



Focusrite Clarett

8Pre & 8PreX

Thunderbolt Audio Interfaces

Focusrite's Clarett range offers Thunderbolt connectivity and high specifications at an attractive price tag.

SAM INGLIS

Even though the protocol lacks universal support on Windows computers, more and more manufacturers are now offering audio interfaces that connect via Thunderbolt. The latest recruits to the cause are Focusrite, and with four options spanning a broad price range, their new Clarett range represents a comprehensive commitment to the technology.

There are two smaller models, the 2Pre and the 4Pre (see box), but for this review Focusrite supplied the two rackmounting members of the Clarett range: the 8Pre and the 8PreX. Both are currently Mac-only

devices, though Windows support should be available later this year.

One Over The 8Pre

In terms of I/O and features, the Clarett 8Pre adheres pretty closely to the template established some six years ago by Focusrite's Firewire-based Saffire Pro 40, and recapitulated on the USB-based Scarlett 18i20. Its eight analogue inputs can all accommodate mic- or line-level signals on their combi jack/XLR sockets; the first two, located on the front panel, can also act as high-impedance inputs for the direct connection of electric guitars and other instruments. The rear panel, meanwhile, hosts five pairs of line-level outputs on quarter-inch jacks, to go with the two independent headphone outputs on the front.

The 8Pre also boasts a reasonably comprehensive array of digital I/O. There are optical In and Out sockets supporting up to eight-channel audio transfer using the ADAT protocol, plus separate stereo coaxial S/PDIF In and Out, MIDI In and

Out, and the ubiquitous BNC word clock input.

To my eyes, the 8Pre's 1U metal front panel is more crimson than claret, but its layout is significantly cleaner and smarter than that of its Saffire or Scarlett predecessors. A black rectangular cutout area to the right of the panel hosts the main volume control, plus Mute and Dim buttons and a very clear six-segment LED array that shows levels for the main output and each of the eight analogue ins. Phantom power is available on all mic inputs, but is switched in two banks of four using front-panel buttons, while input gain is set using potentiometers. Beneath these are LEDs indicating the activity or otherwise of the new Air feature, which is engaged in software on a per-channel basis, and of which more presently.

X Partner

The flagship of the Clarett range is the 8PreX. Designed, say Focusrite, "with the permanent racked studio install in mind", it has no counterpart in the Scarlett range but shares many features with the earlier Liquid Saffire 56; the main functional difference is that the Liquid Channel preamp modelling technology used on the earlier Firewire interface has been dropped in favour of the new Air circuit.

The 8PreX occupies two rack spaces



to the 8Pre's one, despite providing exactly the same complement of analogue I/O. Its larger dimensions reflect, in part, the fact that the line and mic inputs employ separate jack and XLR sockets rather than the 8Pre's combi sockets, but also the fact that each input has its own buttons engaging phantom power, polarity reversal and high-pass filter. There are also separate front-panel jack sockets for instrument connections, though these still share the same channels as the first pair of mic/line inputs.

Where the 8PreX does surpass its sibling is in the provision of digital I/O. The word clock input is joined by an output, and there's a second pair of optical sockets, upping the 8PreX's total channel count at base sample rates to 26 inputs and 28 outputs, all of which are available simultaneously. Unlike the 8Pre, the 8PreX also gives you the ability to switch the hardware input metering to show either bank of digital inputs instead of the analogue ins. »

Focusrite Clarett 8Pre & 8PreX £720/£930

PROS

- Specifications that are unrivalled in this price bracket.
- The new Focusrite Control utility is beautifully simple and well thought out.
- Air feature provides a very usable way of livening up input signals.
- Capable of operating at very low latencies.

CONS

- Limited monitor control features.
- It's a matter of taste, but I personally would prefer stepped or digital gain controls.
- None of the Clarett units can be bus powered.
- No Thunderbolt cable supplied.

SUMMARY

Focusrite have built on their extensive experience in computer recording and high-end studio hardware to create their most impressive range of project-studio interfaces yet.



» Oh, and I should mention the stereo 'loopback' inputs, a feature introduced with the Saffire range and inherited by all the Clarett; these allow you to make available the output from stand-alone programs such as iTunes as input for recording in your DAW.

Focusrite have, alas, followed the lead of other companies in not supplying a Thunderbolt cable with either 8Pre. Quite why manufacturers think it's acceptable to sell devices costing the thick end of £1000 without the cable needed to use them I don't know, but if Zoom can bundle a cable with their very affordable TAC-2, surely the likes of Universal Audio,

Apogee and Focusrite should be able to do so with interfaces costing much more?

On the plus side, all of the Clarett interfaces ship with Focusrite's Red 2 & 3 plug-in suite, which is actually great. If Waves or UA stuck their name on these EQ and dynamics plug-ins, people would happily pay hundreds of dollars for them, so Clarett owners will rejoice in getting some seriously high-quality processors for nowt.

The Heart Of The Matter

In terms of I/O and hardware functionality, then, the new Clarett interfaces mostly stick to a tried-and-tested template, and they are none the worse for that. Where

The 8Pre's rear panel crams a lot of I/O into a small space, but still offers S/PDIF, optical I/O and word-clock out.

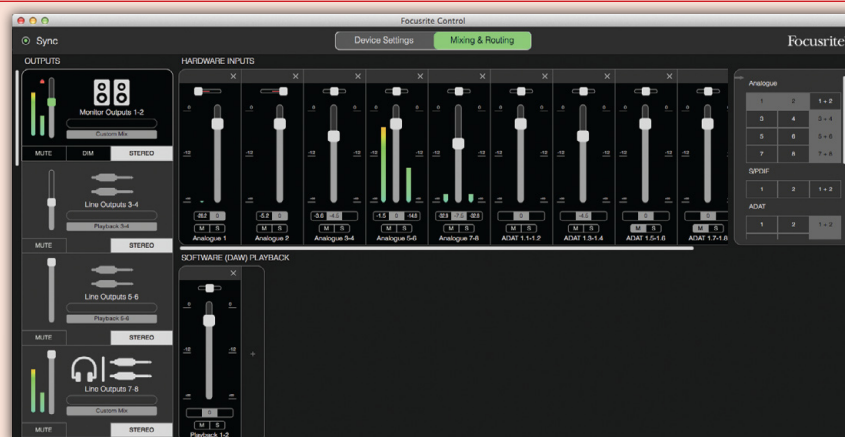
Focusrite have laid down a challenge to other manufacturers, though, is in the sound quality of these devices, which offer audio specifications previously unheard-of in this price bracket. The earlier Saffire and Scarlett interfaces were no slouches in this respect, offering a dynamic range of 109dB for the analogue inputs and 108dB for the outputs, but the Clarett's leave these figures in the dust. Dynamic range is quoted as 118dB for the microphone inputs, 116dB for the line inputs, and 119dB for the line outputs, while figures

Under Control

In some ways, the most radical change that the Clarett range introduces compared with previous Focusrite interfaces concerns the software utility used to control them. Focusrite Control is a completely new package, and unlike the earlier Saffire and Scarlett MixControl utilities, very much prioritises simplicity and ease of use over complexity. In the manner of much music software these days, it's a gloomy-looking affair, with lots of grey in evidence — but at the same time, it's also an exemplary piece of user-interface design. Focusrite's programmers have made a decisive break with the skeuomorphic 'virtual analogue mixer' graphics found in so many other control-panel utilities, and the result is a utility that's refreshingly clear, simple and intuitive.

What's perhaps most remarkable about Focusrite Control is, in the nicest possible way, how little there is to see. Each output pair can have its own cue mix, but in place of the usual endless buttons, meters, faders and pan-pots, these are formed from very simple channel 'objects' which cleverly combine all these functions in a single graphical entity. These objects can be mono or stereo, and the interface positively encourages you to hide any that aren't being used in a particular cue mix. Unlike the utilities supplied with many rival products, everything is generously proportioned, yet at the same time, it's easy to make everything visible without the need for scrolling. The upshot is a very friendly utility that quickly becomes second nature to use. Oh, and all the inputs are available to all the mixers, which is an improvement over the older Saffire MixControl utility.

However, it should be pointed out that this beautiful simplicity has been achieved partly by not including features that are available on some competing products. There is no provision at all for processing audio signals within Focusrite



Control, so no equalisation, dynamics, or delay/reverb effects are available. This is clearly a conscious decision on Focusrite's part: like Apogee, they believe that their Thunderbolt hardware is capable of such low-latency operation as to render the need for a separate cue-mixing utility redundant in most situations. It's a decision that is fine with me, but then I rarely find myself having the time to set up processing and effects specifically for the cue mix in any case.

More restrictive, to my mind, are the limitations of the monitor-control functionality. The 8Pre and the 8PreX have identical front-panel controls relating to monitoring, comprising an assignable rotary level control plus Mute and Dim buttons. These can be disabled completely, or configured to adjust the output level of analogue output pairs 1-2, 1-4, 1-6 or 1-10. This provides a reasonable amount of flexibility — you could, for instance, control a 5.1 speaker system connected to outputs 1-6 — but there's no provision to set up talkback, nor any way of switching between two sets of

speakers. Focusrite Control also lacks Saffire MixControl's software Mono and L/R Mute buttons, which I use all the time on my Saffire Pro 40. Sure, you can replicate their functions within your DAW, but it's more useful to have them implemented within the control panel utility, as this allows you to apply them to other software applications too, and eliminates the risk of accidentally bouncing out a mix in mono.

Everyone's preferences will vary, no doubt, but to me, it would enhance the flexibility of the Clarett interfaces if the Dim control were replaced with an assignable button that could be made to perform monitor switching, put the outputs into mono, engage talkback and so on. As it stands, I think quite a few Clarett 8Pre or 8PreX users will feel the need to buy an additional monitor controller, something which should perhaps be borne in mind if you are comparing Focusrite's interfaces with more expensive products such as Apogee's Ensemble Thunderbolt, which has much more comprehensive monitor-control features built in.

» for THD+Noise and EIN are equally impressive. These figures comfortably better most mid-priced USB and Firewire interfaces, and approach fairly closely the performance of high-end interfaces costing two to three times as much from the likes of Universal Audio and Apogee.

Focusrite have also designed a new mic preamp circuit for the Clarett range, the most notable feature of which is the Air option. This is "modelled on" the Air mode in Focusrite's ISA430 MkII input channel, and although it's switched in software, actually changes the behaviour of the circuit in the analogue domain. A representative of the company told me: "Air mode is an impedance change in the mic pre from 6.2 to 2.1 kΩ in combination with a frequency response change through the use of an analogue

basis) produces a pronounced treble lift which is very obvious on pretty much any source, even line-level signals and other things that shouldn't be at all sensitive to input impedance. It's a rather sweet and seductive sound which often mimics what you might want to do with EQ in any case. If I owned a Clarett I'd be tempted to use the Air setting all the time, though I suspect that there might be circumstances where, like the high-end sizzle that gives some capacitor mics instant appeal, it actually proves counter-productive further down the line. It's perhaps a shame that it's not variable, as it does make rather a drastic difference to the sound.

Without Air engaged, the preamps are commendably clear and neutral, though I could wish for a more precise means of

Alternatives

Most of the Thunderbolt interfaces available at present are more upmarket devices than the 8Pre and 8PreX, but a possible competitor for the latter might be **MOTU's 8M**, which offers a similar complement of I/O, with the plus of USB and Ethernet connections as alternatives to Thunderbolt.

Focusrite's decision to keep their new control-panel utility simple: if you do need to set up complex cue mixes with effects and processing, there's really no penalty for doing so within your DAW with this sort of low-latency operation available.

All In All

The Clarett range represents the next evolutionary stage in a family that began with the Saffire and later begat the Scarletts. Focusrite haven't fixed anything



The 8PreX's rear panel is more spacious than the 8Pre's and adds additional optical ports and a word-clock input.

filter which provides a 4dB boost starting from around 100Hz, reaching +4dB around 10kHz, all of which happens before the A-D conversion."

My own ISA828 preamp has switchable input impedance, and in my experience the effect this has is rarely profound and often inaudible. I was expecting the Air option to be similarly subtle, but it really isn't! Switching the Air circuit in (which can be done on a per-channel

setting gain levels than potentiometers with a scale labelled simply zero to 10. For stereo recording in particular, stepped or digital gain controls are invaluable: they might be more expensive to implement, but I feel the 8PreX at least occupies a price bracket where it wouldn't be unreasonable to expect something along these lines. There might also be circumstances where the lack of any pads could be an issue, but the 57dB gain range on offer should accommodate nearly all input signals without too much trouble.

Many of the manufacturers who have adopted Thunderbolt as a connection protocol cite its potential for very low-latency operation as a key advantage, and Focusrite are no exception. Under Mac OS, the Clarett interfaces offer buffer settings down to 32 samples, and although the performance meters in Pro Tools and other applications suggested a higher CPU load at this setting compared with more conservative options, the additional burden was not a problem in practice. On my MacBook Air I had no problems either tracking or mixing at the smallest buffer size, with a round-trip latency of less than 4ms at 44.1kHz. To me, this fully justifies

that wasn't broken, so the form factor and selection of I/O on offer in the Clarett interfaces is largely unchanged from their predecessors. Instead, they've turbo-charged the audio specifications of the new units, achieving a near 10dB improvement in dynamic range both on the input and output side compared with the Saffire interfaces. They've also put in the hard yards on the software side of things, delivering impressive low-latency operation and an entirely new control panel utility which is a model of elegance. The result is a range of interfaces that offers unparalleled performance within its price range, yet feels fully mature. As yet, there's relatively little competition from other Thunderbolt interfaces within this mid-priced project-studio bracket, and it will be very interesting to see how other manufacturers respond to the challenge laid down by the Clarett. ■■■

Just A Tittle

The two smaller Clarett's are half-rack, desktop devices. As their names suggest, the 2Pre (£359.99) and 4Pre (£499.99) offer two and four mic preamps respectively, plus monitor control features, MIDI In and Out, and four line outputs. Both are also expandable, courtesy of a single eight-channel optical ADAT digital input, while the Clarett 4Pre boasts two headphone outputs to the 2Pre's one, along with four dedicated line inputs and coaxial S/PDIF digital I/O. Both also require external power supplies: bus powering is not supported.

E 8Pre X £929.99, 8Pre £719.99.
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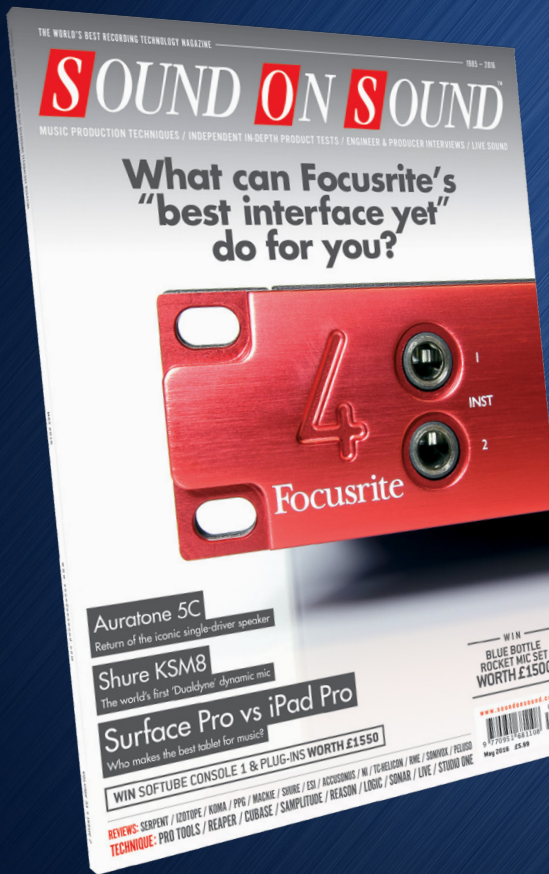


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