

Soundscape Mixpander

Mixpander adds considerable DSP grunt to Soundscape's DAWs. Adam Fuest feels the power.

Much has been said about Soundscape as a recording system over the last few years and most of it has been very good. It has been judged to be one of – if not the most – stable direct to hard disk recording packages around. Being a user for three years I have only ever had one crash and that was due to hard disk failure, not hardware failure. My experience is not unique, as most Soundscape users would agree. By way of a quick Soundscape summary, the system is based on two software components that control Soundscape's hardware. The hardware contains the hard disks and the DSP for processing the audio. The two software components are the Arrange window and the Mixer window.

Until now, the emphasis within Sound-

scape has been to provide fast and intuitive recording and editing and it does this exceptionally well within the Arrange window.

nothing to you then let's just say that currently there are very few DSP cards out there for audio that come even near to this kind of power. This review is looking at the Mixpander 9 card but there is little difference between the cards other than the additional DSP. The Mixpander card features one multi-pin connector on the rear and two multi-pin connectors on the card itself for internal connections (more of this later). Mixpander connects to the DSP expansion port on the rear of the Soundscape unit via the one-metre cable supplied with the card, and this carries the 512 channels of I/O to and from Mixpander to the Soundscape hardware unit, ie. R.Ed or SSHDR. And, providing you are running the latest Soundscape software (v3.2), you will be greeted by a sight most

Soundcape users have only dreamed of on boot up – huge mixer processing power (and don't forget all the mixer elements in Soundscape are real time and able to operate at the elusive 24-bit/96k).

To give you some idea of the amount of power we are talking about here, I tested Soundscape's promotional literature and put together a mixer that featured 10 TC reverbs, 60 dynamics processors, 300 parametric EQs, six TC Dynamizers and 30 delays, all running at 24-bit! Okay, so

we are not going to run out of steam easily here, but what is very interesting is that the Mixpander has its DSP carefully monitored by Soundscape so as to ensure that it optimises the allocation of DSP and, unlike some systems, saves this allocation with the mixer settings thereby ensuring the mixer can be easily recalled. This is unlike some systems where this allocation is done from scratch every time the project is loaded and can, on occasions, with complex mixes, result in mixes that can't be recalled due to different DSP allocations. This is not a problem with Mixpander. As mentioned, the routing of the DSP is controlled by Soundscape, and very efficient it is too.

The Mixer is constructed of various elements by the user as work progresses, allowing for a great deal of flexibility. For example, if you like working on a split console you can easily construct one, if you like working on a quasi split in-line hybrid you can have one with up to 32 internal buses and of course 32 outputs and 28 inputs in a combination of TDIF, Analogue, and AES/EBU. Within the channels there are EQ and compression plug-ins from Soundscape, plus various other third-party plug-ins from Aphex, TC, Dolby Labs, Sonic TimeWorks, Wave Mechanics, CEDAR, SyncroArts, and Hyperprism. Which all sounds great, but what has always let Soundscape down (and hence lowered its profile in this plug-in fixated world) was the amount of DSP available for these processes... 'very little' or 'not enough' are usually the phrases reviewers use.

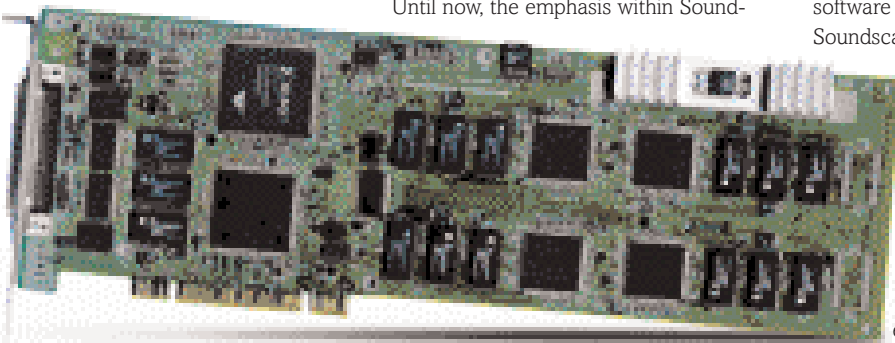
Enter Mixpander

Mixpander comes in two guises: either Mixpander 5 or Mixpander 9. They are full-length PCI cards fitted with nine or five of the latest Motorola 563xx DSPs. This is capable of processing up to 2.6 GIPS. If this means

The specs of the processors vary. Seven of the DSPs have their own external 384kB of super fast effects memory, and two are equipped with even larger amounts (1.5MB) of super fast SRAM for running multiple memory effects (eg. reverbs, chorus, flangers, delays and so on). This allows Mixpander to marshal its resources well.

Driver City

Mixpander's arrival was much anticipated and certainly didn't come as a surprise, but certain features were a very pleasant surprise. The fact we also get 16 (soon to be 32) super low latency ASIO2/GSIF/MME drivers with multi-



client ability and a response time down to 1.5mS, was not expected. These drivers appear as STR (Streams) in your Windows applications and have their inputs and outputs accessed via the Soundscape Mixer, sharing all the same resources and outputs of the Soundscape unit. For example, you can run both R.Ed tracks and ASIO tracks (running in Logic Audio) side by side, and you're able to port via the buses from one program to the other. In use, the drivers integrated perfectly with all my Windows applications and, barring a few complications with Nemesys Gigasampler, this has to be one of the easiest set of drivers I have ever installed. I constructed a mixer which sent Audio from R.Ed (via several plug-ins) to Audio Stream 1 of Mixpander via an auxiliary send that had been inserted within the channel. (You could, of course, send to the streams via the output of the channel but this will change your mix.) This flexibility within the routing, which allows you to access any input or output, is one of the mixer's strongest points and, married to the Mixpander, becomes an awesome combination.

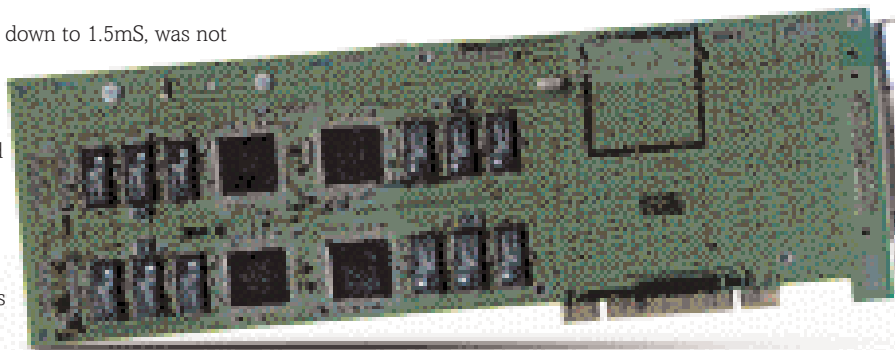
Another example of the flexibility of this system raised a few eyes in a studio recently when we inserted 24 of Soundscape's A/D D/A converters on the inserts of an old Series 80 console. Doing this, we were able to use all of Soundscape's mixer resources on an analogue recording with complete recall and automation on all parameters while simultaneously mix 24 tracks of Soundscape's own audio in real time. Believe me, it was most impressive! Anybody who has been looking into letting their old analogue beauty go, but has been confused by the closed nature and expense of some of the comparable systems, will find that the R.Ed and Mixpander is a formidable combination.

It's also worth noting Mixpander's second surprise – the inclusion of internal multi-pin connections. These will connect to an additional I/O board, providing three additional ADAT inputs and outputs, plus an additional TDIF port. A welcome capability to have up your sleeve.

The Software Side

To exploit all this power, software version 3.2 has been released, and with it comes many new features, such as the ability to copy Mixer columns and any item within the column. Unfortunately we are still unable to copy an element from one column to another. Also, the ability to easily insert channels is now made possible with v3.2. There are many other minor changes which all contribute to greatly increasing the speed with which you can construct and alter the mixer.

Now that Soundscape has all this DSP, the issue of plug-ins is far more relevant, as it now has the power to exploit them. Sonic TimeWorks recently released the CompressorX and this is a worthy addition. Often the descriptions that adorn plug-ins are masterpieces of fiction, supported



only by the artistic representations made by the graphics of said item, but CompressorX can pump, squeeze and generally behave like a useful compressor and does sound very nice. Arboretum's Hyperprism is a suite of nine plug-ins – of which, the 'Bass Maximiser', 'Sonic Disseminator', and 'Phaser' are particularly good – the user interface is unique and takes a little getting used to, but they work well. The Aphex tools combine the 'Exciter Type 3' and the 'Big Bottom'. These are well known plug-ins but have only recently become native to Soundscape and are essential. The Dolby tools are a prerequisite for authoring new media – although in view of recent decisions made in regards to the DVD-A format may need a little upgrade. The TC Reverb and Dynamizers need little introduction and again are excellent, while the Wave Mechanics reverb is a very powerful tool that previously was plagued by its hunger for DSP – not a problem now. The remaining plug-ins are Soundscape's own and cover EQ, compression, delays, and modulation. Apogee's UV22 is due imminently, as are a number of others. It has to be said that, although the list is not massive, everything is usable and I never feel short-changed in this area during a mix.

There are currently two hardware control units that address all of Soundscape's functions and these are the Mackie HUI and JL Cooper's very competent 3000 Series. But having all Soundscape parameters controlled via Midi opens up the unit to such controllers as the Roland VM Consoles, or other such devices.

New Sonic Vistas?

Because this reviewer is a user of Soundscape you will have to excuse some of the enthusiasm shown for Mixpander, but it has been a long time coming! I prepared myself for disappointment, but thankfully the Mixpander delivers much more than I could have wished for. Soundscape's systems have always been highly prized by those who know, and I suspect with Mixpander many more heads will be turned.



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