

 UNITED KINGDOM



Francis Duggan and Joe Bull, outside the Cambridgeshire HQ

Black and Blue and found all over

JoeCo has launched a new digital recorder, the Bluebox. **Dave Robinson** talks to the company's founder, and his rising star colleague, about a colourful future

Joe Bull: a familiar name and face from the UK-based DAW community of the last couple of decades. Long before he formed JoeCo Bull was an essential cog in the SADiE development machine – but that tale is for another time. The engineer and businessman parted company with SADiE around the time the business was sold to Prism, so he could create a brand in his own image.

With his nascent JoeCo operation, Bull began working on designs for his multichannel recorder, the 'Blackbox', in 2008: the original BlackBox Recorder was shown at the NAMM show in 2009, and working models shipped a few months after that.

"The first unit was an unbalanced analogue unit (the BBR1U), for plugging across unbalanced inputs on old analogue consoles. We then got asked to do balanced analogue, for the US market mainly; then they wanted an AES version, an ADAT version... Soon it was obvious that there was a huge need for a MADI recorder that was as simple as the Blackbox." That meant recording on 64 channels simultaneously rather than 24. "We did some research and realised that if we tweaked that, and changed this, a simple- to- use MADI recorder was a very achievable product with our technology."

This was 2011. "It was at the same time that I first started talking with the guys at Audinate about

Dante," he continues. The now-ubiquitous networking technology was still in its infancy back then. "I realised that because the requirement for MADI and Dante were going to be pretty similar, what we tried to do was try to combine the R&D efforts for both products at the same time, so we could bring them out [almost simultaneously]."

Bull reckons JoeCo was probably about the tenth company to implement the Dante protocol: the Australian company reported its 350th adopter at the ISE show. "They were the first company who were designing [for] pro-audio over IP who really understood the importance of clocking. If the master clock fails, then you've always got something that can take over like that," he says, clicking his fingers. "Dante always seemed to have a professional approach, so you don't lose anything if the audio clocking goes."

For the unfamiliar, the function of the Blackbox Recorder is to capture multichannel audio in the live environment. Simple as that. The basic 24-channel unit works up to 96kHz, across all channels. "It isn't an overdubbing recorder, it's not a replacement for a Studer A800," emphasises Bull. "It's designed specifically for live applications, [where] all of the channels go into record simultaneously. There's no onboard storage: the rationale being, just as Studer

never supplied built-in tape, you need your own a hard drive or memory stick." To illustrate what's possible here: Bull reports that on MADI BBRs, the maximum data writing rate is 74Mbps per second. USB 2.0 has a bandwidth of 480Mbps per second as standard: so there's no danger of buffering here.

Bull's reference to Studer and recording on tape is particularly relevant. "Provided you had a 24-track 2-inch tape machine, and you could line it up, you could play it anywhere in the world," he notes – something he learned from his early, pre-SADiE years at SpaceWard Studios. Hence, it was Bull and audio engineer Mark Yonge who campaigned vigorously to establish a high-quality, transferrable file format for use across all DAWs and similar devices. That format, Broadcast WAV (BWF or BWAV) was established in the late 90s and adopted by standards bodies such as the AES not long afterwards. The format was implemented in SADiE systems, and many rival DAW manufacturers, convinced of BWFs effectiveness and convenience, followed suit soon after.

"So when I came to establish JoeCo, that was a critical thing: the recorder's got to be able to record BWFs so it can be played back on anybody's system."

Bull's 'universal format' approach has no doubt aided the success of BBR sales. Total units shifted, in

all formats, is somewhere between 1,000 and 10,000, he suggests. A lot of JoeCo's clients are reluctant to promote the devices; Bull lets slip that a 'world-renowned Utah-based singing ensemble' bought 10 units five years ago, and forbade him to mention the sale. "Then DiGiCo published a story about them, and our Blackboxes were all over the pictures, so I guess it's OK now..."

JoeCo has also seen an increase in sales of the multichannel playback version – the Blackbox Player, which takes the form a software update for existing BBR units. It's good for museums, theme parks and the like, but useful in particular for bands/performers who require some 'live assist' (whisper it: backing tracks) to bolster their sound. Other places you may have spotted a Blackbox or two in the rack include the Jimmy Fallon show in the US, the World Cup stadia in Brazil, at the Sochi Olympics, even on the BBC's Bake-Off.

All in all, then the penetration and reputation of the BBR has given the company enough profile and a broad enough user-base to push forward with its latest launch – the Bluebox.

This evolution from the original device was proposed by Joe Bull's colleague Francis Duggan. The 28-year-old has been primarily involved with production management, R&D and demoing the gear at trade shows for three or four years – but will be taking on a more strategic role in future.

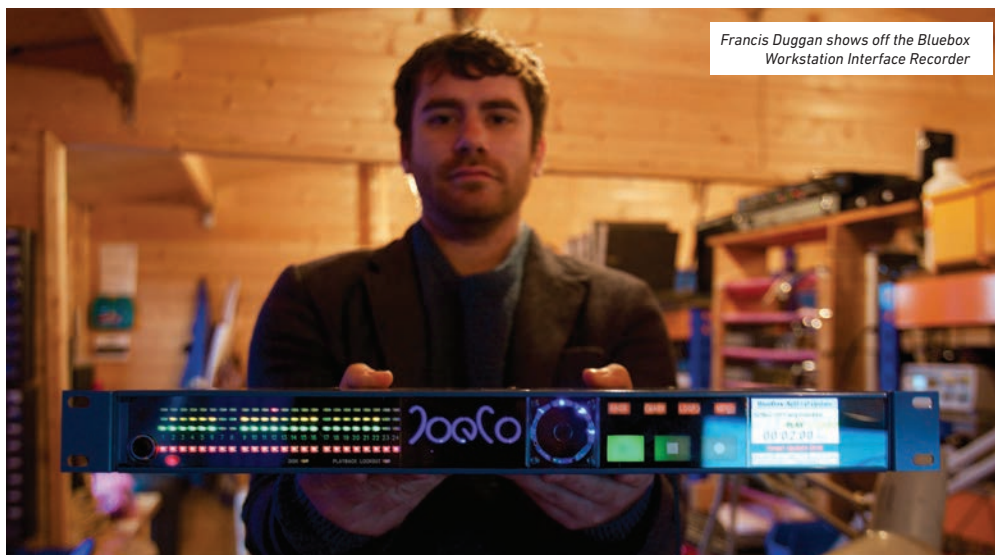
"Customers have said in the past, it would be good to have products that could be used as an audio interface in the studio," explains Duggan. "A lot of the people who use our gear go out and record a band or choir, then bring it back to the studio. And now Bluebox can be used in that studio environment."

The fundamental difference between the Black and the Blue, as it were, is that the latter can be used as an audio interfacing device in a studio environment, as well as a recorder – so it can connect up to your DAW. A back-up feature means "you can press record at the start of the day and just forget about it".

Bluebox started shipping around IBC time last year: the flagship model, with 24 channels of mic-pre, is around £4k ("Because its got 24 channels of mic-pres, and decent mic-pres aren't cheap.")

Then at NAMM, JoeCo launched the BBWR24B – a more affordable version of the unit without the integrated mic-pres (£1,300-1,400). Bluebox represents a new chapter for the company, agree the pair.

"Our bestselling product throughout history has been the BBR1B – the balanced analogue version of Blackbox – so we're viewing this as the next step for Bluebox. It's got things like ADAT compatibility and word clock; it's a thoroughly professional solution but at a price point where semi-pros can start to enter the JoeCo ecosystem." That's how the company is planning to – and, more importantly, beginning to – grow: pushing into new markets but keeping the same principles of quality and attention to detail.



Francis Duggan shows off the Bluebox Workstation Interface Recorder

To that end JoeCo products are built offsite, but rigorous design and testing is undertaken at JoeCo HQ, a workshop and office located outside Cambridge.

All those expensive pre-amps, for instance, are bespoke to JoeCo. "We've been designing analogue electronics for about 35 years, so we know a thing or two about it!" he laughs.

Bull calls on his development diaspora here, old collaborators from the SADiE days: 'Daff' (Simon Widdowson) in Cambridge, and the Sintefex software team (whose designs have been adopted by the like of Focusrite in the past) in Portugal.

"In terms of electrical and mechanical design I'll have the overall idea of what we want the product to do – we'll then discuss it as a group – I'll do the mechanical design and the circuit board layouts. Daff does all the detailed electronic stuff, then from Portugal we'll have the latest version of the software so we can pull the whole thing together.

"For the build etc, we subcontract it out. It's all to UK companies: I've looked at using overseas subcontractors but I don't, a), for the numbers we're making, b), I'd rather keep the jobs in this country." Many of the subcontractors are local if a meeting is required anyway, he adds.

Meanwhile, Duggan will be taking on a bigger role at the company, developing current sales partners while addressing territories where sales have been small to negligible. "I'm taking a look around the world and building relationships with our current sales partners, helping them to improve their sales, while looking for new partners," says Duggan. In terms of territories, the USA has been the most successful, through Full Scale AV, responsible for around 35-40% of total sales.

There's still work to do in Europe, and "though we have some partners in Asia, we have a lot to do over there too," says Bull. "The UK is good for us too, but it's a home market."

A politics graduate, Duggan also has practical interests in DJing and recording bands, both live and

in his home studio. "I knew the industry relatively well before I came to JoeCo," he states.

For 2017 and on, then, JoeCo is expanding its horizons: exploring new possibilities with a proven track record (no pun intended) and, dare we say it, a certain swagger.

With Duggan shifting his involvement up a gear too, and more surprises in store, the future for Joe Bull is not just Black and Blue: it's very, very bright too. ■

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DO WE NEED ANOTHER RECORDER?



Duggan and Bull share a joke

PSNE: There are critics who say, we don't need your stuff, because there are certain onboard/system-compatible recording technologies available already: Pro Tools and the like. Ultimately, does that not worry you?

JB: We've seen that all the way along. Some of the manufacturers are pouring, ooh, tens of pounds into their systems [laughs].

PSNE: You haven't spotted anything that's an immediate threat?

JB: There's always a threat. People will always plug things in to their laptops and be happy with a cheap solution, right up to the point it falls over. Which it always does. That's when Bluebox comes in!