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S-JURD-YS

Apart from a visit to see the monumental Take That show last summer, I have for the last few years studiously avoided the more 'pop' end of the market. There was a time in the early-tomid-90s when this was the only game in town and it served to keep many within the service sector afloat during a lean period when raves without rockstars took the teenage concert dollar. In truth, pop has never gone away and The Saturdays are a fine example of a contemporary pop group seeded from the loins of TV and media.

In the next six months we will see the likes of Matt Cardle, Rebecca Ferguson, McFly, Olly Murs, JLS, Westlife and Diversity all hit the road, and of course the devil's own spawn, the *X-Factor* tour. This is business not to be ignored: some of these artists will endure, as indeed McFly and JLS demonstrate; others will fall by the wayside as the miniscule attention spans of a more youthful audience base flit to new, sparkly horizons. For The Saturdays, that horizon is still a way off: this is their first venture into the Arena circuit and, having completed a sell-out theatre tour just 10 months earlier, the fact that they are only putting maybe 6-7,000 burns on seats in these enormodromes shouldn't be seen as a failure, but as a success.

The key, of course, is tight budgeting, and arguably the fact that the venues are pleased to see them and discount accordingly. But a quick glance at the photos reveals this show looks every inch the part. How is that possible?

Sound

Before examining The Saturdays' sound there is a sub-text to the audio story: I did consider long and hard whether to mention it, but inevitably rumours will leak out; better the truth be told. Wigwam is the system provider and I was tempted to visit this tour by the fact they are conducting trials with the new Adamson Energia E15 PA system, "a great system" - with very high output capabilities - Chris Hill had informed me, among many other positive comments.

Sadly, the Adamson left the tour the day I arrived - not, it must be emphasised, due to any failure on its part to continue to excite the likes of Mr Hill, or indeed the audio touring crew headed up by Nick Warren at front-of-house. Wigwam technicians and Adamson Engineers were concerned about a small HF diaphragm issue: though there was nothing catastrophic to speak of, both parties wanted to dig in and ensure that no major damage occurred.



Live at Sheffield Motorpoint Arena: 15 December 2011

Words & pictures by Steve Moles

There are two things of significance to note: Wigwam responded immediately by replacing the entire system with a comparable d&b J-Series PA. They took decisive action and avoided any compromise to the client or to their reputation. Adamson did likewise, to ensure that the E15 was not in a compromised position. Jesse Adamson, Adamson's director of marketing and sales, told us: "In the beta phase we're watching every element of the system very closely. And as anyone would expect, there are small improvements along the way. The road treats a system differently than the lab. Debugging large format systems in the field is necessary to ensure the best performance long term. In this particular case we wanted to ensure the E15 did not suffer from a bad debut in the UK. We all felt this was a 'better safe than sorry' situation."

It is also pertinent to acknowledge just how fortunate this industry is to be supported by so many innovative companies that take such a responsible attitude. When even stodgy, safe Toyota is obliged to make the occasional product recall, we should acknowledge the proper and professional response by all concerned parties. Besides, it doesn't mean we can't explore Adamson's E15... So, I asked - five girls singing through a system that can deliver extremely high SPL: how does that work? From the moment Nick Warren began talking it was apparent his enthusiasm for the system was undiminished. "I'd have to hear a rock band through it to answer your question," he said, quite reasonably. "This is a pop band and normally all you want is for the vocal presence to just sit there. However, there is some banging 'dance' content to their music, so we are testing the power end of the system and it certainly delivers. With the E15 I was using just two d&b B2 Subs per side because so much energy comes from the main system; today I've restored the subs to six per side to go with the J-Series." Even for half-arenas that's not so many subs. 'What's the roll-off point for the E15 low end?' I asked Wigwam system tech Rob Priddle: "The system runs 50Hz to 18kHz; and to answer your first question, I tried a heavy metal rock track and had to leave the building." Let's hope the whole audience doesn't do that when Wigwam service the Mogadon world stadium tour next year.

Adamson will, of course, be furnishing a sub for the E15 in due course, something for which they have earned a good reputation in the past, though sadly we don't get to hear their products in the UK











Crew, from top:

Craig Pryde, monitor engineer with DiGiCo SD8 console.

L-R: Camera director Stuart Merser and lighting designer Neil Trenell.

L-R: FOH sound engineer Nick Warren and Wigwam system tech' Rob Priddle with the Avid Venue console.

Production manger lain Whitehead of Production North.

concert market often enough - something that Wigwam looks certain to address. Warren, for one, wanted to remove a slice of that low frequency energy out of the air and down to the ground, but then he has five permanently open vocal mics on stage to think about. "Either way, at rehearsals I had the PA on all day and the lack of ear fatigue was notable."

The HF is delivered by a 4" compression driver into a 1.5" throat, "that is just savage," said Warren. "The system low end comes from a pair of 15s in each cabinet; there is no CPL [coupling] function in the software like you get with the d&b J-Series," he added, "so the coupling is not compensated on long hangs," again, this is a development issue that will be addressed shortly.

Warren continues: "I've only adjusted two EQ points from my system set for the switch from Adamson to the d&b J." Add the extra subs he's used this night and the d&b CPL function, and there's more adjustment than that statement reveals. Around song five a song characterised by big, five-part harmonies - the band seemingly retreated from the mix. Warren turned and said "I've lost the band". Warren quickly restored things, which shows how even a seemingly simple girl/band mix is not a steady state song to song, and the differences between the two PA systems is more nuanced than just the room EQ.

To keep with the Adamson a moment longer, I asked Warren and Priddle about the more manual aspects of the system, flying and transport. "The system rides in single- or four-cabinet dollies," said Priddle, "obviously designed for the US market where they tend not to stack in trucks - the top cabinet is curved over so you can't put anything on top."

"Also, you can't assemble the whole hang in a snake across the floor, you have to hang four boxes, lift, hang four more, and so on, so it is a bit slower. But it is clever to fly and land," meaning, "in this four-to-a-dolly format it's easier to deal with than, say, a system like K1. The cabinet is a bit wider than J, but is designed to be self-powered (currently ground driven by Lab.gruppen PLM 10000Qs); it's 79kg now, and will be 95kg with the amp module added." (For reference, a J8 or J12 weighs 60kg, with two 12" and a 10", compared with the Adamson's twin 15"s. A better comparison might be the twin 15" L'Acoustics K1, at 106kg.)

There were other issues regarding the flying system. Priddle mentioned that if you wanted to open an enclosure in the air, the access panels and screens are screwed top and bottom: "You have to pull the front pins to do that," he said - not something you'd wish to contemplate, abseiling down to the second top box in a long hang. "The multi-connector Adamson have created looks military spec' and carries Cat-6 data and mains," Warren added. "That's one of the features that first caught the eye of Chris Hill when they started looking," though presumably without the on-board amplification they're not running mains at the moment.

For today's J-Series system, Priddle has set the mains just as he would have with the E15: "There are no wide J12s at the bottom of the hang. With the thrust stage we keep it tight; to the bottom it's all J8 to keep it off the girls when they go out there to sing. We use Q-Series for front-fill cover."

Besides the girls there is a four-piece band, "drums, bass, guitar and keys," said Warren, "plus eight channels of HD, but they're only music tracks - there's no HD vocals. The stage is free of back-line, Craig Pryde on monitors has flown C4/C7 side-fills for the dancers but there's no vocal in them. I'd like to 'big-up' Craig," Warren adds. "I get nothing down the girls' mics from him. Vocal mics are Sennheiser 935s - all heavily 'bling'ed - and the girls all have custom in-ear inserts. Craig is very organised up at the stage end, it's run like a military operation. He had two weeks in rehearsals with the band and balanced all the HD stuff - it's like a CD left and right, so I'm free to follow the vocals."

Warren has an Avid Venue for mix duties. He singled out a Wave Plug-in: "Vocal Rider works like a look-ahead compressor. Very useful when the girls shout, saves me a 2dB push and pull on their individual faders and you'd hardly know it was working. Probably the biggest issue vocal-wise is the fact that they tend to all talk at the same time between songs so you end up not understanding half that they say." Being their first tour in arenas we might excuse a little nervousness - besides, there's not a lot a FOH sound engineer can do about such chatter.

Overall, I have to say Warren does a very competent job: after that early scare with the band he never lost them again, the sung vocal content was well defined and sweet, and those 'banging' dance songs he mentioned certainly rocked the room. Warren has been using d&b J systems for several years, and by his own admission, "knows and likes the system very much". Even so, after the show the first thing he said was, "I want the Adamson back."

I will endeavour to hear this system as early in 2012 as possible . . .

Monitors

Craig Pryde is one of those sound engineers who enjoys working both ends of the snake. "I regularly mix front-of-house for Mika," he began, "and he'll be touring again next year, beginning around April." Yet another band on the road in 2012 and no doubt good news for SSE as they have been Pryde's supplierof-choice for previous outings.

"For a band like The Saturdays where monitors is mainly stereo in-ears, what I'm putting together is no different from a frontof-house mix. It's all Sennheiser G2 system, the girls on radio, the musicians hard-wired. The tech mixes are all stereo as well. Besides the music mix for dancers from the side-fills, there are d&b M4 wedges below stage alongside the five lifts. There's a lot of low end down there, so the wedges are also to keep people on cue. The girls all have custom JH Audio ear-pieces. I got myself a set and tried them for the first time yesterday and they sound incredible - there's no doubt they are a big benefit to the girls"

Pryde works from a DiGiCo SD8. "I started with 10 days of just band rehearsal and began by building a generic stereo mix for all the girls, and then refined specifically to each girl as we progressed. The HD material is mainly extra percussion and keyboard parts, the band's MD Marcus Byrne had access to the original studio files and we were able to spend the time in rehearsals matching the studio files to the live band. This is a very professional band - we've done something



like six shows and I'd say we haven't spoken for the last five. With all the back-line off stage, the only issue on stage is the low end, but the girls do understand what comes from the room will have an effect, and they stay well on the mic."

Watching them 10m in front of the PA out on the thrust they were very good, and from the IMAG it was clear that these girls are never miming. "Nick and I have never worked together before, but we quickly found a nice working balance. I'm careful not to tilt the IEMs too loud and have the girls pull away from the mic; Nick will pull frequencies for me if the room dictates - 160Hz shows up frequently. As for the desk, this show just fits the SD8. Yes I'd like an SD7, but this board suits the budget and that's the consideration throughout the production and what makes this tour work. And the fact is, with DiGiCo you can easily jump between the 10, the 8 and 7 - they do have a full product range and as a monitor man you can't always afford to be specific anymore, but they have desks to suit any operation."

And they've just significantly boosted capability by unleashing extra processing capacity through a software upgrade, but Pryde had yet to avail himself of that.

Lighting

When I first entered Sheffield Arena my attention was immediately drawn to a sizeable lighting rig, supplied by HSL Group up in Blackburn, above stage that extended well out into the audience. What lighting designer Neil Trenell has done with a tight budget is make effective use of relatively low-cost trussing, and then populate it carefully with lighting instruments to sustain the illusion of scale. Trenell was a new name to me, what else has he done? "I designed for the X-Factor tours following the '09 and '10 TV shows - that's where I first came into contact with production manager lain Whitehead and Production North. I also do Pixie Lott, Ed Sheeran and the Brit Floyd.

lain asked me to submit my CV for this tour, the band's management must have liked what they saw as I didn't have to present any ideas." (Whitehead did strongly support Trenell's application, as we'll see below).

Trenell says: "The show is split into three elements - a retro 50s and 60s look to begin, a current era mid-section, and then some futuristic looks to end. In terms of system there are limits - I had to design something that was simple to load in and out, and didn't take too much truck space."

Despite scale, this is all single straight trusses - easy to rig and fly they comprise back, mid and front, parallel runs out over the length of the catwalk and arguably the most significant element, two upstage trusses in chevron configuration from which hang tall vertical sections of LED video interspersed with hanging frames of moving heads.

Trenell comments: "The girls actually suggested we put the frames between the video. Iain had proposed the video screens in panels the way they are from the outset, and so it was my role to make the lighting suit."

Whitehead also designed the stage set all curved, faux stainless steel with Schnick-Schnack LED fixtures behind thin diffuser panels. This did much to enhance the retro and futuristic looks, and gave Trenell lots to light. He's chosen from the extensive HSL Robe inventory, Robin 300 Beams and Spots, ColorWash 2500 Wash and Spots. "I did wonder if the 300s would make it in arenas," he said, "but I've been very surprised. The 2500s do all the hard work, the 300s are eye candy, but even on stage where it's hard for them to compete with the LED screen, they do very well. When the screen is black they give good background for the cameras. The 2500 Washes I use mainly for the dancers, the Spots for the girls. I'm very happy with the lights, they're great for the cameras and HSL's kit is in



Above: the lighting plot shows a Robe-dominated rig.

good condition - I haven't seen any failures during a show."

Trenell runs a tidy show, a Hippotizer media server feeds the Schnick-Schnacks and he keeps them nicely coloured in sequence with his main rig - sepias, pastels and saturated for the first two sequences. He says: "I resort to pencil beams and strobes for the more futuristic feel. There's also a turntable on the thrust as well as the lifts on stage. And you can't neglect the band - they're on stage and they need to be seen. In that respect it's a massive show."

That need for scale is further enhanced by a bunch of Robin 300 Beams downstage left and right, out from the main stage on deck extensions that Whitehead added in his design; plus Trenell has placed two Nova Flowers each side of stage, off to the rear for those big shine-through-the-set looks that, if used sparingly, can be so punchy. "I also have five Robert Juliat Lancelot 4kWs in the house for spots - there are just three songs where I don't use them. They're well balanced - they help me a lot."

Control is from an MA Lighting GrandMA2. "I've been using one since the moment they first came out," says Trenell. "Actually, I wasn't a massive user of the MA1, I was more an Avolites user, but I've been doing a lot of video and found an increasing demand for Universes." Trenell has his own company, Fix8 Group, and holds quite an inventory of desks and media servers media being another of his skills, for which Whitehead picked him out. "For this I have eight Universes: I drive all the LED in the set. The content on the LED is all custom made by Helena Spencer at The Field. There is no IMAG on the LED, just the side screens; if there had been a song where it would work on the LED we would do it, but generally I find IMAG on stage screens a nightmare. The desk for me is rock-steady; it's running the latest release of software and it's fine. It's easy to program, even switching from Avo' you just need to think German, and it's easy to modify on the fly. It's great in that respect: I often see something in the camera view, maybe a shadow on one of the girls, and can easily knock a focus to rectify that." He particularly liked the ability to map a GUI of his design plot on a desk's touchscreen for the fast, intuitive grab of a light for just such a mid-show correction; "Just being able to grab a light, or run your finger over a group, is just great."

Video

Camera director Stuart Merser is another name I'd not come across before; he too was someone Whitehead had had his eye on from an earlier tour. "The kit is all from Creative Technology; the LED is Flyer 18, the projectors for the IMAG screens are Barco R12 SLMs and the cameras are Sony D55s - just two in the pit on short tracks either side of the thrust, and one FOH with a J72 lens." Would he like a camera on stage? "Actually, I could do with another FOH, with five girls and because of the limitations when the girls go onto the thrust, where often I can only get back shots from them, the FOH view becomes crucial." Merser has just one professional cameraman, "the other two are the screen tech and a driver - neither of whom have operated before and actually both have done incredibly well, even if it has meant I've had to be a bit more directive than usual." Merser has a detailed cue sheet, each song word for word with stage positions. "The thrust is used a lot, they might go out for a verse, or one or two songs at a time. The turntable is a help in that I can catch them front-on from the pit cameras as they carousel around. The material I feed to the screens is all clean no effects. I'm using a little Panasonic eightchannel SD video and it's just right for the job. Danny Sheldon, CT's camera guy, is feeling the heat because he's taken it on for me and is always searching for something I can use. That's a great help. Having started as a cameraman myself with XL back in 2000 I know how hard that is. All the guys are brilliant, as is the CT kit - this is the first time I've seen the Flyer 18 and it looks great to the eye and through the camera."

With limited scope, this was very much about providing enhanced views for the more distant members of the audience. Visiting the top rows and looking back into the crowd, sudden turns of the head indicated that viewers tended to snack on the IMAG screens, concentrating more on the stage, needing just the occasional IMAG glance as a top-up. The show ran for one hour and 25 minutes and, though he might not have had the greatest variety to offer, Merser never tired from his task.

Production

I asked Whitehead specifically about making an arena tour to less-than-full houses work financially. "Most of our jobs are successful because of the suppliers we use," he began modestly enough. "That's why we build relationships; we don't take chances. With selecting people like Neil or Stuart you have to ask yourself, 'are they up to the job?'. In Stuart's case I knew he'd got the experience. It's also important what else they bring to the production: Neil was particularly worthwhile because of his skill with the Hippotizer - he was able to take the content and fill in the gaps or tailor the footage to a particular colour if the video content didn't have quite the right feel for the song. He's a valuable asset and a very approachable person. Management have very set views on how their act is to be presented - Neil and Stuart both see that and bend their work to the task set them. Neil also works well with limited time: as a programmer and operator he gives us more than the big shows with long production rehearsals, but when they go out the desk operator is not really there yet, because he's not been part of the build and programming."

Whitehead designed the set, something I've seen him do before, and is a growing skill amongst the production management fraternity, but I was surprised to discover he also engages all the fabricators from what we might term 'regular industry' as opposed to entertainment industry specialists. "We've been doing it from our base in Leeds for some time now - Boyzone, Girls Aloud, McFly. It's down to budget; these artists don't tour the world for a year and recoup the investment, they're out for six-to-eight weeks and can't spend a hundred grand on some big set. For us, if you've designed it and you know the limitations well enough, there are no surprises." Does that limit the gee-whizz potential? "Not necessarily. We have moving set pieces now which we re-use - the lifts, for example - and we have invested in a lot of Schnick-Schnack, first for the X-Factor shows, and more recently for this. We take a basic promoter-provided 60ft by 32ft stage and add an 8ft by 92ft wide strip across the front - that simple addition makes the whole thing look much bigger for relatively small input."

What about the actual fabrication? A metal basher in Leeds isn't going to turn up on a Sunday afternoon rehearsal with his Mig kit and modify a small oversight you made in the set design, is he? "The local fabricators we have used have learnt: in the early days they did have to redo things, mainly to address issues of durability on the road. Practically they can deliver sets cheaper and as good, but you do have to put in the extra time managing the process. The sets are assembled in our Leeds base before rehearsals; that pre-build negates the need for an overnight or weekend welding job in production rehearsals. We plot out the video and lighting rigging on the floor and build the set over it to check the relationship between set and flown equipment. Because these acts can't afford to scrap a big set after just a six-week run we have a design core, and then custom the décor element. For this tour we met with the management, stylist and choreographer; we assessed the guarantees - we weren't spending a lot of money in any department; they'd seen what we had built for Boyzone and thought it was great.

CT did us a good deal. With a pop act you've got to be careful, use low res' and the image can fall off half-way down the house; you don't want that. The idea of the lights between the LED screens came from the girls - and HSL had just the right frames in stock to do that. The Schnick-Schnack is great for pop acts, you get vibrant colours and it looks clean, it really gives the set a good feel and in all this time we've never lost a single strip. The key to self-build set is to avoid surprises. We might make 20 round trips to see the fabricators, yet because they're on our doorstep that's affordable."

Truth is, I would never willingly go to see a Saturdays show, but then I'm not their target audience. More to the point, even from my somewhat jaded perspective it's possible to see they represent good value for money.

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