Rob Jenkins

He's had a guiding hand in the development of Focusrite's Blue, Red, Green and Platinum boxes plus the new analogue/digital hybrid Liquid. Focusrite's director of product strategy talks sound, the new against the old, customer expectations, and the freedom to do Jazz Odyssey.

ZENON SCHOEPE

BORN IN MANCHESTER IN 1966, Rob Jenkins blames his parents for moving him at the age of seven from this 'centre of the universe' to its periphery — Barrow-in-Furness — thereby scuppering his chances of rock 'n' roll fame. He started work at 17 as an engineer in the local shipyard working on nuclear submarines as a way to pay for his guitar and portastudio habit and spent many hours reading Home Studio and Recording and picking up tips.

After a few years as a frustrated musician and amateur recording engineer he moved to London in 1985 to become a real sound engineer. London was at the time in the middle of a heavy metal revival and he says he spent most of his time drinking Thunderbird wine and brushing amorous lead vocalists and their girlfriends off the console so he could attempt to mix their bombastic output. Meanwhile, ironically, all the real action was back in Manchester.

He became disillusioned with his life as a soundman and joined the Focusrite team in 1989. During his time there he has been involved in the development of the Focusrite Studio console and the ISA, Red, Green and Platinum ranges. His title is director of product strategy but what he says he really does is 'look at what is going to make a great product and make sure that the original vision stays true right to the point that we deliver to the customer. Above all else I make sure that what we make sounds good.'

Under his charge he has a group of young software engineers and a group of 'not so young' hardware engineers who work together as an interactive team to deliver product ideas to an ever more demanding public.

What is special about the technology of Focusrite equipment?

To our customers the Focusrite technology is special because it has a sound. My team's number one priority is always to design for sound and no matter what we happen to be working on at a particular moment in time there will already exist a clear idea of what we want that design to sound like. What makes the actual technology in the equipment special is the uniqueness of the Focusrite designs; my approach has always been to do things our own way and to find the technology to make it happen. If we have a design that cannot be realised because the only commercially available components do not meet the design requirement then we work with the component suppliers to redesign them. Over the years we have designed our own unique transformers, opto-resistors, voltage-controlled-amplifiers, whatever is required to get to where we want to be with the sound. When a customer buys a Focusrite there will always be something in that unit that the customer will not be able to get from anybody else. Finally the big one, Liquid technology is special in terms of its ground breaking hardware and software design, it is truly a unique hybrid of analogue and digital technology. We have a mic pre that can change its interface and input impedance against frequency curves at an analogue level and then process the audio at a digital level as if it had passed through a valve or solid state amplifier. That is pretty special.

How much of the original Focusrite Forté console technology was handed over to the Focusrite outboard range and how much of it still exists inside the units?

The original mic pre, EQ and dynamics units already existed in the form of special rackmounting vertical units called the ISA series well before the first console, the ISA units first appeared around 1984. The circuits from these early ISA units were then used as the starting point for the console design so it is true to say that the outboard units and consoles are the same thing. The present ISA and Red range units are all designed using these original circuits, so when you listen to a Focusrite 430 MkII channel strip or a 428 mic pre you are hearing exactly the same thing as if you were using that original console.

What differentiates the Blue, Red and Platinum series products from a technological standpoint?

The ISA and Reds are all the same thing in terms of tried and tested technology with transformer mic pres and solid state compressors and EQs making up the circuit blocks, the difference is really in the functionality. The ISA series is about providing the console recording experience in a 19-inch package

with a digital output to connect direct to the DAW. The Red series is really breaking up those console blocks and about providing specific mic pres, compressors and EQs as individual units. The Platinum series technology is all about finding the best performing and best sounding circuit that delivers a function to the customer, from the start of the design process we make a decision to design using only components that have a sonic fingerprint. For example the Platinum series mic pre uses discrete transistors configured to create plenty of second-order distortion and the compressors use opto-resistors to get very clean but vintage sounding compression that will outperform solid state circuits of similar value every time.

When designing a new unit do you start from scratch or do you take a 'building blocks' approach and improve them?

We do a bit of both. For example, when we design a new ISA product we are always aware of the fact that there will be a very real expectation in the mind of customers that the units should recreate any previous experience they may have had with an ISA unit. So I never do anything to change the fundamental sound of the original ISA blocks, however, I do extend their functionality where there is an opportunity for adding something new and of real value. For example, the new ISA430 MkII and the ISA428 designs include switched impedance values as a way of creating new sounds with an established design. The customer therefore has the option of trying something new while having the comfort of knowing they can always go back to the sound they know and love from the original ISA unit.

On the other hand the Liquid design approach would be 'starting from scratch' personified, there were no building blocks to start from, it was a case of taking an idea and looking for a solution to deliver it. When I started the design process I imagined a purely digital system that after testing proved to be inadequate in itself to deliver the complete solution. It was only with the realisation that the microphone to mic pre relationship was a dominant factor that the actual design approach we see today became real and the hybrid analogue digital solution was developed.

What are the compromises that analogue outboard designers are tempted to make and what are the 'pressures' that they are under?

The pressures that face audio designers are the same pressures that face any designer in a fast moving and mature industry, we have to add value where it counts to our customer without adding cost. At Focusrite we don't make the kind of design compromises where our customer has to accept a reduction in unit quality for a lower unit price, we just don't see the relationship with our customer in those terms. Our approach is to identify the elements of a unit's functionality that are of the greatest value to the customer and we find the best solution that delivers that functionality at a quality level that meets our customers' expectations. If you look at the general trend of the market there is a pressure to do more for less, and there are those companies that have a different relationship with their customers and are prepared to produce products that flatter to deceive. The best examples in this flattery category would be the plethora of 'me too and more' boxes and those tube products where the only purpose of the thermionic valve appears to be in lighting up the front panel.

So I would say the greatest temptation is to try to dress mutton up as lamb. At Focusrite there have been

there is an exception — some of those old Cambridge Neve units have the best transformers ever made in them! So it is no coincidence that it just so happens that the Liquid transformers are made at the same factory where those old Neve transformers were made.

What have you learnt in your development of the Liquid about precisely what it is that makes classic preamps and dynamics so appealing to end-users?

These classic units are so appealing because they have a personality locked inside them, that personality is partly due to the decisions made by the original designer and partly due to the limitations of the technology available during the era of the design. We forgive these classic designs for their shortcomings and celebrate their quirks and unique sound shaping qualities because they simply do things that new designs do not do. I think it is fair to say that Focusrite now has the greatest database of mic pre and compressor performance characteristics in the world at its disposal and the thing that has surprised me the most is the vast number of performance variables we have revealed during our research.

The classic compressor has proven to be a much more complex thing than we ever imagined with every single unit producing unique data for ratio curves, attack and release times and envelope shapes. Without exactly recreating this level of complexity one compressor sounds pretty much like any another.

Focusrite has a strong analogue heritage, how much better can analogue get?

With the Liquid technology Focusrite has proven that some solutions still need to be analogue and that there are new analogue circuits still to be invented in this world. I also believe our senses will always be interfaced to an analogue environment so when digital technology has become accurately non-linear and when the point of conversion has infinite dynamics, then digital will have travelled full circle back to analogue and digital will be the new analogue! ◼

times when we have simply decided not to do certain products because we didn't see the value that we could offer the customer.

I've always been surprised that Platinum units tend to have the most innovative new features. What is the logic to this?

I guess until Liquid appeared that was probably true, at the end of the day its all about expectations. If I may use a Spinal Tap analogy, designing an ISA unit is a bit like playing a greatest hits set for a festival crowd, I don't tend to mess with the formulae too much, whereas designing a Platinum unit gives me the freedom to do 'Jazz Odyssey'. The other motivation for innovation when designing Platinum units is trying to find ways to make the sound generation possibilities more immediate because we expect the recording environment of the Platinum customer to be very different to that of the ISA user.

Until the arrival of Liquid, Focusrite's involvement in digital in outboard units was restricted to digital interface cards. Why didn't Focusrite produce a digital piece of outboard sooner and how was the Liquid combination arrived at?

I feel the Focusrite digital strategy has been a very successful one purely because we decided very early on to focus our attention upon the DAW market and specifically Pro Tools rather than on outboard solutions. Digital processor hardware never really made any sense to us. Focusrite products are mainly used for high quality recording and so digital processing technology never really seemed to offer any significant benefit to the customer. Focusrite got into the plug-in thing very early on with the release of the D2 and D3, which very quickly became the standard for EQ and compression on most major Pro Tools rigs around the world. Now we have the next generation ISA plug called the Forté while

also finding time to develop the Mbox and C24 and C8 control surfaces for Digidesign. So these days our natural place is very much as a part of the modern DAW environment even if we may still be perceived as a purely analogue company. In terms of digital outboard, the Liquid channel, however, is an exception in that it is a piece of dedicated recording equipment that is impossible to recreate as a plug-in. The need for unique analogue and digital processing to recreate the complexities found within classic mic pres and compressors defines this product as a piece of hardware.

The upgradable and updateable approach of the Liquid does sort of suggest that a wide range of similar hybrid units will not be forthcoming. Where can you go with this technology in future products?

As far as the Liquid channel is concerned we have a very flexible platform that covers the mono and multichannel recording market perfectly right out of gate so it would be true to say that there is probably no need for a Mark Two for some time to come. However, my team is currently working on other multichannel recording and mixdown solutions and I envisage those products in both rackmount and desktop formats. The future for this product is to provide a totally flexible and variable multichannel mic pre, compressor and EQ solution for the DAW user at recording and mixdown stages.

In absolute terms, are modern mic preamps genuinely better performers than some of the best-loved 'classic' devices?

It is undoubtedly true that modern mic pre designers have access to components that are far superior to anything available in the past, it is now possible to design a mic pre that is the sonic equivalent of a piece of wire. In terms of distortion, frequency response and gain bandwidth modern designs win hands down in most cases, though