Apogee Symphony I/O

Long-awaited not just by the user base but also by the design team behind it, Apogee's new flagship sets a few records straight and redefines what can now be expected from a convertor box. JON THORNTON ticks the boxes.

*A*pogee has a long history in the manufacture of digital audio hardware, including some classic A-D and D-A convertors, but the landscape has shifted beyond recognition since the company's founding in 1985. Recording with DAWs has become widespread and work patterns and recording locations have become increasingly diverse shifting between a full-on studio set-up with DSP accelerated DAWs to tracking a vocal on a laptop in a living room happens not only across projects, but also within projects. The Symphony I/O is Apogee's latest hardware offering, and acknowledges these shifts while taking over as the company's flagship offering for A-D and D-A conversion. This means the demise of the X-Series and Rosetta 800 Series convertors, which will sadden some, but the design approaches of these ranges have been carried forward and developed using fewer, more advanced components, leading to a shortening of the audio path and improvements in latency. Not only this, but the system is incredibly modular, allowing users to determine their exact I-O requirements, and is capable of interfacing with a computer in a variety of different ways to reflect different workflows and locations.

A first glance at the unit shows that even the industrial design seems to nod towards that changing landscape. While the X-Series and Rosetta boxes clearly signified 'studio kit', the Symphony I/O looks more like high-end hifi in its design cues, with an almost minimalist approach to user controls via two aluminium rotary encoders. Power it up, and illuminated OLED indicators and meters previously disguised by a darkened panel spring to life to let you know that it's alive and kicking. And it's safe to say that you'll never be in any doubt about the sample rate you are running at, as this is emblazoned in large numbers at the top of the display panel. A couple of ¼-inch headphone jacks and a power switch complete the picture at the front.

The rear panel is dominated by two card slots, in which you insert your choice of I-O options. Digital interfacing flavours for these cards are optical (up to 96kHz) or AES (up to 192kHz). In the case of optical I-Os, these are capable of working in SPDIF, ADAT or SMUX formats up to 96kHz (in SMUX format an additional lightpipe connection is included for input and outputs for the higher channel numbers). Balanced analogue and AES connections are provided on DB-25. There are four basic cards currently on offer, each supplying 16 channels of analogue and digital input and/or output in a different permutation. The four card variants are; 8 channels of analogue input and output + 8 channels of optical input and output; 8 channels of analogue input and output +

8 channels of AES input and output; 16 channels of analogue input only + 16 channels of optical output only; 16 channels of analogue output only + 16 channels of optical input only.

There's also a recently released (and not supplied for the review; see New Products p18) card that provides 8 channels of microphone preamplification. Installing this in conjunction with any of the analogue input options effectively routes the analogue inputs from that card to the preamps, through some assignable insert analogue insert points, and then back to the A-D section of the first card. You do, obviously, reduce the potential I-O count by going down this route (the pre card occupies a whole slot), but it's a useful option for some users.

The remainder of the rear panel provides USB, Ethernet and a couple of PC-32 connectors, together with Word clock and loop sync I-Os on BNC — and these, together with the I-O cards detailed above, provide the first clues about the unit's flexibility.

Put simply, the unit is capable of working in one of four fundamental modes, referred to as Audio Interface Modes. The first of these enables Symphony I/O to work as a USB 2.0 audio interface to any Intel Mac running OS 10.6.8 or higher. This supports 32 audio streams, giving 16 channels of input and output to any DAW that supports Core Audio. Pro Tools HD or HD Native users will probably prefer to connect in Pro Tools mode. When connected to the interface port on a Pro Tools HD card using the PC32 connector, Pro Tools sees each interface card in the Symphony chassis as a 192 interface. What's nice here is that (unlike some other third party A-D/D-A boxes), sample rate and clock source are set from the Pro Tools dialog boxes in a way familiar to all Avid users — you're not constantly having to check that the session sample rate and sample rate for the convertor are set correctly.

The only slight niggle is that the relationship between physical inputs and outputs on the I-O cards and how they are represented in Pro Tools is fixed according to the specific cards installed, and isn't intelligently recognised by Pro Tools (you just see A1-8, B1-8, etc.) Still, a quick reference to the tables in the manual and some work on the labelling in Pro Tools' I-O Setup page is all that's needed here. Multiple Symphony I/Os can be connected to an HD system, each seen as one or two 192s. The only limitation here is that you can't daisy chain them together — each unit has to have a dedicated HD card to connect to.

For those who aren't part of the Avid universe, Apogee also offers its own PCI-based solution in the form of the Symphony 64 PCI card. This is an entirely new version of the Symphony 32 card offered previously, but as the name suggests, supports 64

channels of audio input and output to a Core Audio compatible DAW. Up to two Symphony I/Os can be connected to each Symphony 64 card. Owners of Symphony 32 PCI cards will be disappointed, however, as these are not compatible, but Apogee is offering an upgrade path. Finally, the unit can be set to operate in 'standalone' mode — effectively providing A-D and D-A conversion between specific inputs and outputs.

Switching between each of these modes is accomplished with the front panel encoders (push to select parameter, turn to select option, push to confirm). The unit then reboots and starts up in the chosen mode. Selection of this and other functions via these controls is surprisingly intuitive, and not at all like the experience of trying to wallpaper your hall through your letterbox that I was expecting. But there is a level of detailed operation that even the best designed user interfaces aren't suited for and this is taken care of by the final component of the Symphony system — the Maestro application.

Maestro will be familiar to users of other Apogee products, and again runs on any Intel Mac running OS 10.6.8 or higher. It provides said level of detailed configuration with a nice graphic interface, with slightly different levels of functionality dependent on which mode the unit is operating in. Communication between the computer running Maestro and the unit is via USB for USB Audio Mode, Pro Tools HD mode and standalone mode, or directly from the Symphony 64 card in that mode.

Common to all modes are panels for configuring inputs and outputs — in particular setting and trimming operating levels for analogue and digital inputs and outputs, and setting the digital format for the optical inputs and outputs. Four, progressively more heavy-handed varieties of soft limiting are also selectable on the analogue inputs ranging from ultra-transparent catching of the odd stray over to full-on 'creative' distortion with 'Soft Crush'. If a mic preamp card is installed an additional panel is available that handles gain, phantom power, polarity reverse and a high pass filter.

There's also the ability to configure analogue hardware outputs as monitor outputs, with level control available in Maestro and from the front panel of the unit. Usefully, this can be in stereo (uses the first two outputs), 5.1 or 7.1 (uses the first six or eight analogue outputs) with a single level and mute control. Similarly, the two headphone outputs on the front panel (remember those?) can each mirror any pair of physical outputs (analogue or digital). So what you get here is a reasonably flexible monitoring system when working outside of a 'conventional' studio environment. Other options (with some variation according to the unit's mode) include the ability to select which blocks of eight inputs or outputs meter on the 15-segment meters on the front panel, the peak hold behaviour, and system settings, such as sample rate and Word clock source.

USB Audio, Symphony and Standalone mode also feature comprehensive routing matrices for

mapping physical inputs to outputs (standalone mode), or physical inputs and outputs to pairs of software inputs and outputs (Symphony and USB Audio modes, remembering that USB mode only supports 16 channels of input and output). Working in conjunction with these routing options is a software mixer page featuring two separate mixers. Each of these allows the mixing of a return path from a DAW with any of the physical inputs to create a stereo bus, which in turn appears as a source in the routing pages. So creating low latency monitoring paths if required is easy to achieve. In Pro Tools mode you get neither the routing facility (remember it's fixed) nor the mixer but latency is unlikely to be an issue in this case. An especially neat feature is that all of these settings are stored by the hardware unit for each operating mode so switching between modes automatically recalls the last settings for that mode.

It may be that I'm simply getting used to the concept, but in the past I've often become frustrated by audio interfaces that implement this additional layer of software between signal and DAW. The nice thing about Maestro is that it never seems to get in the way — you can vary between 'set and forget' or active exploitation of some of the more advanced features as the need arises.

In use, I had no real issues, successfully deploying the Symphony I/O in Pro Tools HD and USB mode. I did experience a couple of glitches when switching the unit between modes — on occasion if the Mac was still running (but Pro Tools had quit) and the unit was then switched to USB mode it would hang, and remain obstinately unresponsive until some quasi-random sequence of computer/DAW/Symphony restarts had been performed.

So, how does it sound? Suffice to say, if you're already a fan of Apogee conversion you won't be disappointed, which isn't entirely surprising given the fact that exactly the same design team that have been producing Apogee's offerings for the last 15 years are responsible for it. Such continuity isn't that commonplace, and in their own words, Symphony I/O is the interface they've been waiting for 15 years to build. A straight A/B comparison with a stock 192 I/O and the Symphony using A-D and D-A suggests that, to my ears at least, the Symphony had a little more solidity to the low end, a touch more definition on certain sound sources (triangle, shaker) and was a little less forward sounding with some vocal takes.

Of course, with today's components, comparisons between A-D and D-A convertors at a certain level starts to become ever more subjective as the baseline is already quite high and perceived differences incredibly nuanced. But with Symphony, the absolute convertor performance is only one, albeit crucial, side of the story. The other sides are the commitment to modularity, flexibility and a degree of future-proofing within the design approach. A good example of this is the Ethernet port lurking around the rear panel, which as far as I could tell serves no function at all. When I quizzed the design team about this, they replied that at the initial design stage they had been considering a future implementation of the AVB protocol for audio over Ethernet. But even in the relatively short time between design and shipping, things change. Apogee has recently pre-announced the development of a Thunderbolt based implementation, with throughputs and channel counts that should be able to satisfy the most demanding of users. And the reason it can do this is that it's not just the I-O cards that are modular. The whole Symphony design is modular from the ground up, including the chassis and digital communication side of things, thus protecting user investment in A-D/D-A cards.

In short, Symphony I/O ticks a lot of boxes. From a strictly audio perspective it performs admirably but it's also smart, flexible, customisable and intuitive in use. And as the new Apogee flagship, that will do me nicely. ■

PROS Looks; modularity and future-proofing; audio performance; can be used flexibly in a number of configurations; Maestro implementation.

CONS No backwards compatibility with Symphony 32 cards; looks; some unresolved niggles with USB mode.

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