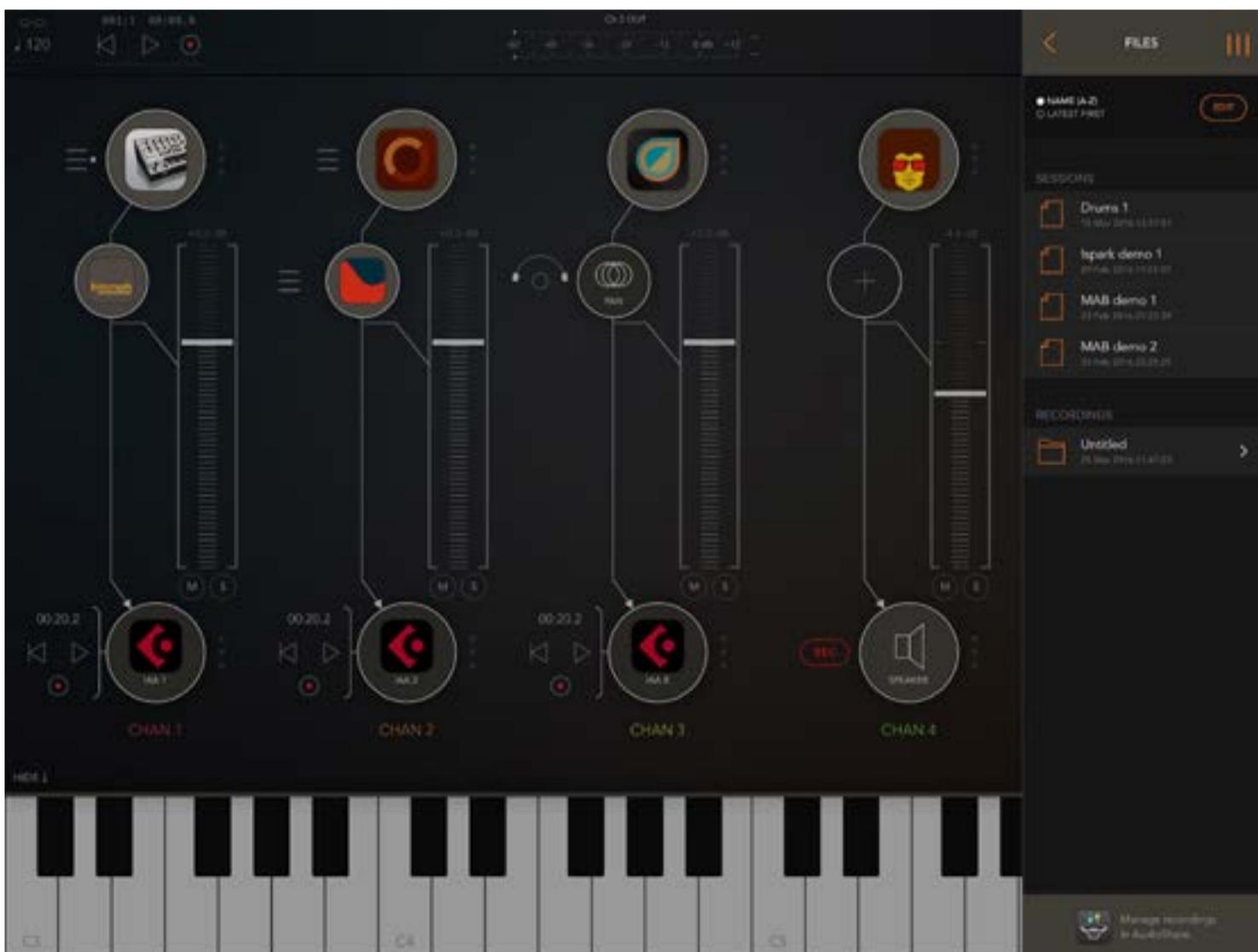
15 AUM

I think it's fair to describe Audiobus – originally released in September 2012 – as a complete game changer for iOS musicians as it overcame a limitation with earlier incarnations of iOS in allowing multiple audio apps to pass audio data between them. Almost any audio app worthy of the name eventually offered Audiobus support and, over its very short life, it revolutionised the workflow for iOS musicians.



However, more recently, AUM (by developer Kymatica/Jonatan Liljedahl) has provided an alternative for between-app audio connectivity and, in many ways, AUM's feature set offers something more than Audiobus. Until the Audio Unit plugin format really takes hold, AUM (and still Audiobus itself) is, therefore, a utility app that almost any iOS musician will find useful.

So what is AUM? Well, while it doesn't look like a conventional audio mixer, that is perhaps



AUM - inter-app audio connectivity via a sophisticated virtual mixer environment for iOS.

the best way to think of the app; it provides a mixing environment where you can create channels for your sound source apps (synths, drum machines, etc.), apply effects apps to those channels, create 'send' style effects and sub-mix buses, and generally route audio from one place to another while also setting the levels of each channel involved. And, providing the apps you want to insert into this virtual mixer support Audiobus, IAA or AU, then they will work very happily with AUM.

With all this flexibility and powerful options, the app does take a little bit of learning but this will be time well spent if you like to work with multiple iOS music apps at the same time. Compared to Audiobus (which still does an excellent job of audio connectivity between apps), AUM offers the additional features of level faders for each channel, more sophisticated audio routing and AU support. Ableton LINK support is also included within the app.

Given just what is on offer, the UK£13.99/US\$19.99 price tag is an absolute bargain. While you might argue that more widespread AU support for iOS music apps might make apps like AUM or Audiobus less necessary, for AUM, given that it can easily act as a virtual mixer for AU apps, I'm not so sure that's really the case.... It will be interesting to see just how the expansion of AU changes iOS music production workflows (and iOS10 might have a significant part to play here) but, until then, AUM is a very useful dollop of 'app glue' and well worth adding to any serious iOS music app collection.

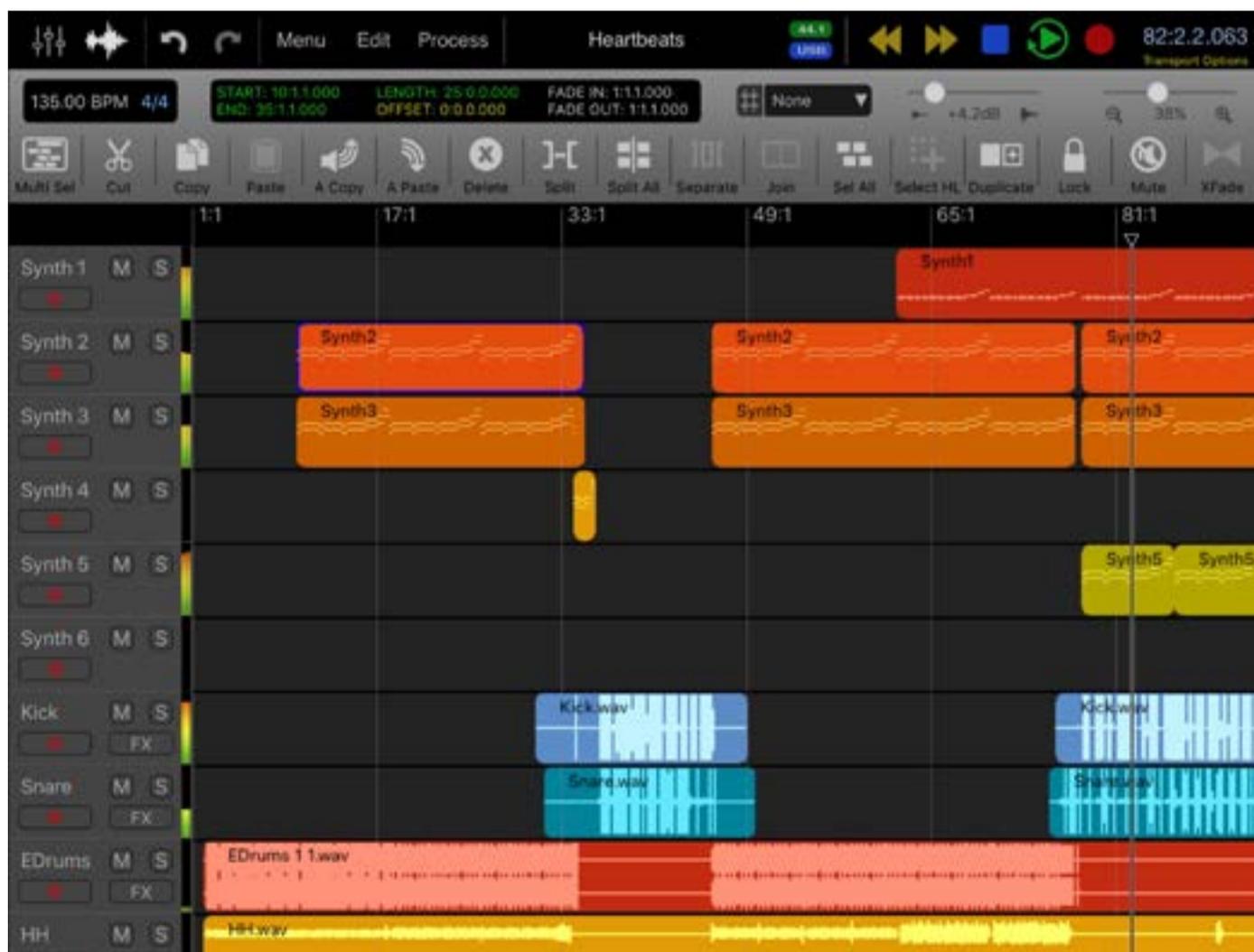


16 One of Cubasis or Auria Pro

If you want to record under iOS then you need an app to do it with. There are a number of very good contenders, each with different specs and prices. However, two apps stand at the top of the pile in terms of profile; Auria Pro and Cubasis. Both are normally priced at UK£39.99/US\$49.99.

Compared with a top-of-the-range desktop computer recording application, neither of these apps are 'perfect' or perhaps as fully featured (although Auria Pro gets pretty close) but, in the context of iOS (and compared to the kinds of technology previous generations of musicians started their recording experiences with), both are brilliant tools and more than capable of making excellent recordings providing you have the additional kit (microphones, audio interfaces, etc.) and skills (knowing how to use that additional kit as well as the app) to exploit their potential.

Both offer a full audio+MIDI recording environment. At the present time, perhaps choosing between the two is most easily done on a couple of their obvious differences. In terms of the feature list, Auria Pro is undoubtedly the more sophisticated and, given just what is offered, it is as close as iOS gets to a desktop DAW/sequencer in terms of options. Perhaps the downside of this is that to get the best from these powerful features, you perhaps also need a powerful iPad to run the app on.



Auria Pro offers a powerful recording environment.... this is serious stuff.

In contrast, Cubasis offers perhaps a somewhat more streamlined feature set - although it is still very well featured and more than capable - and this, alongside what is a very slick user interface (drawn from Steinberg's top-of-the-range desktop music production software Cubase), means the app is perhaps more obviously tailored for the iOS environment. Cubasis is also very intuitive to use.

Both apps include support for Audiobus, IAA, other good MIDI support (including mix automation), ship with various virtual instruments and offer IAPs so you can expand the features in whatever direction suits your needs. And, importantly, both now also support for the new AU plugin format. This will, over the course of the next year or so, probably replace the need for Audiobus or IAA for many iOS musicians. The bottom line, however, is that both of these apps are brilliant; there is no bad choice.

Incidentally, if you are new to multi-track recording and iOS is going to be where you start, the Music App Blog has a 'getting started' series; 10 posts that walk you through the key steps in setting up an iPad-based recording studio. Just visit the website to find out more....



Cubasis combines audio and MIDI recording in a very slick user interface. As a Cubase user on the desktop, Cubasis is my own weapon of choice under iOS.

Auria Pro by WaveMachine Labs



Cubasis by Steinberg

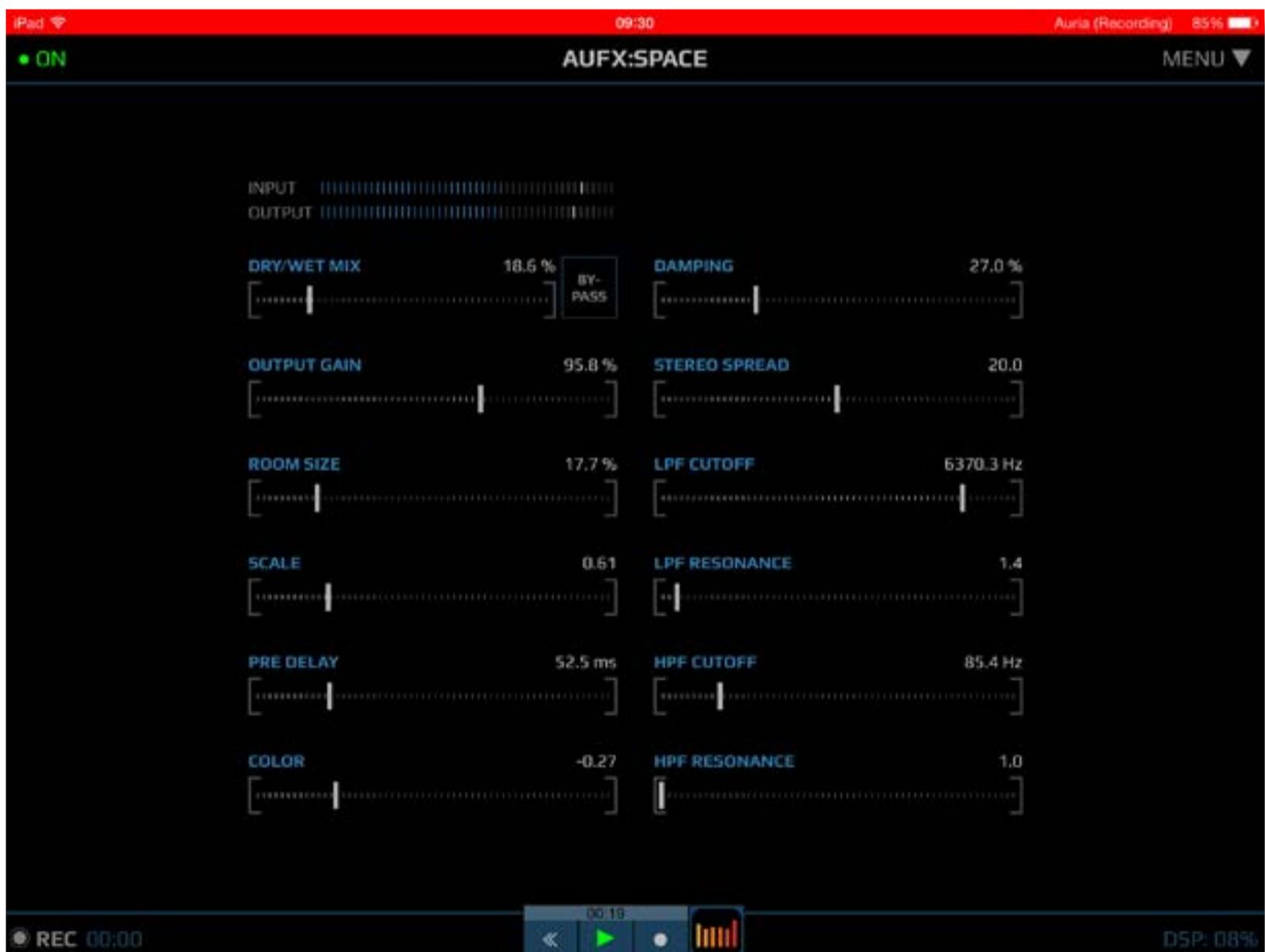


17 One of AUFX:Space or AltiSpace

Reverb is one of the most important generic effects used in modern recording. Auria Pro has some good reverb options built in and others available as IAPs. Cubasis also has a decent reverb. However, just as in the world of desktop music production, with iOS, you can buy dedicated reverb apps from other developers.

While there are a number of excellent choices available here, for me, two currently stand out in the iTunes App Store for different reasons; AUFX:Space by Kymatica (UK£3.99/US\$4.99) and AltiSpace by Igor Vasiliev (UK£4.99/US\$5.99). Both are easy to use and, considering their price, provide excellent results.

If you like to keep things really simple, the interface used in AUFX:Space is very straightforward and, while the app includes a number of very useful presets, it really takes just a few seconds to tweak the various controls to conjure up the kind of reverb effect you need. The app is IAA compatible and also supports Audiobus so it can be used within a recording workflow without any difficulty.



AUFX:Space is easy to use and has good support for Audiobus and IAA.



Altispace is perhaps the most realistic sounding stand-alone reverb app currently available for iOS.

In contrast, Altispace, while simple on the outside, is rather brilliant on the inside. This app approaches reverb from a different direction being based on a 'convolution' engine. This is something that is generally much more processor hungry (it is common place on the desktop but Altispace ws the first dedicated iOS reverb app to use the approach). Convolution can produce extremely realistic results and, if you can deal with the (slightly) higher CPU load it might place on your iPad, this is most certainly an app to own. Audiobus and IAA are, of course, supported.

Both apps are, however, are excellent and either will serve you well.... but effects apps in general is a category where, very soon, the AU format is going to prove very popular.



AUFX:Space by Kymatica



Altispace by Igor Vasiliev



18 Other conventional effects

As with the guitar amp sims category, there is actually a lot of choice here so, rather than railroad readers into a single app here I'll provide you with a few alternatives. Unlike the guitar amp sim category however, all these apps do slightly different things. You could therefore, pocket money permitting, buy any number of these at some stage. They would all come highly recommended.

Echo (or delay) effects are another very commonly used conventional audio effect in multitrack recording contexts. In terms of a standard delay effect, perhaps the best of the current bunch is Kymatica's AUFX:Dub (UK£3.99/US\$4.99). The interface is similar to that of AUFX:Space - simple but efficient – although it obvious contains a modified control set suitable for setting up delay/echo style effects rather than reverbs.

The controls include a very useful bypass switch, a mute in button and, if you want to sync your delays to either a specific tempo or tap them in by hand, then you can do that also. As with AUFX:Space, AUFX:Dub has support for IAA and is also compatible with Audiobus so, if you want to use the effect within a recording context, this is easy to do. In short, an excellent app that gets the job done with a minimum of fuss and at a bargain price.



AUFX:Dub is very easy to use and, with both Audiobus and IAA support, works well in a recording context.



For a dedicated EQ effect, another of the AUFX series is worth considering; AUFX:PeakQ. With both Audiobus and IAA support, this app provides plenty of control when you need to fine-tune the EQ of a particular sound. You get four-bands of EQ controls providing a combination of high/low shelving filters and two parametric bands with gain, frequency and bandwidth controls. The app also provides very good metering options so you can see exactly what your EQ settings are doing to the signal. As with the other AUFX series apps, this is ridiculously cheap (currently UK£3.99/US\$4.99) given what it has to offer.

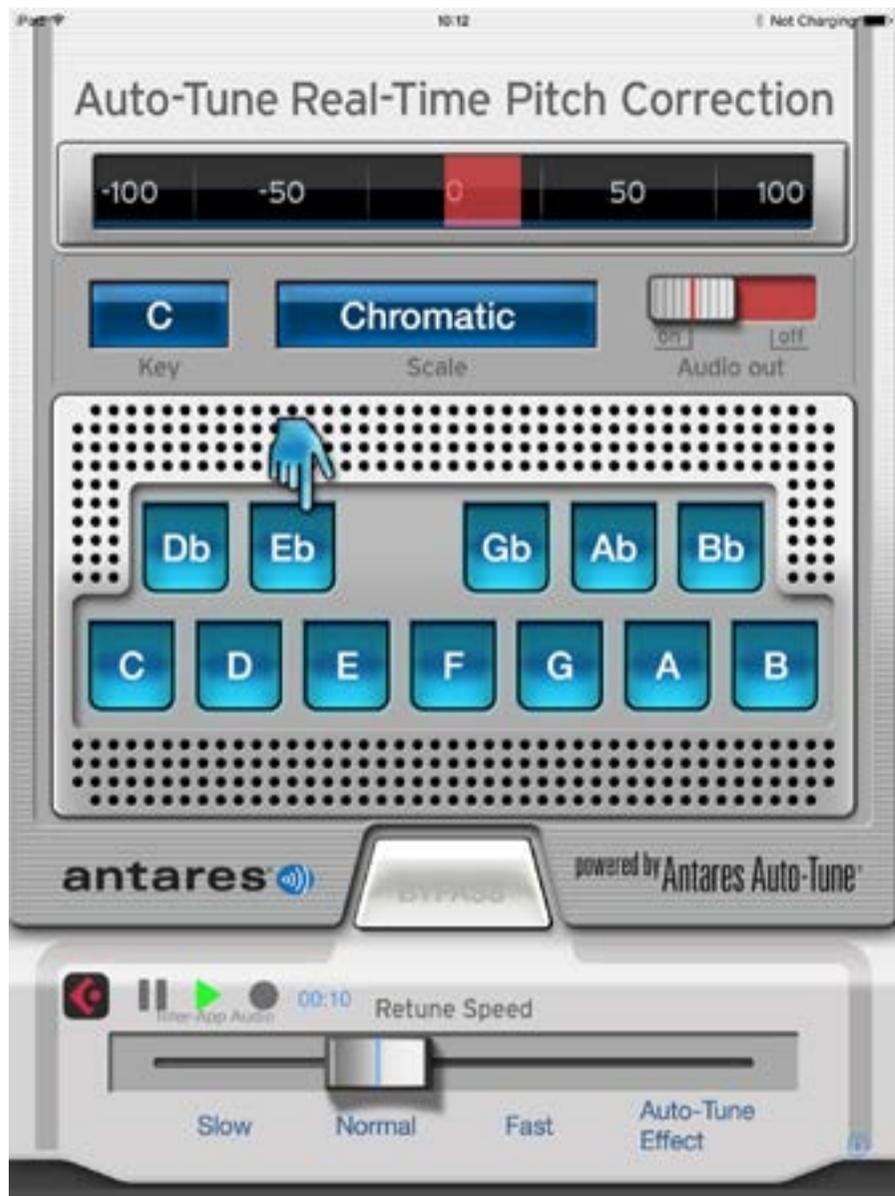


AUFX:Peak is also very easy to use and includes Audiobus and IAA support.

I've included Auto-Tune Mobile within the 'conventional' effects category because, frankly, pitch correction is now pretty much ubiquitous in modern recording. However, pitch correction is not particularly well served yet under iOS and, in terms of a dedicated app, AutoTune iOS is about as good as it gets. That said, it is made under license from Antares (one of the leading software developers of pitch correction software) so it has some pedigree.

The key limitation here is that you don't get anywhere near the same level of control or editability that is provided in the (admittedly much more expensive) desktop equivalents. The consequence is that, unless used carefully, the processes can make itself apparent. Audiobus support is included as is IAA so it is easy to use the app within a host DAW and pitch-correct your vocal tracks. At UK£3.99/US\$4.99, it probably won't break the bank and, until someone comes along and really takes this audio processing need by the scruff of the neck, Auto-Tune Mobile will do a decent shift.

AU is beginning to make its mark under iOS so I ought to mention at least one audio processing plugin that is available in this new - and very exciting - format. There are a number I could have plumped for here but, if you have a suitable AU host (such as Cubasis or AUM), then the 6144 EQ from DDMF is well worth a look. This plugin is modelled on



Auto-Tune Mobile; basic pitch correction at an affordable price.

a classic Neve hardware EQ unit and is perhaps one of the first 'boutique' style EQ plugins we have seen for iOS. And, at UK£7.99/US\$9.99, it is a very forgiving EQ with just a little bit of vintage character to it.

A final suggestion in this category is the Master FX app from developer Igor Vasiliev. This is also a 'multi-effect' app but, in this case, it offers a combination of 3-band EQ, chorus, flanger, pitch modulator, delay, reverb, compressor and limiter all for a modest UK£8.99/US\$10.99.

You can use up to six effects at once and Audiobus and IAA support are included. In addition, the app offers very flexible audio routing options so, if you have an audio interface that supports two inputs (left/right), in some configurations, you can use the app to process the two signals through different combinations of audio effects at the same time.

The user interface is simple and solid and, while you can find individual effects with



DDMF's 6144 EQ offers a boutique EQ in an iOS AU format.



Master FX brings EQ, compression, reverb, delay, chorus and a number of other effects into one flexible and powerful app.

more detailed levels of control offered than those provided here, the app actually strikes a very good balance between ease of use and editability. It is probably due an update but it is still capable of doing a good turn. And while there is enough going on that there is a short learning curve, it certainly wouldn't be too daunting for most new users after a little experimentation.

There are plenty of other conventional audio effects apps in the App Store that you could add to the suggestions I've made here. However, as a place to get started, these offer a decent selection. Do remember, however, that unlike on a desktop system, where many effects come in the form of software 'plugins' that you can use multiple times within your recording software, unless you are using AU effects plugins within a suitable AU host app, under iOS you can only have one instance of an app running at any one time. You might, therefore, find you need a more than just one EQ or compressor app as your recording projects grow in complexity.

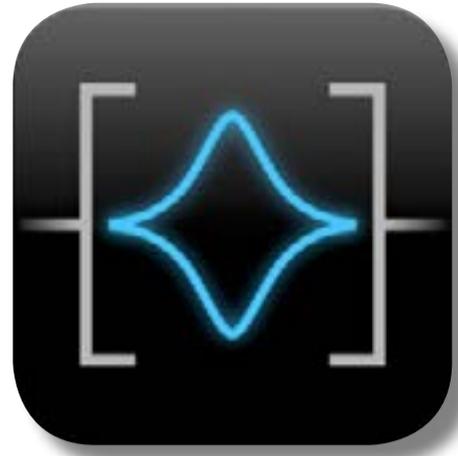
To be honest, however, the selection here is just scratching the surface of what's available on the App Store. Check out the reviews on the Music App Blog for apps such as Voice Rack FX, MicSwap Pro, Limiter, Johnny, R0Verb, Korvpressor, AUFX:Push, AudioReverb, AD 480 Reverb, VanDelay, Caramel, Stereo Designer... well, the list could go on.

And if you are already trying to steer a path down that of AU plugins, then do check out both RP-1 and RF-1 from Numercial Audio. These are delay and reverb plugins and both offer AU support. Check out the full reviews on the Music App Blog website.

AUFX:Dub by Kymatica



AUFX:PeakQ by Kymatica



AutoTune iOS by Susan Marvin



6144 EQ by DDMF



Master FX by Igor Vasiliev



19 Mastering software

Audio mastering is the process where – in a commercial context at least – the final mixes of a music project are passed to a ‘mastering’ engineer who, with access to some very esoteric and high quality audio equipment and a pair of ‘golden ears’ developed by years of experience, will fine-tune the audio to (hopefully) make it sound even better.

Back in the real world (that is, the world of no budget or low budget), most recording musicians have a stab at DIY mastering. Mastering tools are built into a number of the popular desktop DAWs and you can also buy stand-alone applications such as iZotope’s excellent Ozone.

Under iOS, aside from some of the excellent IAP plugins you can buy in Auria, there are two stand-alone apps that stand out for this application; Audio Mastering and Final Touch.

Audio Mastering (UK£9.99/US\$12.99) by Igor Vasiliev provides a combination of tools that can best be split into two types; those that allow you to change the audio format and those that change the sound. In the former, you can convert between WAV, AIF and MP3 and



Used with some care, Audio Mastering can help sweeten your final mix.

change bit depth or sample rate (with dithering included to improve noise performance). In the latter, there are four components; a 10 band graphic EQ, three-band stereo width processing, harmonic saturation for adding a little warmth or sparkle and a loudness maximiser.

The interface, like Master FX from the same developer, is fairly clean and uncluttered. Equally, you are given enough control to get the job done but not overloaded with options that you might only use on rare occasions. Mastering itself is a skill that takes some time to learn but Audio Mastering will not add to that burden.

In contrast, Final Touch (at the time of writing, available for an incredible UK£2.29/US\$2.99) by Positive Grid (the team that gave us BIAS Amps and BIAS FX) is perhaps slightly slicker in appearance and, when you dig in, perhaps gives you a finer resolution of control. In that



Final Touch provides a deep and powerful DIY mastering solution. The interface is very polished but the app does take some learning to get the best from it.

sense, it is perhaps a little bit closer in nature to the desktop software like iZotope's Ozone that was mentioned earlier.

As with Audio Mastering, Final Touch provides you with a number of processing 'modules' that you can switch in/out of your signal chain. This includes two comprehensive EQ modules, a master reverb, dynamics, stereo imaging and a loudness maximizer. Given the flexibility and depth provided, Final Touch perhaps has a slightly steeper initial learning curve than Audio Mastering but there is no doubting that it is a powerful tool in the right hands.

Mastering is both an art and a science and, without some care and common sense, it is just as easy to ruin a mix through DIY mastering as it is to make it sound better. That said, both Audio Mastering and Final Touch provide you with an excellent set of tools to do a decent job so, if you do get it wrong, it's probably not the fault of the app. These are powerful sets of processing options and, with Audiobus and IAA support, plus plenty of ways to get your audio in and out of both apps, they make it very easy to use with mixes created in other iOS apps.

Audio Mastering by Igor Vasiliev



Final Touch by Positive Grid



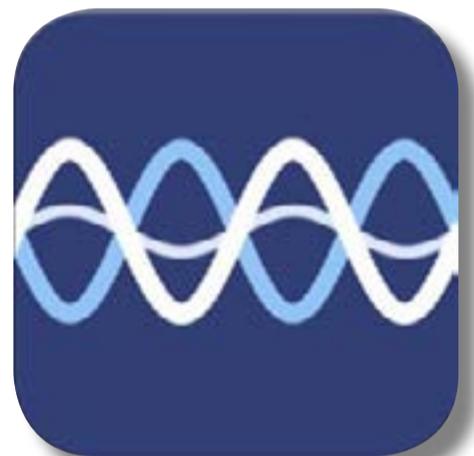
20 Creative audio effects apps

Outside the more conventional reverb and delay effects processors, iOS is starting to see some interesting 'special effect' style apps appearing. There are actually a good number of these and, again, I've made a few suggestions here rather than plumping for a single app as I suspect different readers might find each of these appealing for different reasons.

Top of my personal tree in this regard is Turnado (UK£14.99/US\$19.99) by Sugar Bytes. Turnado is, in essence, an iOS multi-effects processor. A total of 24 different effects types are included, any eight of which can be built into a Turnado effects preset, configured to taste and then manipulated or triggered in a variety of very hands on and creative ways. The effects include various types of delay, reverb, modulation, filters, loopers, amplifiers and DJ-style processes. The



Turnado's interface packs a lot in but it is brilliantly designed and the real-time control features provide some very creative options.



app can be used stand-alone or, via Audiobus or IAA, in conjunction with other apps so, if you want to process your synth, guitar or drum app, then Turnado will allow you to do so.

The obvious application is for manipulating drum beats and a number of the effects – stutter, vinylizer and slicearranger, for example – offer some fun in this regard. However, Turnado is easily more than just a beat basher; with the filter options (particularly the vowel filter which is very cool) and the vocodizer, it is also brilliant with harmonic material such as synths, basses, guitars or vocals. It is brilliantly conceived, the interface offers all sorts of intuitive ways to ‘play’ the effects and the effects themselves are wonderfully creative.

This is an app that any electronic or experimental musician will want in their iOS app collection. The downsides - if there are any - is that it does take some learning (the price to pay for the depth on offer) and the interface is quite busy. This is not so bad on a full-size iPad but I’m not sure it would be quite so much fun on an iPad mini.

Effectrix is another multi-effects app from Sugar Bytes and, in some ways, it overlaps a little with Turnado. However, the key difference here is that you can control the various parameters of the effects via a step-sequencer environment. As the app can be tempo sync’d to other apps you can, therefore, have all your effects changing their setting in time with your overall project. The results can be creative, very cool and, at times, totally bonkers.



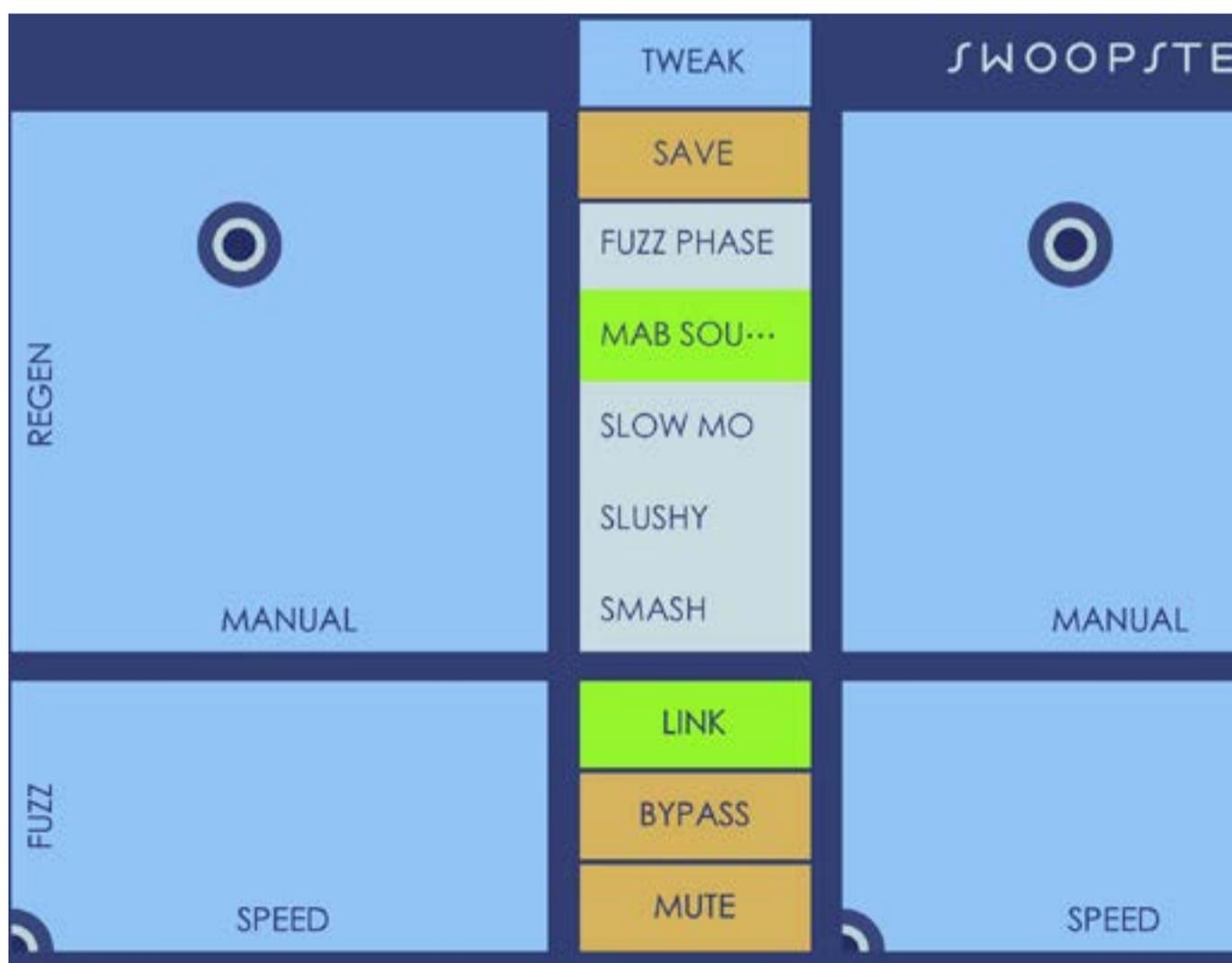
Effectrix; creative multi-effects controlled by a step-sequencer. The results can be brilliant once you scale the learning curve.

Effectrix is currently priced at UK13.49/US\$17.99 and it includes Audiobus and IAA support. The included effects cover reverb, delay, chorus, phaser, filter, distortion, vinyl/DJ effects and various looping options. While it is perhaps not quite as intimidating as Turnado, this is still a deep app. If you are up for the challenge of mastering it, the rewards are well worth it, but for those looking for an easy ride to creative audio mangling, then birdStepper (below) might be a better option to start with.

Not all the creative iOS multi-effects processor apps are quite as mind-expanding as Turnado or Effectrix. For example, Holderness Media (run by the brilliant Christopher Rice) have a series of apps that fall into this category but which are an absolute breeze to use. My two personal favourites in the current line up would be Swoopster.

Swoopster (UK£3.99/US\$4.99) is described as a 'highly playable flanger, fuzz and vibrato effect'. Flange, fuzz and vibrato are pretty standard effects but the 'highly playable' bit is what makes Swoopster so much fun. While you can dig deeper into the control set via the app's 'Tweak' mode, the 'Perform' mode provides access to four large X-Y touch pads that allow you to use the touch screen to change the effects parameters in real-time. These allows you to have independent control over the left/right channels of the stereo image if required and, as the name suggests, all sorts of ear-candy swooping effects can be created. Swoopster can do subtle, but that's not really what it's for.

With Audiobus and IAA included, this is very creative and just great fun to use.



Swoopster's Perform screen; instant effects gratification under your fingertips.

Like Turnado, Flux:FX falls in the the 'creative multi-effect' category. Here you can combine up to five different effects from the choice of around 30 (and with more to be added in future updates apparently). The five effects can be placed in any order within an effects chain and, if required, you can select multiple instances of the same effect should you so wish.

The effects themselves are organised into a number of groups – loopers, dynamics, distortions, EQs/filters, modulations, delays (including reverb) – making it easy to find what you might want. Each effect type has a dedicated and (as we will see later) easy to adjust, set of controls. For each of the five effects slots, this includes an individual X-Y control pad and you can easily assign any of the effect's controls to this via the interface. You then get very easy real-time control of the effects and there is also a 'sequence' mode, where you can change the parameters of each of your five effects on a step-pattern basis. Equally, the app includes support for external MIDI control of many of its features.

The UI is very slick indeed and, while you can have a lot going on in terms of audio processing, it is generally very easy to find your way around. OH, and it sounds awesome so, at just UK£13.99/US\$17.99, Flux:FX is a bit of a gem.



Flux:FX - it can do subtle or more in your face. This is one of the most creative multi-effects apps available for iOS.

If Turnado looks a bit intimidating and even Flux:FX gets your head spinning (honestly, they are not that scary once you spend a little time with them), then you might like to start your multi-effects journey with DFX from Fingerlab. Priced at UK£2.99/US\$3.99, this has to be some of the best value for monet audio effects processing you can buy on any platform. You can combine up to four effects at any one time and, with Audiobus and IAA included, the app is easy to use in almost any context.



DFX - Digital Multi-FX from Fingerlab; very easy to use, very creative and very good value for money.

I think any iOS musician who has a fondness for getting experimental with their audio will get something useful out of this app and, at this price, it could easily be treated as a causal (experimental?) purchase just to see what you might be able to do with it. I certainly wouldn't have any problems recommending DFX to anyone in that context.

However, where I think the app is likely to press the most obvious buttons is with those iOS musicians who want to get into creative sound processing and have not, as yet, made a start. In that context, DFX would make a very good first choice. Then, if DFX gets you hooked on the whole 'creative effects' adventure, there are some other obvious candidates – a little way up the App Store price range – that you can consider to compliment (not replace) what DFX can do. By the way, it would be great to see some of the above offer AU support....

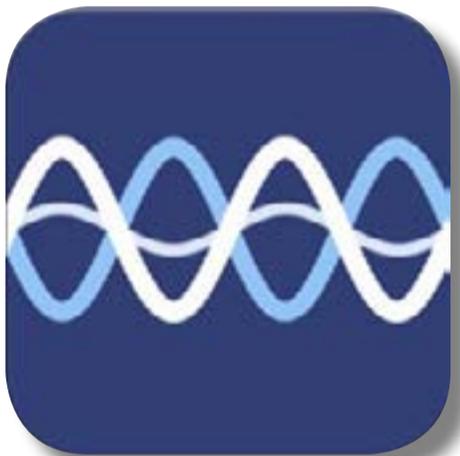
Turnado by Sugar Bytes



Effectrix by Sugar Bytes



Swoopster by Holderness Media



Flux:FX by Noiise



DFX by Fingerlab



21 VocaLive

If you produce song rather than just instrumental music, then vocals are critical to how effectively that song can be represented in a recorded format. Both Cubasis and Auria offer a range of effects processors that can help you shape your vocal sound to produce a professional, polished sound (providing, of course, that you made a decent job of recording it in the first place and your vocalist can actually sing). However, if you want a solution designed for vocal processing, then IK Multimedia's VocaLive app (UK£14.99/US\$19.99) is a bit of a gem.



As the name suggests, VocaLive is actually designed for use in live performance and, given the very intuitive interface (it looks a little like a virtual guitar pedal board, with each of the individual effects available as a separate pedal that can be placed within the four available effects slots), positioned within reach of a vocalist (perhaps attached to their mic stand using IK Multimedia's iKilp), it would make a great tool for that in a small gig context.



VocaLive is intended for live use but it works equally as well as a vocal processing tool in a recording context.

However, given that the quality of the effects is actually very good, it can also do duties in a recording context. The app includes five 'vocal' effects and a further seven 'studio' effects. Under the vocal group we have Choir, Double, De-esser, Morph and Pitch Fix, while the studio group includes Reverb, Delay, EQ, Compression, Chorus, Phaser and Envelope Filter. While there are some minor restrictions on which effects can be combined with which others (presumably to keep the total processing load and/or time within certain sensible limits), in the main, you have plenty of options for chaining these processors together in the four effect slots.

Particularly interesting are the vocal effects. For example, Choir and Double allow you to create automatic harmony parts, while the Pitch Fix (within limits) can be used to do a little pitch correction or as a special effect. While there are perhaps better examples of all of these processing options available to desktop musicians (at a much higher price and using more CPU resources), used with care, VocaLive can produce some excellent results. If you want to just give your vocal performances a bit of an edge, this is currently the best way to do it under iOS.

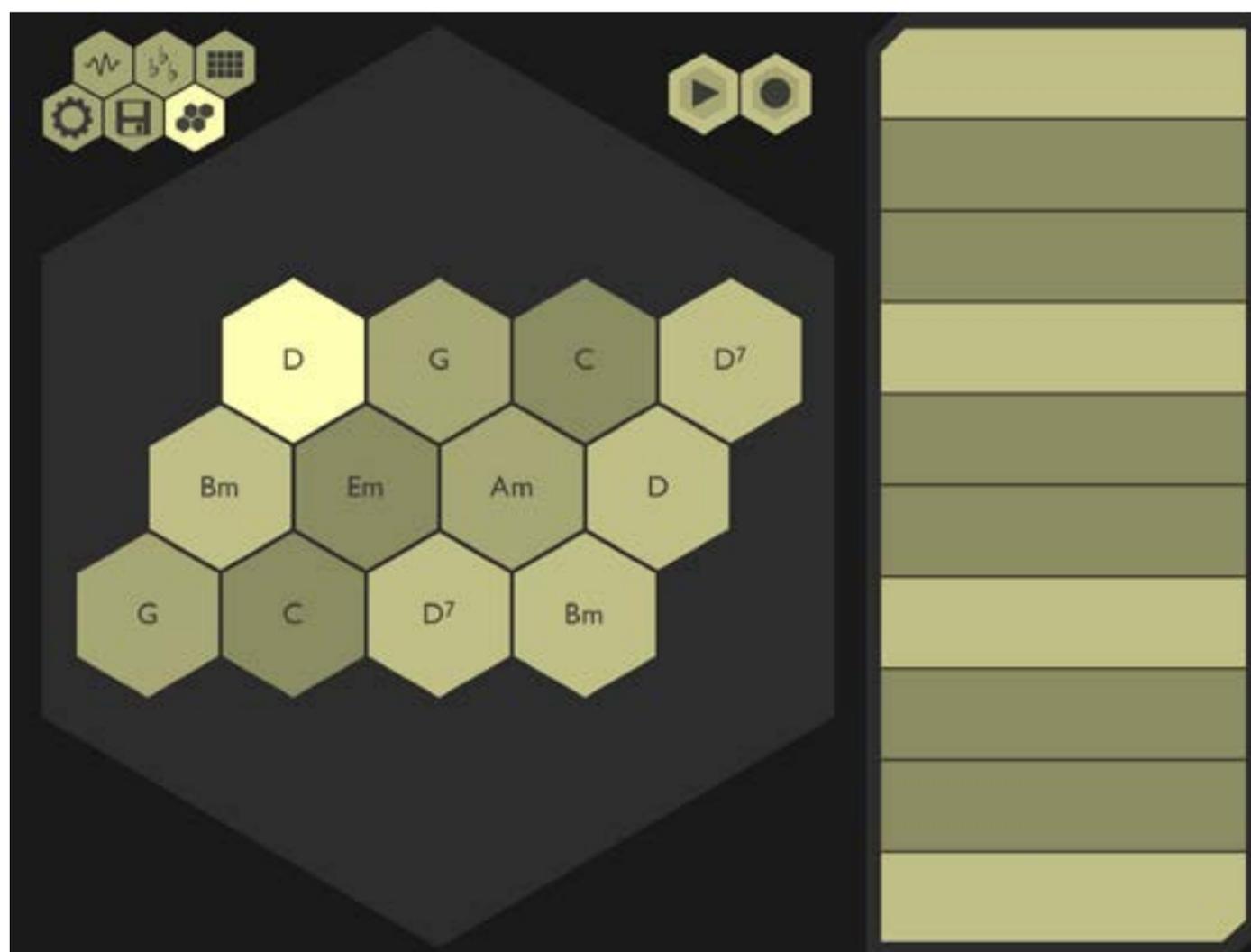


22 A MIDI performance app

When it comes to playing virtual instruments, the MIDI keyboard has always been king. This has always left non-keyboard players at a bit of a disadvantage when recording virtual instrument parts. There are, of course, alternative MIDI controllers for guitar players, drummers and even wind instruments but this technology is often expensive and, in the case of MIDI guitars at least, can be less than intuitive to use. Touchscreen devices have, however, opened up a whole new range of possibilities and iOS has a number of excellent apps that, via a novel use of the touchscreen, provide an alternative way to generate MIDI data to 'play' these virtual synths.

For me, two apps top this particular pile; Chordion (UK£2.99/US\$3.99) by Olympia Noise Company and ChordPolyPad (UK£9.99/US\$13.99) by Laurent Colson. And while they do a similar job, they have enough differences that they may well appeal to different types of users.

Essentially, Chordion provides you with a customisable set of pads that you can associate a particular MIDI chord to; tap the pad and the app plays the full chord and will, if required (the app has its own basic synth engine if you want to use that), pass that MIDI data on to your virtual synth or to a MIDI track in your DAW app. In addition, you also get an intelligent 'note strip' that you can play melody lines with and that ensures the notes are harmonically correct for the current chord. Depending upon how you configure the app, you can have up



Tap a hex pad and get a MIDI chord; Chordion is a simple idea but brilliantly executed. The note strip on the right edge also ensures your melody stays in tune.

to 24 different chords available to you. These could, of course, include different versions of the same chord perhaps with inversions or other differences in the voicings. Being able to specify chord voicings is very useful when, for example, using Chordion to play things like an orchestral string sound, allowing you to spread the notes of the chord out over more than a single octave.

Chordion is a brilliant example of something that a touchscreen makes possible under iOS that is not so easily implemented in a desktop computer system. It works very smoothly with other apps and can, if configured correctly, be used to send MIDI data to your desktop music system if required. Perhaps its only downside currently is that it does not yet provide a means of generating MIDI velocity data. That will, I expect, come in a future release but, even so, at its current pocket-money price, Chordion is an absolute no-brainer for non-keyboard players and, even if you have keyboard skills, far easier than playing a virtual piano keyboard on a touchscreen.

ChordPolyPad does a similar job to Chordion but, reflecting its higher price, perhaps offers a more comprehensive feature set. You get 8 banks of 16 pads into which you can define any chord you like with full control over how that chord is voiced (the number of notes and their spread across the MIDI note range). You can also switch from the main 'editing' display to a 'performance' view (where the pads fill almost the whole display) making playing very



ChordPolyPad; takes a little while to find your way around but this is a powerful MIDI performance tool that makes great use of the touchscreen.

straightforward and you can also switch between the 8 banks of pads very easily.

Where ChordPolyPad really scores is in the detailed way you can configure each pad and the ability to define MIDI controller data to be transmitted based upon where you tap (X-Y) on the pad when triggering the chord. MIDI data can, of course, be transmitted to other iOS music apps such as synths or your MIDI sequencer/DAW (such as Cubasis).

For quick and easy, Chordion gets the vote but for deep and detailed, ChordPolyPad is the better choice.

Chordion by Olyimpia Noise Co



ChordPolyPad by Laurent Colson



For electronic musicians

23 All-in-one electronic music production

I covered iOS DAW (digital audio workstation) apps with entries like Garageband, Auria and Cubasis earlier in this guide but there is a somewhat different class of music app that also provides a recording and/or composing environment; the all-in-one electronic music production app.

These apps don't allow you to do audio recordings (well, only in that some of them allow you to record and use audio samples). Instead, they provided various sample or synth based virtual instruments and a sequencing environment where you can record, layer, edit and arrange performances for these virtual instruments to create a complete music production. No, it's not possible (not easily anyway) to add elements like acoustic guitars or vocals but, if you are someone who works with electronic music styles, being able to get the whole job done within a single app can be very attractive.

iOS is well served in this area and, while I think there is one outstanding candidate, I'll give a shout out here to a few apps. Each of these offer somewhat different features and so may well appeal to somewhat different users.

Under iOS, both NanoStudio and Caustic are worth contenders in this category but, as neither has been updated under iOS for sometime, I'll focus on those apps that seem to have a more active development programme.

For my personal choice, top of this particular tree would be Gadget (normally UK£29.99/US\$39.99) by Korg. Launched early in 2014, Gadget caused quite a stir on release. The basic format provides a number of different virtual instruments ('gadgets' in Korg speak) that can be combined to create your finished production. However, the interface is ultra-modern and the MIDI sequencing environment with its 'scene' concept is slick and, in iOS terms, quite powerful.

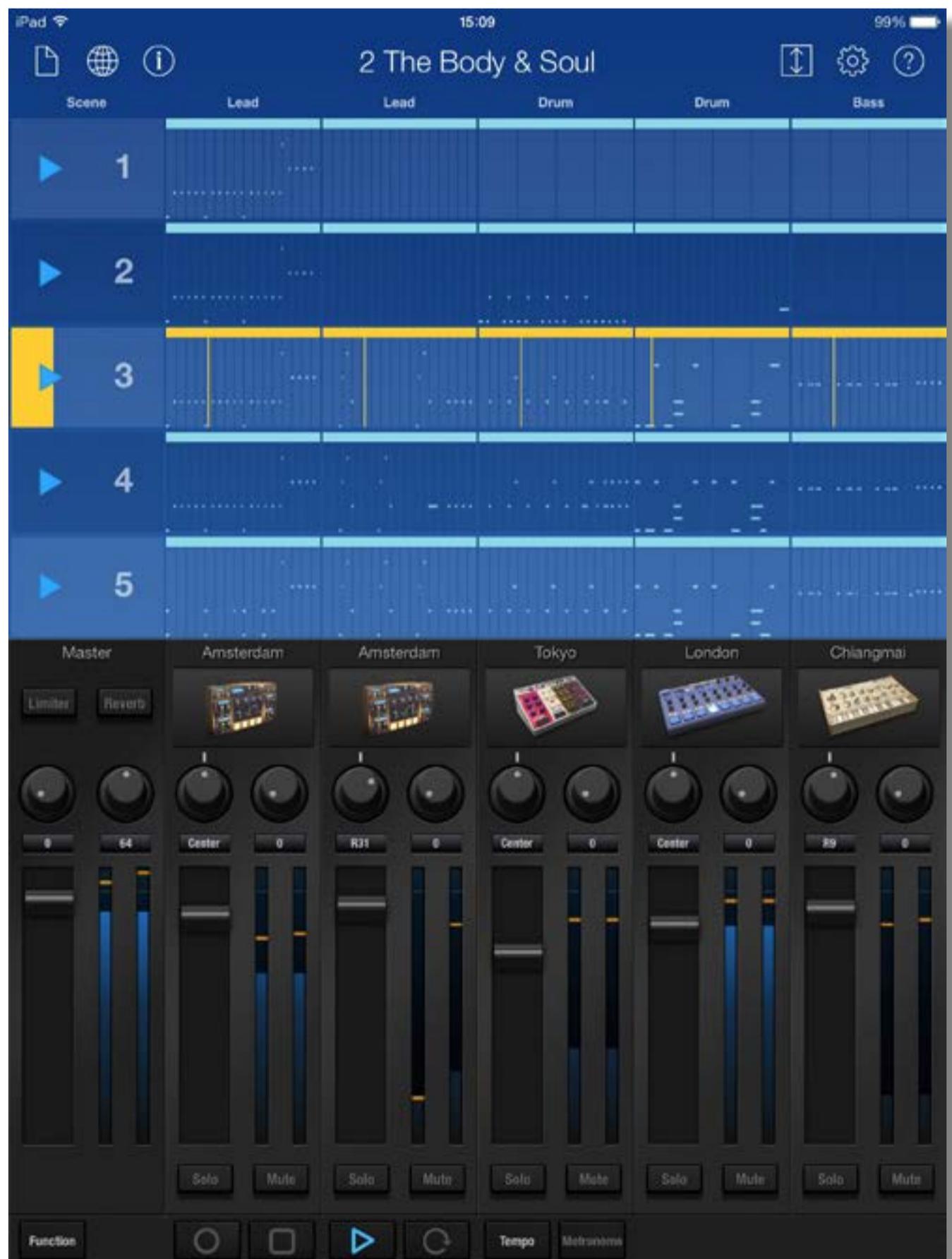
The instruments cover a range of synth types and drum machines and are all easy to use. While there is plenty of choice, and some great sounds to be had, there are still a couple of 'gadgets' it would be nice to see such as a sampler. However, Korg have made plenty of



noise about future developments for Gadget including the possibility of introducing audio tracks. That would help the app cross over into the DAW market and would open it up to a wider range of potential users. However, even so, this is a powerful and brilliantly conceived piece of software. And, while it was originally an iPad-only environment, as part of a steady stream of updates that have included many new 'gadgets' as IAPs, the app is now universal so will run on suitable iPhone hardware.

One point is worth repeating here; Gadget is an all 'all-in-one' music production app. While it is not closed (you can export your productions into other apps such as a DAW for further work) the advantage is that you only have to learn one app. In terms of actually getting some music made (as opposed to getting distracted by all the possibilities offered by lots of different apps), for those lacking in self-discipline, this can be a good thing.

Korg's Gadget features a well designed scene-based sequencing environment and a super-slick interface.

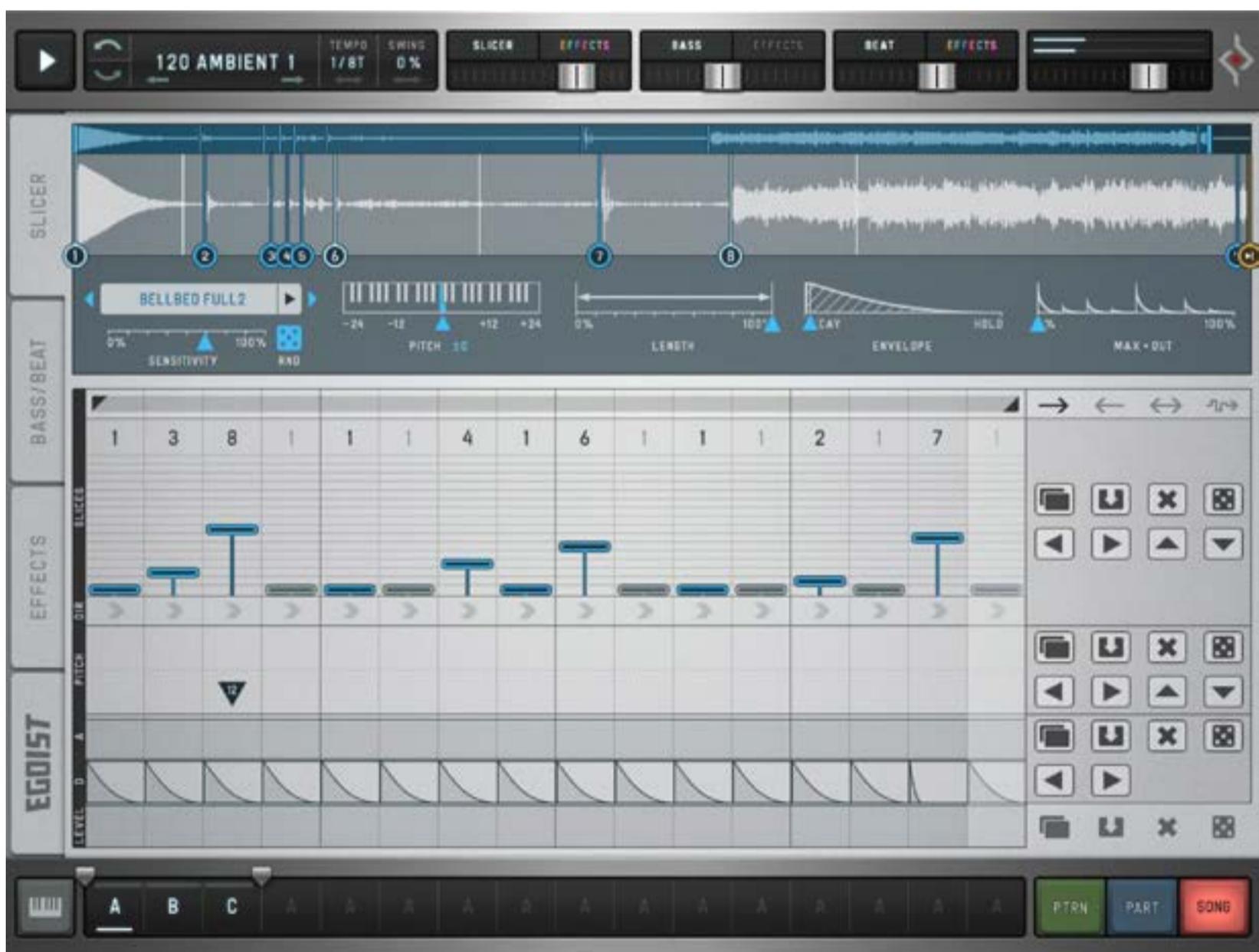


While Gadget (and both Caustic and NanoStudio mentioned above) can be considered as fairly well self-contained and based around a familiar MIDI sequencing environment (well, familiar-ish; the 'scene' based MIDI sequencing is beautifully implemented for the touchscreen), my other contenders in this category are slightly different; Egoist from Sugar Bytes, BeatHawk from UVItouch and Blocs Wave from Novation.

None of these apps is perhaps as 'all inclusive' as Gadget and all offer a somewhat more focused and/or streamlined feature set. However, they are all capable of making a lot of noise and, for electronic music production, all are brilliant.

Egoist is another port of one of Sugar Bytes rather brilliant (if also slightly mad) desktop applications over to the iPad. Priced at just UK£22.99/US\$29.99, Egoist has all the features of the more expensive desktop version and combines loop slicing/sequencing with drums, bass and effects. If you want a more minimalist approach to getting some electronic music ideas together, this is a real contender.

Egoist is all about a fast and creative workflow, allowing you to get ideas going quickly. You do this via three sound sources; a loop slicer, a bass synth and a drum machine. In the loop slicer you can slice a loop in a ReCycle-style and map those slices to MIDI notes. The bass synth is a very simple – but also very effective – virtual instrument and you then get an



Egoist from Sugar Bytes - a quick and very creative approach to electronic music making but with plenty of options when you dig in.

equally straightforward drum machine – just kick, snare and hihats – with multiple kits to choose from and a diverse set of electronic drum sounds to explore.

On top of the basic sound sources, you also get audio effects. In fact, the effects section is almost a mini-Effectrix with seven different effects – filter, delay, reverb, lo-fi, chorus, tape stop and looper – and you can toggle on/off whether each of the three sound sources pass through this effects chain.

Egoist is a joy to use and, as a means of quickly generating some electronic music ideas, is a very cool little tool at a very competitive price. The results can be simple and cool or far enough left-of-centre to create some really off-the-wall music. If you like building your electronic music from loops and grooves, and you like to be able to work quickly, then Egoist is most certainly going to appeal. Highly recommended.

BeatHawk offers another alternative take on electronic music production. With it's 16 'drum trigger pads', the app has all the signs of being a virtual drum/rhythm groove box and it does indeed do a very good turn at that role.

However, priced at UK£7.99/US\$9.99, BeatHawk includes a 900+MB sound and instrument



UVItouch's BeatHawk has the look of a classic beat/groove rhythm box but, when you explore the full feature set, it is actually a fully blown electronic music production platform.

library and as well as beats, delivers multi-sample instruments, sampling, time and pitch stretch of samples and a 16-track (that is, one 'track' for each of the 16 pads), pattern-based sequencer. The app includes IAA, Audiobus and CoreMIDI support as well as AudioCopy, WIST and import and export of audio. There are also additional sample packs – via IAPs – available from UVI's extensive catalogue.

In addition to the drum pads, other screens provide you with access to playable (melodic) instruments based upon a sample loaded into one of the pads. There is also a comprehensive pattern sequencer and, if required, a song mode so that you can chain patterns into a full production.

All of this - and more - is wrapped up in a super-slick user interface. This is a very smooth operator and UVI have struck a brilliant balance between the range of features and the ease of use. This could easily become your 'go to' pad-based beat/groove construction app simply because it is – once you have spent just a short time with it – so intuitive and streamlined to use.

My final suggestion in this section is another personal favourite but this is also a relatively new app compared to some of the others I've included above; Blocs Wave by Novation. If you have as many music technology miles on the clock as I do, then you may well have fond memories of a Windows-based music application called Acid, originally developed by Sonic Foundry and now owned by Sony Creative Software. Acid was a revelation when it first appeared in that it allowed you to creatively mix and match pre-recorded audio loops into musical compositions by performing real-time pitch and tempo matching for the user. It was (and still is) brilliant.

Blocs Wave is a super-cool environment for getting creative with loops.



This kind of technology now exists in many desktop DAWs but loop-based music composition is also available under iOS and, for my money, Novation are perhaps the best exponents of the technology. Their Launchpad app offers one approach but Blocs Wave is, I think, a somewhat different - and somehow more creative (to me at least) - take on the genre. The app is priced at just UK£4.99/US\$7.99, is universal and offers a huge range of additional loop content to explore via some inexpensive IAPs. You can, however, also import loops and record your own.

Essentially, you can then mix and match up to eight loops at a time, with real-time pitch and tempo manipulation. Within a project, you can also create 'sections' - a specific set of eight loops - and use these as different song elements, switching between them in real-time to create a full performance. With features for basic loop editing, loop slicing, Audiobus, IAA, Ableton Link and, most recently, Ableton Live Sets export, while it is very different from Acid in operation, it certainly brings some of the same creative options for those working with loops. The interface is brilliantly executed and the app a pleasure to use.



Blocs Wave includes all sorts of creative options for working with loops and the development progress Novation have made since the app was first released has been very impressive.

Gadget by Korg



Egoist by Sugar Bytes



BeatHawk by UVitouch

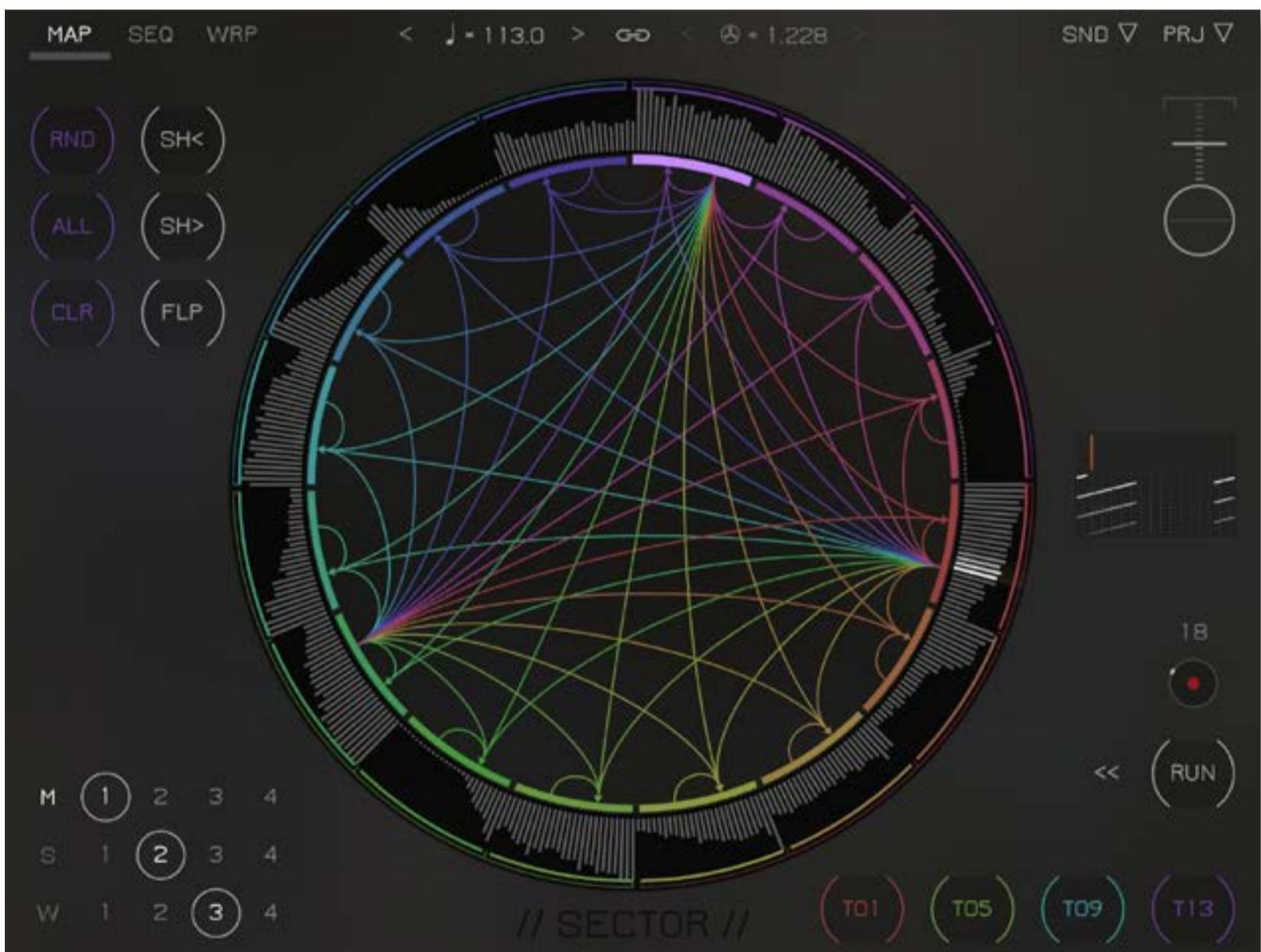


Blocs Wave by Novation



24 Sector

One of the key elements in electronic music production is the rhythmic groove. There are, of course, all sorts of ways you can approach this element of a production and there are, equally, all sorts of iOS music apps that can be used (including the rhythm-based virtual instruments contained within NanoStudio, Caustic, BeatHawk, Egoist and Gadget mentioned above). However, if you want a recommendation for something at the more creative and experimental end of the spectrum then look no further than Sector (at the time of writing, UK£4.99/US\$6.99) by Jonatan Liljedahl of Kymatica.



Sector; a stochastic sample slice sequencer. Don't worry too much about what that means; just load up a loop and start to explore. This is endlessly

I've given Sector an entry of its own because, personally, I think this is something of a unique - and rather special - app. Sector is an audio slicer/re-arranger tool and, while beat slicing is a technology that has been around the desktop for many years, I don't think it has ever been done quite like this. In Sector speak, these slices are called 'sectors' and your loop can be chopped into anything between 2 and 32 of these sectors.

Sector then applies a series of random probability-based rules to control how these slices are then re-assembled. The user can control a range of elements in these probabilities by drawing lines between the sectors (as shown in the screenshot) and giving each connection a relative probability. These probabilities control which sector gets selected after the current one has been played.

In addition, there is also a step-based sequencer where you can override the probabilities and force certain slices to play on certain beats of the pattern. Equally, you can also apply a number of different audio effects (Sector calls these 'warps') to a sector on playback.

If this all sound complicated well, in principle, it is... but because the interface is brilliantly designed and, as a new user, you can simply experiment and see what happens while you find your way around, you don't really get overwhelmed by what is actually a very deep and sophisticated bit of software. Like Stereo Designer (mentioned earlier in this guide), Sector is another app that, if it existed in a desktop VST/AU plugin format, I'd buy it in an instant. This is top-quality stuff and endlessly creative.



And because they are fun

25 Quick, creative, collaborative

Sometimes you just need a bit of musical fun rather than a heavyweight compositional experience. iOS has all sorts of options here but, for different reasons, I'd like to offer three possibilities here; Figure, Loopy HD and Cotracks.

For electronic musicians, Figure (a free download) by Propellerhead is for those occasions when you want an instant musical fix. Propellerhead are, of course, the company behind the amazing Thor synth discussed above and, while the two apps are both aimed directly at electronic/dance musicians, in other respects, they couldn't be more different. While Thor is a mighty beast and takes some learning, Figure can be learnt within minutes. Both, however, sound brilliant and Figure is perhaps the 'classic' example of a developer redefining how you might 'play' a musical instrument with



Figure's user interface is just a stroke of genius and demonstrates why - when a developer thinks outside of conventional performance options (piano keys or guitar strings) - a touchscreen can be so intuitive for music creation.

a touchscreen surface.

The app's name is derived from one of the key design elements of the instrument's user interface. The app's instruments are 'played' via a touch pad zone in the bottom half of the screen – and the user is encouraged to draw 'figures' with their fingers to generate sound. This drawing is done within a sort of X-Y pad and allows you to both play notes and vary the tone of the sound as you tap and drag. And as the notes are constrained to the chosen key/scale, it is almost impossible to create something that contains duff notes.

With three tracks available – drums, bass synth and lead synth – you can build up compositions of a few bars in length, record them and then improvise to tweak them in real time during playback. The experience is just brilliant and, while Figure is easy to learn, given that your mini-compositions can be easily exported and the fact that the app has Audiobus support, if you want to take any of your ideas further, it is perfectly possible to do so.

The real genius though is the user interface; while experienced musicians can exploit it, even those without traditional instrument skills can quickly put together musical ideas in an idle moment. About as much fun as it is possible to have for free.

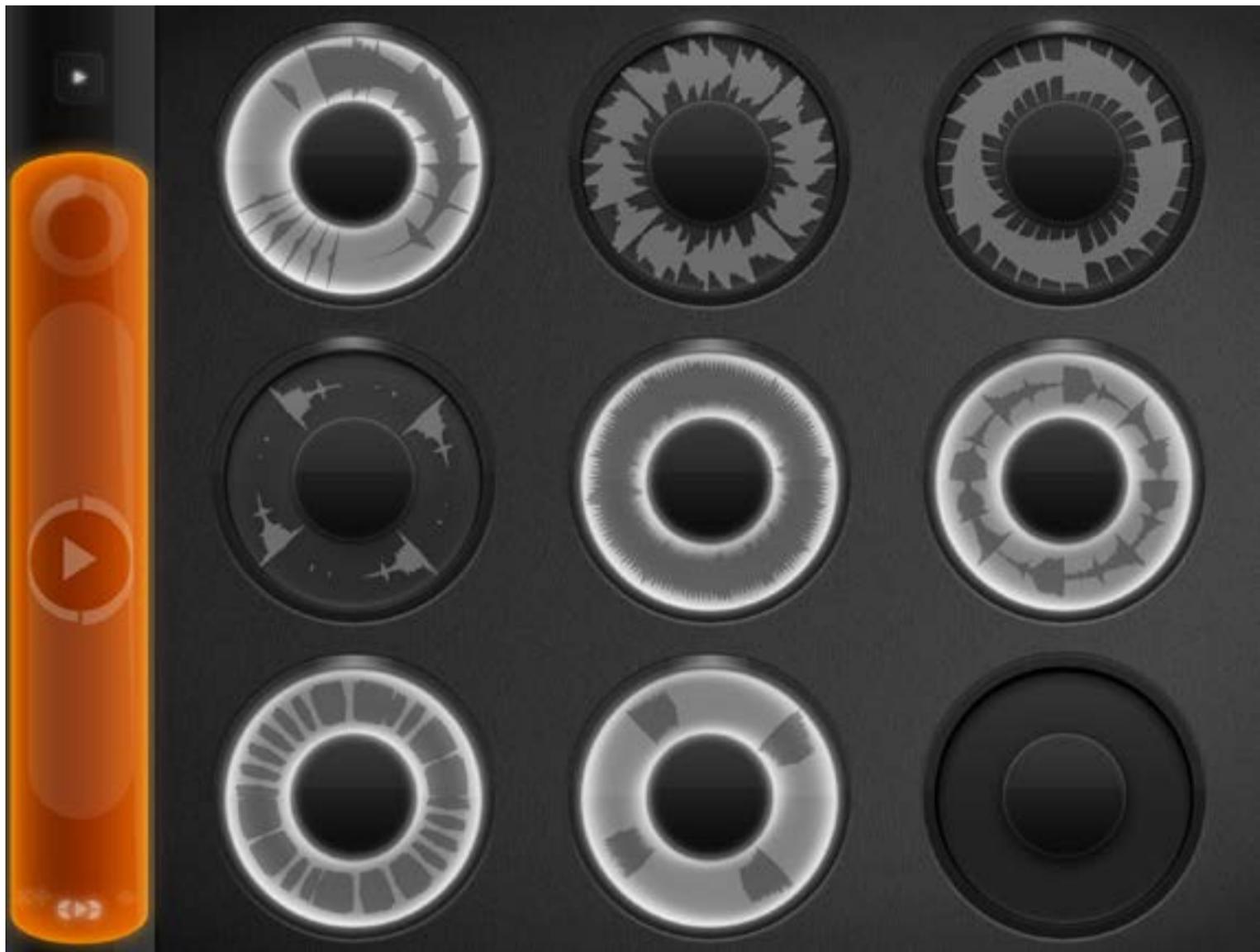
Loops have become an integral part of modern music making and, while for some musicians, this might simply be a few drum or percussions loops over which they layer their own guitar, bass, keyboard and vocal parts, for others – the 'loopers' amongst us – creative use of loops is taken much further. And although looping is something of its own sub-culture, it actually crosses a very wide range of musical genres. In a live context, you can buy hardware units that provide looping features (in terms of mainstream artists, KT Tunstall is a user, but lots of beatboxers or more experimental musicians also use these devices).

However, you can also get the same technology in the form of an app and Loopy HD (UK£2.99/US\$3.99) by A Tasty Pixel (the developer behind Audiobus) is the best iOS example by quite a stretch. Loopy HD's main workspace revolves (ouch!) around a set of circular loop waveform displays and there is a choice between six, nine or twelve loops in the display at any one time depending upon how complex you like to get. You can either record live audio into a particular loop slot or, if you tap and hold the center of the loop slot, import a loop file (WAV, MP3 and AIFF are all supported) via the context menu that appears around the loop slot itself. The app takes care of syncing playback of all the loops and, during a performance, you can drop loops in and out of your mix as required.

The app also includes a very straightforward session management system and the ability to record a whole session. This latter option can also capture any live audio input so, if you want to sing or rap over your loop-based bed/arrangement, you can easily do so. Recordings made in this way can be exported via email, SoundCloud, audio copy or via iTunes transfer. In Audiobus, Loopy HD can be used as either an Input or Output device. Rather wonderfully, when loading the Loopy HD app into the Input slot you can choose to send either the final stereo output or the output of an individual track through to apps further down the Audiobus signal chain. If you wanted to transfer a full Loopy HD project to your favourite DAW app you could, therefore, do it on a track-by-track basis.

Even for a novice user, Loopy HD is a great little musical sketchpad for creating musical

ideas. For dedicated loopers, the app might not have all the bells and whistles found in some looping devices (for example, the range of effects is not extensive) but it is a beautifully slick interface and, in the right hands, capable of some wonderfully creative things. It is also a



Loopy HD - it's a lot of fun but, in the right hands, it is also a tremendously creative tool

brilliant addition to an iOS recording toolkit for anything from creating and manipulating your own loops to building a complete backing track.

When it comes to having fun with music, collaboration with a few friends is often better than endless hours of playing by yourself. If you are an electronic musician, Cotracks (UK£2.99/US\$3.99) by Futucraft makes that possible using a single iPad. In fact, the app can be used in three modes; as a solo performer, with two users or with four users. In all cases, the instruments – consisting of a drum machine, a mono synth and a poly synth – are organised into four banks, each of which can play up to three different instances of one of the three instrument types. You can, therefore, have up to 12 virtual instruments in play at any one time (iPad CPU resources permitting) and in any combination of the three instrument types.

For each instrument, you can either record a short sequence (you can set the length of this for each instrument independently from 1 to 128 beats) or just play 'live'. Each instrument panel includes a 'Record' button and, once triggered, recording will start the next time the pattern gets 'in sync' with the overall playback of the project. Once you have recorded a pattern for one instrument, it will automatically start to loop playback alongside any other patterns.

While the synth and drum engines are very good and the way the app keeps all the performances locked in sync very clever, the really cute bit, however, is how the user interface reorganises itself for 2 or 4 users. For example, in four-user mode, the app reconfigures the whole screen so that one panel faces each of the iPad's edges. Four users could, therefore, sit around the iPad and each control a single panel.

The concept is brilliantly executed and, as the app also includes Audiobus support (amongst other useful export features), you can easily take your Cotracks compositions further if you wish. Cotracks is perhaps not really a recording app in the conventional sense of that term but if you think of it as a 'live jam compositional tool', then that perhaps catches the strength of the app fairly accurately. And if you have friends to play with, it is also a lot of fun.

Perhaps the only downside is that it has not been updated recently and I do hope Futucraft give the app a little continued love at some point soon. That said, it's still working fine for me on my iOS10 equipped iPad Pro.

As an electronic music production system, Cotracks is a lot of fun but, if you do have a few musician friends you can play with, getting four people playing around a single iPad - the mode shown in the screenshot here - can also be very creative.



Figure by Propellerhead



Loopy HD by A Tasty Pixel



Cotracks by Futucraft



About the Music App Blog

The Music App Blog website provides news, reviews, tutorials and resources aimed at musicians making music using mobile platforms such as Apple's iPhone, iPod Touch, iPad Mini and iPad under iOS.

The aim of the Music App Blog is to introduce you to this exciting new arena, keeping you up-to-date on what's happening, explaining how the technology works and, most importantly, helping you make the most of the musical potential mobile devices offer the modern musician.

The Music App Blog is run by John Walden. John is a freelance musician and music technology journalist. He divides his time between producing music for media applications (mainly through production music for companies in the U.K. and U.S.A. such Focus Music, Mode Production Music and Hollywood Trax) and writing reviews and techniques articles for one of the world's leading music technology magazines Sound On Sound.

John is also a big fan of mobile technology and gets a kick out of exploring and learning about any aspect of music making on his iPhone and iPad.... hence the website.

John has a PhD in rock. This might be kind of cool (if a little nerdy) but, unfortunately, this is the earth/environmental science kind of rock (even more nerdy) rather than the music kind of rock and it is of absolutely no benefit in his musical efforts. Such is life....

You can visit the Music App Blog website at:

www.musicappblog.com

And if you want to get in touch with John, you can find him on [Twitter](#), [Facebook](#) or via email:

john@musicappblog.com

