Alesis A6 Andromeda

An analogue super synth for the 21st century? Gordon Reid does some star gazing.

Two years ago, Alesis decided to build a synthesiser with an analogue signal path, modelling the oscillators on the Moog 921b (as found in Moog Modular synths), and the filters on (a) the Oberheim SEM multi-mode filter and (b) the Moog 904a low-pass filter. Once their engineers had designed prototype copies, the company's ASIC (Application Specific Integrated Circuit) designers shrank the circuits down to two chips, the ASO and the ASF, on which the Andromeda is built.

Eight ASO chips provide the dual VCOs per Voice (32 oscillators in all). These VCOs offer the usual analogue waveforms, coarse and fine-tuning, plus a sub-oscillator one octave below the selected pitch. As well as providing both soft- and hard-sync, each oscillator can be modulated by the other, and there are parameters for pitch envelopes, pulse width modulation, plus a range of user-definable modulation sources and destinations. Each Voice also offers noise (in white, pink and red varieties) and a ring modulator.

Once you have determined the output created by each of the sound generators in a Voice, you mix them in the Pre-Filter Mixer, which also allows you to mix in a feedback loop taken from the post-filter signal. This involves the familiar Minimoog trick of feeding one of the outputs back into the EXT Signal Input to fatten up the sound – although not quite attaining the same high-class effect as on the Moog.

The ASF filter chips provide two filters: a 12dB/octave resonant multi-mode filter, and a 24dB/octave resonant low-pass filter that will self-oscillate with the best of them. You can route the pre-mixed oscillators' signals through these in four ways: through Filter 1 only; through Filter 2 only; through Filters 1 and 2 in series; and through Filters 1 and 2 in parallel. While not as flexible as some 'virtual analogue synthesisers', this architecture nevertheless offers a great deal of versatility.

However, despite Alesis' claims, the Andromeda is not a "REAL Analog Synthesiser". Huge chunks of its architecture are digital, including the envelopes, the LFOs, and the Sample & Hold. This makes the Andromeda a 'hybrid' analogue/digital synth, much like the Prophet T8 (and many others). Don't misunderstand me – this is a good thing. For example, I love the Andromeda's three envelopes per Voice because they are extremely fast, and offer a choice of nine selectable slopes per stage. (You have to play with these slopes to realise how much of the character of a favourite old synth is determined by these responses.) Furthermore, you can loop the envelopes, which is excellent for slow, evolving pads.

Likewise, the Andromeda offers a S&H and no fewer than three LFOs per Voice. These provide six waveforms, a Delay function, and variable offsets, so you can program positive modulations (like a guitarist's vibrato), bipolar modulations (the vintage synth approach), negative modulations, or anywhere between. The only unexpected limitation here is the maximum LFO speed – at just 25Hz, it's

simply not fast enough for some applications.

And then there's the Modulation Matrix: a software matrix of 71 modulation sources and 92 destinations. Some of the modulations have dedicated top panel controls; for the others, you enter a page that allows you to determine all the routings and modulation amplitudes. Multiple sources can drive a single destination simultaneously, and a single source can drive multiple destinations. Furthermore, a 'Tracking Generator' allows you to redefine the input and output relationships of the modulation sources. This is powerful stuff!

The Effects & Mix Mode

The Andromeda's effects are split into two camps: analogue distortion, and 28 digital algorithms and combinations. A transistor circuit with four levels of drive – Easy, Light, Heavy, and Killer – creates the analogue distortion. The digital distortion is perfect for some patches – adding grit and drive where appropriate – but on others the transistor distortion is a little too harsh and edgy, like a cheap stomp-box. In contrast, the digital effects – based on the Alesis Wedge – are first-class. The maximum number of simultaneous digital effects is three (in series), but the configurations also include parallel pairs. My only reservation here is the so-called Lezlie effect (Alesis' spelling, not mine) which is ghastly.

However, here's the sucker punch… Although an Andromeda 'Mix' lets you layer up to 16 Programs, create keyboard splits with up to 16 regions, or create 16-part multi-timbral setups, there is only *one* set of effects in the Andromeda. This means that you can't allocate different effects to the Programs in a Mix.

Arpeggiator and Sequencer

You'll find the Andromeda's arpeggiator, sequencer, and various sync capabilities grouped together in the Clock Section. There are three clocks available: Midi Clock, the internal Master clock (which can itself be slaved to incoming Midi), or the Local clock for the given sequence, arpeggio, or modulator.

The arpeggiator offers a very limited number of modes (just four) compared to most modern arpeggiators. This is far removed from the sophisticated systems found on many virtual analogue synthesisers. It's also awkward to use, and I would have appreciated some physical controls on the top panel: mode, local rate, and latch would be a huge improvement.

The 16-step software sequencer is somewhat more advanced, but you can only create sequences by programming them, because there is no facility to play them into the system. However, not all is gloomy… every Program has an associated sequence that is stored as part of the Program itself.

Ins & Outs

The back panel of the Andromeda is bristling with sockets. Firstly, the Main stereo outputs carry the signal and any effects. Next, you can use the Auxiliary outputs as a second stereo pair (minus effects) or as two monophonic outputs.

The eight stereo sockets that comprise the 16 Individual Voice outputs are an impressive sight, but I'm not sure how useful they are. I've long campaigned for individual Program/Bus outputs on workstations, but Alesis has instead chosen to give each Voice its own output. You can select which Voices will be used by any given Program, so you know which Individual Voice output(s) will carry the sound. But it's not what I wanted, because you then need to sub-mix these outputs before you hit your main desk.

The three audio inputs allow you to process external audio through the Andromeda's filters, VCAs and effects. You can process audio through the signal paths of Voices 15 and 16, disabling the oscillators for these Voices, or use the 'V 1-16' input, whereupon the external audio replaces the internal noise source, and becomes available alongside the oscillators for all 16 Voices.

There are also two CV inputs, and three pedal inputs: one for sustain, one for a momentary switch, and one for a continuous controller.

The Controls

As you can see, the Andromeda's control panel offers a huge array of nicely responsive buttons and knobs, with a 640 by 240 backlit LCD in the centre. Each of the physical controls call up associated menus, and you then use the 'soft knobs' and 'soft buttons' to edit the hundreds of parameters that comprise a patch.

As you delve deeper, you'll find that some sections have no top-panel knobs, and their buttons serve only to call the appropriate menus. To be honest, I never found this a problem because, like most players, I've become accustomed to the 'most important parameters get a knob, the rest live in menus' approach.

The Andromeda also offers three performance controls. To the left of the keyboard, you'll find the standard pitch-bend and modulation wheels, both of which can be assigned to any destination within the modulation matrix. The third is the long ribbon controller whose function, again, you can assign within the matrix. Indeed, you can assign it to multiple destinations with differing amounts if you wish, and even split it to offer two different functions in different positions. Bravo!

The Sounds

The factory Programs certainly demonstrate the Andromeda's ability to produce huge, ballsy sounds – they're big and fat and mostly quite difficult to put into a mix. Fortunately, Alesis is still creating factory sound sets, and it plans to archive all the banks on its website, so you should have immediate access to this growing library. Meanwhile, it's back to programming my own sounds…

It was at this point that I realised how much I liked the control panel. Okay, the graphic design is a matter of

taste, but the functionality is first class and it didn't take long to get the sounds I wanted. As I continued, I noticed something else: it's *easy* to get good sounds out of the Andromeda. Indeed, I found that many of the simpler sounds were the best. Forget the sub-oscillators and the ring mod… use one filter, then program simple, snappy envelopes, and add just a hint of reverb… it will work nearly every time.

The Andromeda's Unison capabilities allow you to select how many voices you want under each key, both in monophonic and polyphonic modes. Once you've done this, you can spread the voices around the central pitch to create truly huge sounds. If you use this judiciously, it's superb – a passport to Memorymoog territory. Another option is called Stack, which allocates all the Voices to the keys that you're playing. The Andromeda has another neat trick up its sleeve, derived from the Yamaha CS-Series. In the Post Filter Mixer you can add back the unfiltered sine waves generated by OSC1 and/or OSC2, and/or the output from the Ring Modulator. This allows you, for example, to reinforce the fundamentals of otherwise heavily filtered sounds.

Despite the nature of the oscillators and filters that Alesis copied, I found the Andromeda to be more like an ARP than a Moog. But that's no criticism – I was using Odysseys and Pro-Soloists long before I bought my first Moog. Either way, this means that the Andromeda falls squarely into the 'American' synthesiser camp, where it excels at brass, strings, and huge pads. This shouldn't be surprising… those are the strengths of all the classic American polysynths. It's also well suited to complex, evolving sounds.

Inevitably, there are areas where it doesn't shine at all, and most obvious of these are the organ simulations. I'm no slouch at getting an organ out of a synth, but the Andromeda proved to be extremely reluctant. In contrast, it is first-class at Rhodes, Wurlitzer, and FM piano patches. Ironically, it's the almost 'digital' clarity of its oscillators and filters, and the speed of its envelopes, that make this possible.

One more thing: in Mix mode, you can have 16 different arpeggiated Programs playing 16 different, dedicated sequences, all sync'd to a single master clock. You can even specify different relationships to the clock for each of these, creating some very complex effects indeed. It's a Teutonic dream [of the citrus variety? – CH]. Alternatively, you can have each running at its own tempo, perhaps with no musical relationship to the others [a more 'concréte' dream perhaps? –CH]. However, while the Andromeda will synchronise to the timing of external devices, it has no idea about bar-lines. This means that your sequences can be in time, but out of musical synchronisation, with other instruments.

Other Issues

Before concluding this review, I would like to have a word in Alesis' ear about some of the Andromeda's deficiencies. For example, it's far too easy to get the signal path to clip and distort, and you need to reduce the levels in both the pre-filter mixer and post-filter mixer to avoid this. I would also like to be able to spread the Voices in a Program across the stereo field. The only way to do this at present is to use the individual outputs and 16 channels on your mixer!

While I'm moaning, the Andromeda has only moderate storage capacity. There are three banks of 128 Programs plus two banks of Mixes. You can save your own creations in the one(!) User bank for each but, fortunately, the Preset banks are stored in flash RAM, so you can overwrite these too. However, you must do so in complete banks rather than one Program or Mix at a time. Let's be thankful that Alesis has added a slot for PCMCIA S-RAM cards.

Likewise, the Andromeda has a merely competent Midi specification. At the time of writing it lacks Midi Clock Out, and lacks SysEx transmission and reception of the control panel knobs and buttons (although, this sort of transmission would slow down even the slickest Midi setup). However, you can use it as a conventional master keyboard, with transmission and reception of controller messages such as mod wheel, aftertouch and so on. You can also select the Midi CC associated with each of its controllers, the foot pedals, and the ribbon controller – which, admittedly, isn't a bad way to go.

Galaxy Class?

The Andromeda is a powerful, meaty synth, this much is obvious. Indeed, I suspect the A6 is the closest thing there's ever been to an analogue workstation, so I would be keen to see 76- and 88-note versions.

Sure, there are some surprising deficiencies, the worst of which is the mono-timbral effects in the multi-timbral Mix mode. But as it stands, the Andromeda is all but complete – it didn't crash once, and it sounds great. Furthermore, the excellent design of (for example) the envelopes and modulation matrix should keep sound programmers happy for years. In that light, it earns a significant 'thumbs-up'.

But, obviously, its price alone dicatates that the Andromeda is not for everyone. Let's face it, the majority of players want digital workstations with all the facilities of the Andromeda – and much more – but at a fraction the price. So Alesis must be keeping its corporate fingers crossed that the Andromeda will attract enough people to justify the time, effort and cost expended in its development. I hope that it does, because we should congratulate the company for stepping beyond the self-imposed boundaries of other synth manufacturers.

Distributed by

- *Electric Factory*

Phone: (03) 9480 5988
Web: www.alesis.com

Price

- *$7,500*