BRIT ROAD

Phil Ward heads backstage to meet the crew bringing Robbie Williams' latest high-energy pop spectacle to life . . .

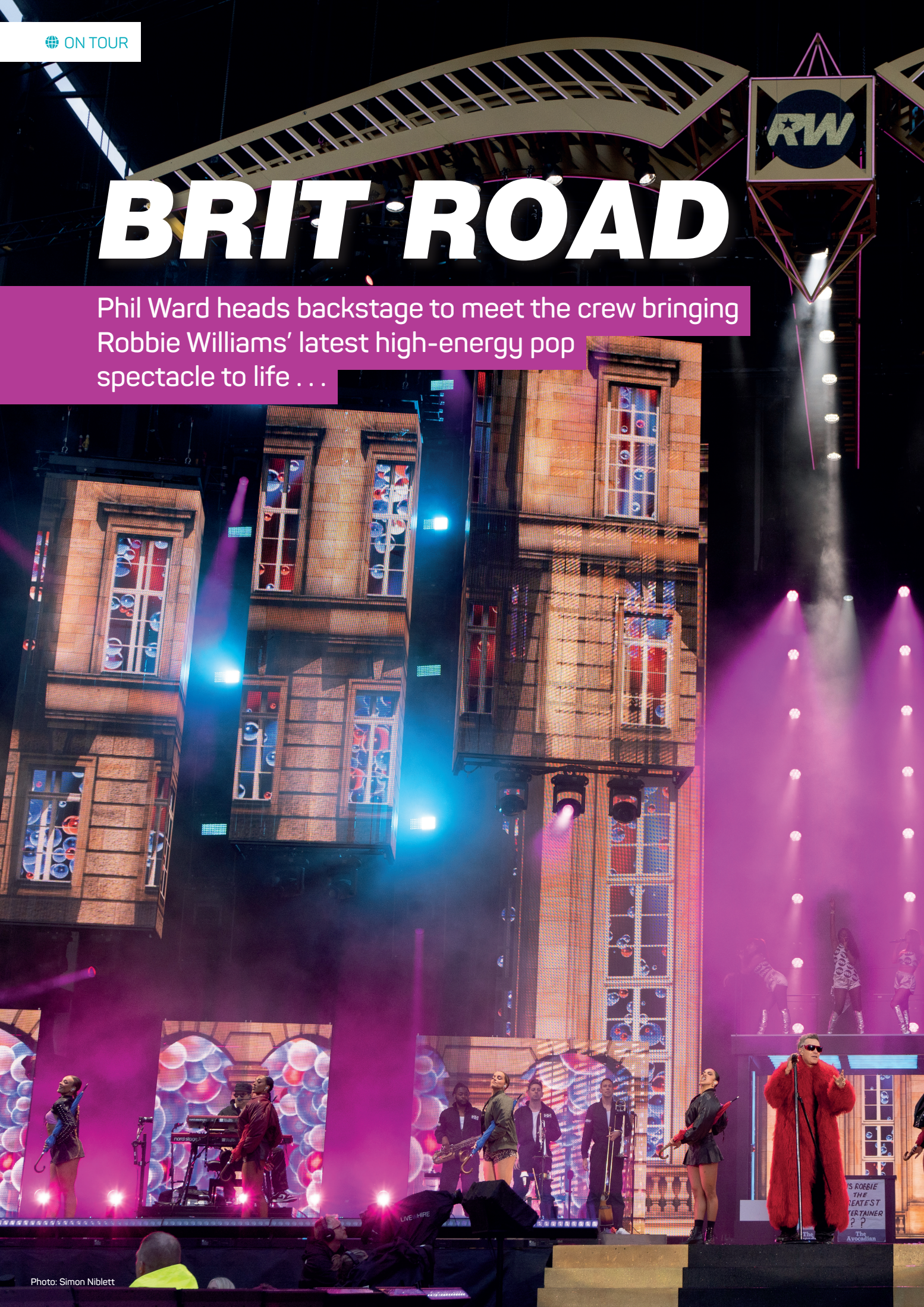


Photo: Simon Niblett

This may be Pop Art, but you don't expect to see Spider-Man. Stage left, behind the gigantic wall of ROE Visual Vanish8 Touring panels . . . there he was, dangling upside down in mid-air, then stuck fleetingly to one point and suddenly at another, fighting crime. What? Oh, turns out it was Oscar Winter, LED tech for Universal Pixels, replacing one of the panels. Should have known - although with so much Spidey dynamism locomoting through the show, you could be forgiven . . .

Everything points to a vision of Robbie Williams as a comic book super-hero, supporting his often-animated personae and always animated personality. He arrives on a rocket, eventually, trapezes down to the stage and launches into the hits - although, it should be pointed out, the tracksuit brings him down to Earth more than anything else. He may exude cartoon, but he's always approachable.

FRONT LOADED

And when Robbie's winning, production swings. From staging to lights, video and audio, there is all the electro-mechanical precision of a West End stage, just on a much greater scale and with more swearing. There is even a show caller, on everybody's comms and commanding split-second timing. This would not be possible without a highly integrated AV ecosystem, and to Universal Pixels we can add Lite Alternative, Britannia Row and more in the rollcall of expert suppliers.

All of which is invisibly underpinned by steely audio, mixed at front-of-house by Joe Harling, who has been touring with Robbie Williams since September 2022. A self-effacing Harling diverts a lot of credit to either system engineer Ville Kauhanen or musical director Karl Brazil, and it's true that it has been nothing if not a team effort to specify, tune and deliver a FOH system built around d&b audiotechnik's GSL and KSL line array modules. But Harling has had a very specific wish granted.

"I got what I wanted," he says. "I love d&b. It's the best all-in-one solution, including the DSP and the amplifiers. The GSL and KSL boxes sound amazing with ArrayProcessing [the optional software function within the d&b ArrayCalc simulation software]. But mainly it's about having Ville Kauhanen [of Clair Global] as my system engineer . . . he's the best in the world. I worked with him on tours with Tears For Fears and Keane, but he's been doing Taylor Swift for the last three years - really at the top of his game. And he normally uses d&b! That's always my first choice, too.

"It's very musical, very linear . . . and, also, because of the ArrayProcessing, we don't need ring delays in the stadiums. That saves loads of money and loads of time." ArrayProcessing enables an even coverage along the plane of the arena, ensuring full and rich dispersion at the highest tiers. This makes the most of the following stereo configuration: GSL8 mains, 18 per side; GSL8 sides, 18 per side; flown SL-SUBs, nine per side; KSL8s at 180°, 12 each side; main delay hangs of KSL8, six per side; upstage delay hangs of KSL8, 14 per side; upstage delay hangs of KSL8, 14 per side; more SL SUBs on the floor, six per side; and Y10P front-fills, seven per side. All amplifiers are D80s, while all system optimisation is done within the amplifiers and all signal matrixing with DirectOut's Prodigy.MP Multifunction Audio Processors.

Photo: Simon Niblett

The *Britpop Tour* is Williams' 14th, coinciding with his 13th studio album, also called *Britpop*. He was last out on the *XXV Tour* across 2022 and 2023, but not since the *Heavy Entertainment Show* of 2017-18 has the entourage encountered mainly stadiums, arenas and other outdoor venues. This tour began in Edinburgh on 31 May and is currently due to end in Istanbul on 7 October.

Regardless of the locale, the live sound is being produced, in the correct sense of the word, with more of the quality of recorded sound than ever before - meaning an increasingly creative role at FOH. Is this an industry-wide paradigm?

"Yes, there's something to be said for that," Harling agrees. "It's mainly the PA systems, I think. The loudspeakers are undeniably the one thing where newer is better, along with the science behind the optimisation of the PA in the context of each setting. That's come a long way. At FOH, you're kind of everything: tracking engineer; mixing engineer; mastering engineer . . . and a kind of producer.

"Most of my musical conversations take place with Karl [Brazil, drummer and musical director]. We're not really trying to reproduce the sound of any of the records in this gig, not least because the arrangements differ - as does the instrumentation. It's a lot more of a full-on rock performance, especially the earlier material from the first record."

OLD BEFORE I D-I

The music lives again in its new context, but importantly the options are there to shape it into whatever feels right today. "The production and the mix of the records is very much of its time, which kind of sits back a bit," Harling continues. "But live, it's much more forward and in your face. The sound is mostly updated by the instrumentation and how I react to that, with me the second link in that chain. If what's coming at you is very different from the record, it kind of naturally demands an updated mix, or at least a different mix. Karl is the leading interpreter of the music and motivator of change, but he trusts me implicitly, which is really nice.

"From day one of rehearsals, I'm sending mixes to people, especially Karl, and we hit the ground running. We have to. But mostly he leaves me to take care of it."

The console is a DiGiCo Quantum 338. "This suits my needs," says Harling. "I had to do a few workarounds to fit the show into it, but I really like it - especially the screens. The Quantum 7 had more channels, but this is great. It has the Spice Rack but I'm always using third-party plug-ins - and lots of outboard."

Indeed. Adding to the impression of a studio on tour, a quick spin round reveals a mouthwatering rack of classic analogue signal processing, perhaps surprising in the context of a modern pop tour. But then you remember that this is called the *Britpop Tour*, and one thing that characterised that era was the re-emergence of what were already called vintage sounds in the face of rapid digitisation of everything else. Just as the music celebrated a bygone era of tube tones, reproduction on stage and in the studio followed suit - even though the expanding menu of plug-ins claimed to offer more ergonomic alternatives.

Accordingly, Harling has a treasure trove at FOH of which he is justifiably proud - but he also has Fourier Audio's new transform.engine for good measure . . . "It has all the VST plug-ins," he says, "and I'm running a lot of effects through it - reverbs, delays, pitch-shifters and so on - and I'm also doing a decent amount of dynamic processing on it. That applies to individual drum groups, like kicks, snares and toms, but also vocals. It covers the many inputs that need time-based effects, and the basic utilities you need on 12 open mics, for example.

"The reverb plug-ins are amazing, nowadays. Last time out I had some hardware reverb units, which sounded great, but having to transfer your presets between A-rigs and B-rigs was a pain. This is so easy.

"The hardware outboard is mainly for colour, for saturation. The biggest thing in live sound these days is that we have these super-clean desks and super-clean PAs, and there is nothing that inherently reduces the crest factor between peak and RMS.

Photo: Simon Niblett

So, all this outboard is really about adding saturation and colour to create more of a solid block of audio that sounds like music. You never used to have that difference between transient and sustain on, for example, drums, from an analogue desk.

"Therefore, the UBK Fatso I'm using [based on the original Fatso compressor by Empirical Labs] is essentially for saturation on the drum buss, followed, also on the drum buss, by the Overstayer Stereo Compressor which is in the style of the old Urei 1178. Similarly, the bass guitar has a SansAmp RBI Bass Preamp, and another UBK Fatso. Robbie's vocal goes through the other channel of the UBK Fatso, which just catches the peaks, and then it goes into a Tube-Tech."

TAPE THAT

There's more . . . "There are four Rupert Neve Designs 542 Tape Emulators: two of those are on the horn group; two are on the piano group. The WesAudio Dione is an SSL-style buss compressor which I use on my BVs; the AudioScape AS78 Dual Peak Limiter is another 1178-style compressor, which is on the piano; and my master buss firstly goes into an Overstayer M-A-S, basically a saturation unit, and then into the best buss compressor I know - the Vertigo Sound VSC-3, which is super-clean and super-transparent."

And that's not to mention the Terry Audio SEQ: "It's a unique - and boutique - mastering EQ for amazingly broad-band colour, really nice. It looks like a lot, but quite a lot of them are in series for the same thing and not addressing that many inserts on the desk."

These are the luxury, nuance-laden tools of the sluttiest recording engineer, often in modernised versions but still eliciting the kind of palettes that would make Mark Rothko swap his brush for a Quantum 338. And moving this amount of signal in and out of the swimming pools of analogue processing and back to the dry land of digital routing demands a special kind of help - and Harling has just the thing.

"This DAD AX64 [the latest modular multi-format audio interface with eight audio I/O card slots from the established AX32 and Penta product family] is the hub of my gig," Harling confirms. "It's taking 128 channels to Pro Tools for recording; 64 channels at 96kHz of conversion from MADI to Dante into the Fourier transform.engine; it's doing all my analogue I/O . . . it's an absolute powerhouse - and sounds amazing."

Pro Tools provides the virtual soundcheck, of course, as well as archiving, and Harling will tend to use the previous night's recording as a starting point, especially if he has the bonus of being in the same venue. "Working with a systems engineer means I can go straight to virtual soundcheck, and I don't need any other music to play through the system. The archive is important, too, as well as remixing selected songs for the social media outreach, which usually goes out the next day.

"I don't really change the mix to fit the room, as little as possible, anyway. I'm lucky that I'm working with Ville, a system engineer that I trust implicitly, which means that once the system's up, it's ready to go. You have to have the discipline not to change too much in an empty stadium and wait until there are people in place."

How exactly does Kauhanen prepare the ground? "He designs the PA for the space, optimises it and makes sure everything is time-aligned and tonally matched, and this essentially means that it will sound the same as it did in the last venue. This is a stadium tour, so acoustically there are variations but on a similar generic model. I try not to change the mix for reasons of acoustics, although I do have a system EQ across my PA outputs in case there is anything sticking out because of the room on that day. I can pull that down, but I'm not going to go searching around in my mix for that, normally. Things can develop, but on the whole, thanks to Ville, it's nailed down."

This leaves Harling free to apply his new interpretation of Robbie Williams' music almost as though it were a new record - and, in the literal sense, it is: this is how these songs sound today, according to the Brazil/Harling/Kauhanen 'production', where that word means an intimate consanguinity of aesthetic priorities and technical necessities. In this Robbie Williams sonic campaign, these guys are blood brothers.

MONITOR PROGRESS

At monitors, Dan Kent has a similar attitude to Joe Harling: he seeks a solid and reliable set of mixes with some classic processing, especially for a sound that harks back, ultimately, to The Kinks in mono. The monitor desk is a DiGiCo SD7.

Photo: Simon Niblett

Above: Dan Kent (left) and Fergus Mount at monitors

Matt Maysey (comms engineer)

"There's nothing too unusual going on," he says, "other than it being pretty full, in terms of processing. We have 160 channels, about 60 aux sends, 10 groups and 16 matrixes. There's 12 in the band, eight tech mixes, the dancers and any guests who come along . . . it's doing about 30 discrete mixes, plus a lot of talkback stuff and effects sends."

Kent, too, has a Fourier Audio transform. engine. "That's only doing reverbs," he says. "It's more flexible than touring hardware units and caters to everyone. I think the transform.engine is popular in touring because DiGiCo put their name to it, and that implies a certain amount of reliability and backup. It is a Dante unit, so to make it work in a redundant engine set-up, we convert the Dante into MADI which in turn feeds into the Optocore loop via an Optocore DD2, so it can seamlessly switch between both engines."

Virtual soundchecks are the norm, Kent confirms. "In this phase of a tour, at the beginning, the virtual soundcheck is really helpful. We can record the first few shows and work on any details we can improve, and we will continue to archive every show as the tour progresses. In terms of local acoustics, stadium soundchecks are tricky but things tend to clean up with an audience in. You can overreact and start to make changes, but then discover you didn't need to when the show starts! On this tour, we will bounce between stadiums, festival sites and arenas, so there'll be changes day-to-day, but nothing too drastic."

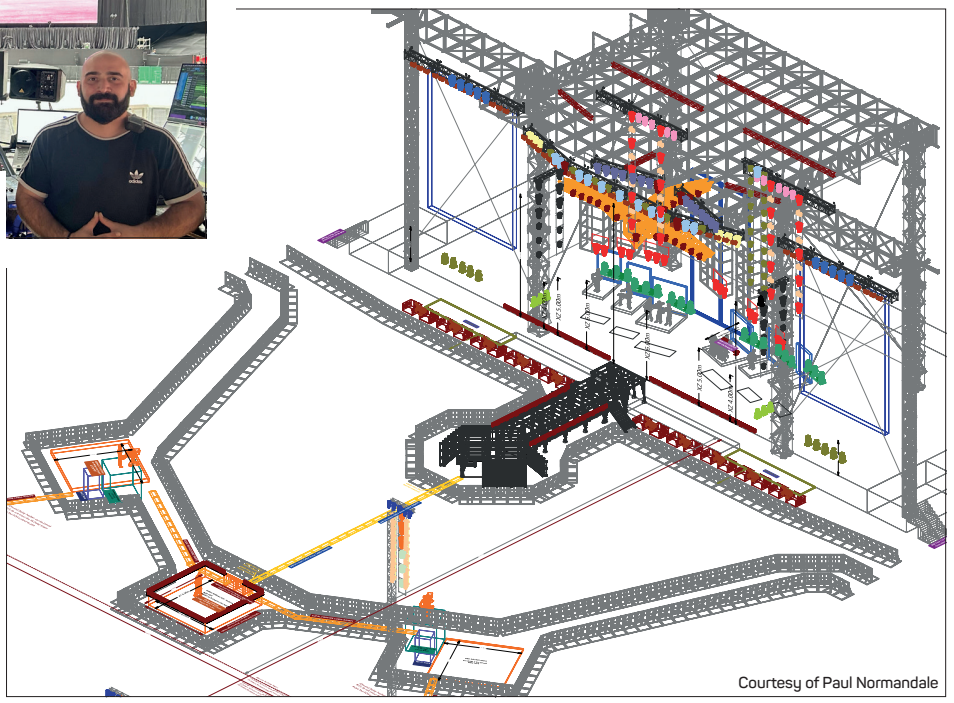
One eye-catching unit in the rack is Cedar Audio's DNS 8D multichannel noise suppressor, the one with Dante . . .

"I'm using it to help with ambient spill," Kent explains, "and also enjoying the MSE [Mustard Source Expander] processor released in the latest DiGiCo software. Also of note is the flexibility of the Wisycom RF setup: we're using Shure Axient radio mics with a Wisycom MAT288 Antenna Matrix on the receive side, allowing us to have multiple receive sites as the band move around the stadium out to the C Stage. On the transmit side we are utilising the Slave output of the Wisycom MTK952 IEM transmitters to have a duplicate set of transmitters at the C stage, resulting in faultless IEM coverage across all performance areas. This system is being expertly managed by Fergus Mount day-to-day and was designed by the one and only [Britannia Row RF commissioner] George Hogan."

COMMS NATURALLY

Tucked away next to the guitar tech and the automation racks, you'll find Matt Maysey in charge of comms, radios and IT. How integrated are the various comms lines? "Some people don't like too much comms traffic," says Maysey. "I give Joe a sniff of the show party line which gets patched into audio world's ears, and MD Karl can still do that on the band's own system, but they don't really want to talk into the show comms. The creative director Kim [Gavin] has more because he's so integral to the flow of the show, talking to the dancers' ears, the band, audio and show comms - there's a show caller, too. We were in rehearsals for a month, and it's all incredibly well drilled.

"Part of that is the way we use the comms. It does glue everything together: without the comms, there's much less of a smooth-flowing show. The show caller,



Top: L-R: Ville Kauhanen, Joe Harlinga and Giacomo Gasparini

Above: Harling's outboard racks

Right: Pre-vis drawing depicting lighting fixture placement

Maddie Cupples, is calling every cue, so all the movement and change happens when she says so - doors, platforms, props, lighting, dancers - and playback has her in his ears, although she doesn't cue him directly. The automation team has six channels of its own Riedel Bolero system but is also patched into Maddie.

"I have Bolero wireless integrated with an Artist matrix frame, with a couple of analogue cards, radio interfaces, relay card . . . AES67 to drive the Bolero and antennae, and a couple of 2300 Series SmartPanels as well for various people - LX out front has got one, and the camera director because we need more links than his comms can deal with." RSP-2318 and DSP-2312 are the exact models in use.

The video screens combine live stage feeds with overlaid content, and comms are shared between video and LX teams. "They've got some private lines, a few point-to-points and a couple of party lines, and I don't listen to that section. To be honest, I tend not to monitor everything because everybody has a button to contact me if they need to. I have the show channel on, just in case, but if anybody needs to change or fix anything I'll know about it straight away - either on my screen monitors, which cover the switch network, the comms network and the radio network, or in my ears."

He continues: "There's a lot going on, and the main reason I'm here as a specific comms engineer is the safety side of the automation: when the band platforms are moving, there are cable cages and people around the stage, and someone needs to be able to say 'stop' if it has to. It may be quite hi-tech - LiDAR sensors are used, for example - but you still need people with eyes around! Once it becomes critical, Brit Row and Surfhire prefer a dedicated comms engineer to look after it, rather than it being the job of somebody in audio who can be distracted. I have an antenna network that covers the whole of the arena and beyond - even into remote trucks in the car park, which have a Clear-Com HelixNet Partyline system."

IEMs are managed by audio, but Maysey has access to them for communicating separately with the band, the dancers and Robbie himself, which he makes available to the show caller via the monitor system. "It's only needed if there's a showstopper event, or perhaps we're getting too close to curfew, and they have to drop a song. It hasn't happened yet . . ."

REARGUARD ACTION

Roland Oliver is d&b's global touring manager and maintains strong connections with touring professionals - especially FOH and systems engineers. "I've known Joe for many years," he says, "and I know how much he wanted GSL for this tour. Fortunately, Clair Global was in a position to deliver it to Brit Row - as well as providing Ville, of course. They are a perfect example of today's 'double act' of FOH engineer and systems engineer . . . completely symbiotic."

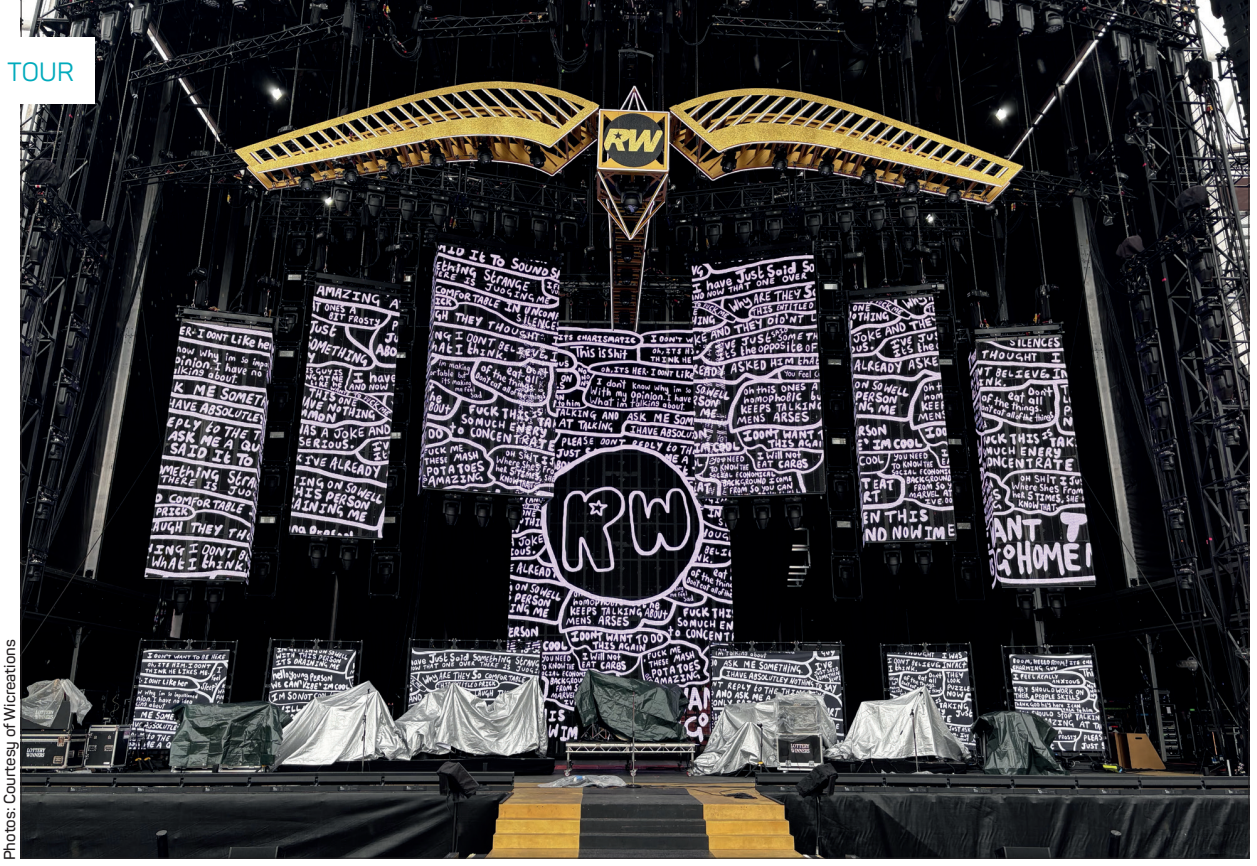
This interdependency is largely due to the rapid advancement of console technology, on the one hand, and loudspeaker technology on the other - topped off with the further entanglements of digital audio networking. Specialising in one or the other has practically become a career choice. On this tour, the 'Britpop' idea inspired Karl Brazil and Joe Harling to create a raunchy-but-crystal-clear stereo field with classic dynamics processing, and Ville Kauhanen has built and tuned the system to deliver just that.

With a powerful male vocal and '90s-friendly backline, Kauhanen has balanced GSL and KSL arrays to master the blend of mids and high-mids across the stadium, as Oliver explains. "The KSL has more of the upper low-mids and upper mids," he says, "while the GSL has more weight. You've already got the weight in the main system, especially with the flown subs, so you don't need any more, further back. It's to keep the balance of the spectrum, which is something specific that Ville does."

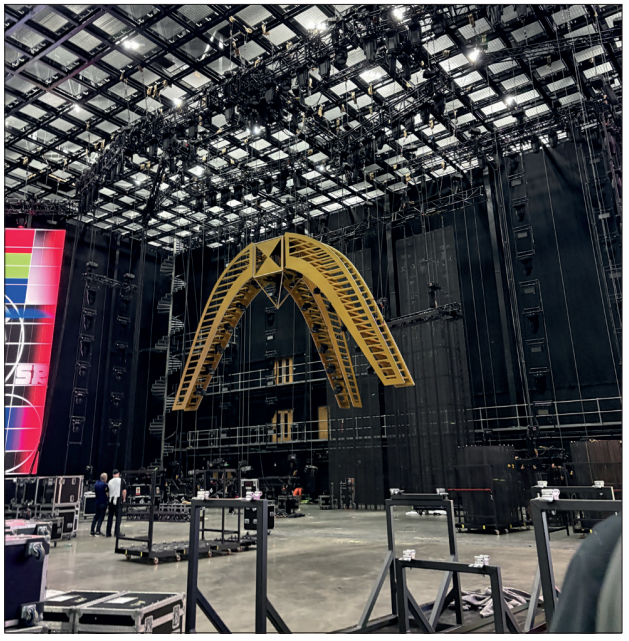
The flown subs push out the LF too, while the subs on the ground fill in for those standing further forward towards the stage. Plus, for the band, the GSL's renowned rear rejection makes life particularly comfortable - 'more art, less noise', as they say. "It's a kick-and-snare sound, with clean, solid bass guitar," continues Oliver, "so you don't need to move quite so much air. If you do it this way, you're getting a much more controlled system throughout the stadium."

SUMMER LED

Glen Johnson is the lighting director, working to a design by Paul Normandale. With Chris Roper as crew boss, lighting was supplied by Blackburn's Lite Alternative. This is Normandale's second world tour design with Robbie Williams, having previously also worked with Kings Of Leon, Stevie Nicks, Coldplay, Depeche Mode, Liam Gallagher and Arctic Monkeys, among others.



Photos: Courtesy of Wicreations



From top: Screens from Universal Pixels and the giant golden rocket have been automated by Wicreations

The rocket structure flies upwards during the show; WI Wagons enhance the on-stage movement

"As creative director, Kim Gavin led the dialogue that lighting followed," Normandale says, "and he had developed a dynamic show of dancers and moving set pieces. Many of the shows start - and indeed *are* - mostly in daylight, so bright, IP-rated fixtures are essential, hence the choice of Ayrton's Veloce Profiles and Mambas, TMB's Solaris Flares and Chauvet Professional's Battens. These are all central to the design, which evolved with the set as it was designed by Stufish.

"The fixtures in the rig are, in essence, side Torms to light what at times could be 16 to 18 people on stage, a front truss, rear Torms and a mid-stage truss to mimic the flown set element. But the biggest challenge in lighting this show is the transition from daylight to dusk and night." This was skilfully managed. The lighting desk is MA Lighting's grandMA3, of which, Johnson adds, he most appreciates "all the new features and the endless possibilities of the Phasers."

Universal Pixels has supplied the video infrastructure for the tour which, as commercial director Phil Mercer explains, goes well beyond basic IMAG. "It's all tightly integrated into the show design everywhere," he says. "There are 15 separate screens on stage plus left and right IMAG screens. As creative director, Kim Gavin has a very clear vision of how the show will be run and gave us a detailed brief. All the pre-made content was created by Luke Halls Studio in London."

The addition of live effects to video captured by the cameras is another layer of sophistication that maximises the feel of glamour. "Absolutely," says Mercer. "We're using the Notch 3D motion design tool, and also live colour-grading to the camera pictures, which is the first time this has been done on a Robbie tour. There are 11 manned camera positions and three compact cameras."

Aside from the IP-rated ROE Visual V8 Glue-On-Board transparent LED screens, sealed and weatherproof, there are Vanish 4ST outdoor LED screens, INFiLED 50sq.m ER5.9 LED screens and IP65-rated ROE Strips fitted to the rear of six on-stage screens. Disguise GX3 media servers are used to feed the content to the screens, while Brompton Technology's Tessera SX40 Processor is used to enhance image clarity and colour depth.

Pomfort's Livegrade Studio is a digital imaging system used to monitor and add visual effects to the live camera feeds. According to Mercer, "live colour grading is having a moment

right now on touring shows, and both the director, Matt Askem, and live colourist Richard Turner were keen to bring it on board." Crew chief Peter Tilling presides over a 10-strong video team.

ROCKET DJ

The screens move frequently throughout the show, adding to the kaleidoscope of impressions. Mercer expands: "There are eight flown on-stage screens - all V8T - six of which are three-sided columns with custom metal work fabricated by Twenty Three in Belgium to enable seamless corners. The other two on-stage screens are located upstage and track open and closed several times during the show to enable scenery and performers to get on or off stage. Automation has been done by Wicreations, also in Belgium. There are seven on-stage screens - six are V9T and the seventh is a V4ST - all mounted on mobilators which track up, down, left and right and also rotate through 180°."

Called WI Wagons, these are provided by Wicreations, along with the upstage screen-tracking package, the rocket set piece, a performer winch on a track, plus the catwalk and B stage. Raf Peeters, key account manager for Wicreations, worked closely with Cas Verbruggen, the company's project manager, and a team of five touring automation techs to facilitate this complex arrangement.

"We have eight WI Wagons on the stage," explains Peeters. "Six of them are band risers that can move automatically. Then we have two WI Wagons for Robbie and the dancers; 'the cube', which is a bigger (3m by 3m) riser that moves forward from behind the upstage video screens, and an extra, fully wirelessly controlled WI Wagon that Robbie emerges on several times throughout the show."

This includes at the top of the show, when the Wagon brings the artist to the front of the stage surrounded by a large number of prop microphones. He disembarks the platform, performs the song *Rocket*, then climbs the large, golden rocket structure - rigged with special FX from ER Productions - which is then lifted above the stage.

For his next trick, the artist launches himself into the air. "The performer flying element is also handled by us," adds Peeters. "The performer winch is on a small track - so when Robbie jumps off and 'flies', he tracks forward a little bit so he can land without being too near the rocket."

Wicreations also supplied skin decks that cover house stages and create a uniform look with the catwalk and B stage; this includes a gold accent around its perimeter to mirror the golden rocket. The skin decks have reflectors integrated in them to allow the laser-guided Wagons to position themselves correctly. As previously mentioned, stage design is by Stufish, with Ric Lipson and Faz Barber the key contacts for Peeters and the Wicreations team.

Asked what the biggest challenge has been for his team, Peeters responds: "Relatively short lead times, but also, we have used the WI Wagons for several permanent, long-running shows and arena shows, but using them on a touring production that's going from outdoor stadium shows to arenas is a new context for us. It's exciting though, because it creates a lot of opportunities for future tours, both for us and for designers."

Screen-tracking is clearly a key area of Wicreations' expertise but, let's face it, nobody can track a screen like Oscar Winter, our putative Spider-Man. And that sums up a Robbie Williams production and production in general: we know who the real super-heroes are.