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Symphonica

LSi visits George Michael on tour in Dublin

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Despite my best efforts, I never got to see 25 Live, George Michael's last tour, so I was really looking forward to this one. I was not disappointed. For those of you who still think of George in the context of *Careless Whisper*, think again; the mellifluous, honeyed tones of his voice still resonate with soul and passion, yet in maturing have become even smoother.

Since being introduced to George's album *Songs from the last Century* two years ago by David Claringbold, the GM of Theatre & Events at Sydney Opera House, I'd wanted nothing more than to hear him render such masterpieces live; that he has chosen to do so accompanied by an orchestra is typical of a performer who has always striven to impose the production values of the recording studio upon the stage.

25 years ago, designer Jonathan Smeeton put George in a giant cage on stage and then unfolded the artist to his public; these days George is very much master of his own presentation. In covering the *Symphonica* tour I discovered an artist whose clear ideas of how he wishes to be seen and heard exert powerful influences on all departments of the production team.

Stage Set

I was given a quick tour by stage manager Rik Benbow. This was their second show at the Dublin O2, but there had been a boxing event between the two, so - lighting apart - much of the show apparatus was being reassembled having been loaded out. "The stage set takes parts of the old stage from the last tour, maybe 30%, and then marries it to the new stuff."

The set is built from Total Fabrications Ltd (TFL) Arena Deck modular staging system. Benbow elaborates: "The design is in layers, a top horseshoe-shaped curved deck circumscribes the rear and sides and gives George a platform above the band and orchestra. Then the decking steps down in terraces beside central deep steps, with the band and orchestra distributed equally each side. The big thing is there's a sub-stage, the different pieces sit on top; that means when we switch from a large arena like this, to one of the smaller opera houses or concert halls we're playing, we can effectively pick and mix the elements of the stage set that fit and suit the venue." Set was designed by tour director Ken Watts. I spoke to him later and he revealed the design's evolution had been easier than perhaps accommodating a 35-piece orchestra, 10 piece band and three BVs might imply. "George was very clear about how he wanted the show to look - clean and neat. That's one reason why you'll notice the lengths to which we've gone to drape and blackout this venue. Determining the stage set was a proportionate response: how much space do the musicians need and how can we place them so that visually they don't overwhelm the context." Context being an implicit invitation for the audience to immerse themselves in possibly the classiest nightclub they've ever visited. "Once I got the placement arranged it was just a matter of sitting down with Chris Cronin at TFL and letting him engineer the details that make it work."

There is, of course, a little more to it than that. A fully plumbed dressing room sits below deck, for example, as do tech' spaces for backline crew. The basic concept Cronin applied is to have a rolling sub-stage (the load-in follows the typical convention: build the stage out in the hall while the light rig goes in and up, then roll it in beneath) with the terraces, deep steps and horseshoe sat upon it. What really completes the picture is that the two monitor men (four consoles, no less) are relegated to a backstage position, completely out of sight of the audience. That single artifice more than any other - the complete absence of a single visible member of the crew anywhere on stage - is what gives this show its class.

George Michael: Symphonica

Live at the Dublin O2 Arena: 3 November 2011 Words & pictures by Steve Moles



Left: Andrew Robinson, monitor engineer for George Michael Right: Gary Bradshaw, FOH sound engineer Left: Dennis Gardner, production manager Right: Benoit Richard, lighting operator Left: Paul Brower, visualiser (Sound Spectrum) Right: Richie Shipman, video director Dean Ruffy (left) and Andy Tonks, video

Rear view: the curved video screen, supplied by Chaos Video.

"Depending on space, it takes about four-and-ahalf hours to build," said Benbow. "We get out in two-and-a-half to three hours." He was in no doubt the effort was worth it: "I think it's fantastic from an audience perspective, the fabric Baz Halpin spec'd for the drapes takes light beautifully." It's not often you get a stage manager waxing lyrical about soft goods. "I believe we got the last three rolls in the world." There's no doubt the high gain fabric has an impact, for a black fabric the Austrian-style ruches look spectacular when coloured by light, and there are a lot of them. The finish to the stage is impeccable, even the front edge is dressed beautifully. "The main issue is storage, we have to keep the stage clean and slick. It's a 180 degree presentation and there's never a flightcase in sight."

Jem Matthews is part of the carpentry team: "There are three of us and two trucks full of staging, 18 set carts and 182 decks."

The mix of new and old elements had not given any problems, said Matthews: "The older stuff is pretty robust to be honest, so the way it locks together is still solid. We have a few custom gate sections but otherwise it's pretty standard. The only problem we have in assembly is the language barrier; but the special sections are all colour-coded, so as long as we keep an eye on them it's all self-explanatory - even in Portugal."

What about the LED strip inlaid in the horseshoe decks? "They haven't given us any problems; the lighting guys fit them and hook them up. Mechanically that's all very sound. There's a bay area for the backline crew stage left and right. Once we've rolled the stage into position we're able to take out a few of the cross bars to ease access. We have done one or two outdoor shows where we've just used the horseshoe and steps; exposing the decks to rain hasn't been a problem. It's a good, solid system."

Lighting

Something of a cleft stick this one: Baz Halpin was engaged to design the show, while Benoit Richard, who worked on the previous 25 Live tour, was brought in to run it. Richard is very much in the pocket of the act - nothing wrong with that, and he's very sympathetic to the design concept, but it does mean some changes have been made.

He says: "Baz has designed a fabulous show. Dennis Gardner programmed it before I took over, while he turned to his production manager responsibilities. The main thing with this artist is communication, because I've been in this seat before that channel is already open."

Richard has been working on movies between George Michael tours. Now a fully paid-up member of IATSE Local 728 (Hollywood), I dare say we'll see less and less of him touring. "Doing that has rejuvenated me. That said, with this I've tried very hard to keep the design intact, I just needed to tone down the things not liked by George. It's still very rhythmic, but visually more mellow." Contrary to the traditional philosophy, Richard stated: "The purpose of the lighting is to let the video take precedence and not distract from it. I often take my lead from it, following the prevailing colour." Most of the video content is from Sound Spectrum (www.soundspectrum.com), a video version of a sound-to-light unit, with a morphic, fractal quality to it that grows and devours the screen. Often it's monochromatic, or certainly fixed within a limited palette. "That's what he always wanted, a seamless blend between lights and video, with lighting in the supporting role. I've added my touches on how to play the rhythm here and there, but there are still lots of parts that George and Baz agreed."

Does being parachuted in to take over a show present its own problems, even if you've worked with the artist before? "The key was to create the show in ESP Vision, which meant I could 'virtually' watch what was happening on the stage video screen in the lighting software modelling program. To achieve that took two devices - a VGA scan converter the video guys gave me, and a VGA compositor which allowed ESP to know what to size it to. So I'm running QuickTime with time code from the show track; when I see the colour change on the video screen I can stop and modify the lighting cue. It's graphical eye candy with lighting to match."

"There is a third element - there are cameras on the tour and video director Richie Shipman tends to blend IMAG pictures into the graphical image, but again these are often colour-keyed to the overall image. I also have some content off a Catalyst that drives the RGB LEDs built into the stage set (narrow single row strips inlaid into the horseshoe decking by TFL), and the VersaTubes (deployed vertically as cover for the orchestral music stands). It's just a way of adding animated mood to what's already prevalent. Mostly the Catalyst looks at external input from Richie and puts it across the floor."

The console is a GrandMA2: "I have a pair of them and although personally they're not my first choice of console - I'm more a Hog III man - their network reliability is fantastic; if one console goes off-line the other takes over without so much as a flicker seamless. I just hope that soon you'll be able to import different focuses determined by different trim heights."

What of lighting the musicians and artist? "There are two main elements: 66 VL3000 Spots on curved trusses across the rear with another six on the floor, and clusters of Martin MAC 301 LED washes that work more for effect than stage light. The Vari*Lites are used very subtly. As George is not a fan of top light they are used instead for movement toward the audience. There's no foundation of 'air' washes. What I'm going to do is put [Color Kinetics] ColorBlast TRX as up-lights on the orchestra, that's where he wants to see the colour come from."

There are approximately 60 x 2ft sections of TRX already providing the up and down light on the front truss and front stage Austrian scalloped boarders. "My main light from the side comes from a pair of horizontal trusses with rows of six Clay Paky Sharpys on each (two either side of stage) and 11 Martin MAC 700 Spots on the floor. These he's more comfortable with - he especially likes the upward fans from behind."

Richard did admit these rules from George meant he had to work all the harder with the side lights, just to keep it varied. "It can get repetitive, so I'm



still trying to find new ways of using them. The Sharpys do most of the work. Besides that I just have four lengths of PixelRange PixelLine beneath the stairs and 10 fourlight Molefays for audience above the front truss. These are important, particularly for the audience interplay in the last section of the show when he performs his more well-known hits."

There are also followspots, a pair of Lycian 2500s on the truss, and Robert Juliat Lancelots in the house. "He does understand the need for key light for the IMAG. We try to get the house spots as far off to the sides as possible, though not here, where they're straight on. The Lancelots are very green so I'm using half CTO with Full minus Green, plus a 0.3ND on house left; 0.6ND house right - the cameras tend to shoot him from stage left. George takes a recording from a lockedoff wide camera each night and scrutinises the show. And yes, he does ask for things: at this point it's very nuanced, it's about finessing the look of a song.'

So it is that lighting passes almost without comment, this is much more about theatricality in its most precise sense, providing a dramatic environment for the show without being a show in itself. If I were to be really picky, I'd say it's too dim. The Chaos WinVision video screen behind (7.8m tall by 22.8m wide - roughly 170sq.m) is more than powerful enough to cope with much brighter lighting, but it remains a fact that George Michael has eye problems (he wears tinted lenses all night) and this is the way it is always going to be.

Sound

This is the second tour to my knowledge where Andy 'Baggy' Robinson, with support from the good people at Wigwam, has pushed the boat out technically to ensure the live audio matches the aspirations of his artist. Gary Bradshaw does a lovely job out front, Simon Hall keeps band and orchestra happy and in touch, while Robinson nurtures the star's own listening environment. All are dependent upon the audio infrastructure Robinson has contrived.

In some ways, you might imagine the people at DiGiCo must sweat every time Robinson calls, but then they have sold four SD7s to Wigwam on the back of it. Maybe it's Chris Hill at Wigwam who should sweat, but whenever I talk to him about George Michael he seems to be loving every minute.

"You should see what's going on out here in Prague," he said to me from rehearsals back in August. "Just amazing." Hill is one of those men who can smile and frown simultaneously, and then transmit that expression down the phone. "Don't ask," he said, chuckling. If rock'n'roll was just about renting gear, men like Chris Hill would be long gone; maybe too men like Dave Webster at DiGiCo; but they're still here because this 'stretching the limits' stuff is what makes it fun. But to front-ofhouse first. Baz Halpin, LD

I took the opportunity to call Halpin, currently out in Abu Dhabi working on 'Project A' (the one we all know about but shall not speak its name). I asked him about the origins of his design. "I was approached by Ken Watts - he and Chris Cronin had already done the stage design. He initially sent me some reference material, such as the concert George had done with Pavarotti when he performed live with an orchestra. As it happens, I was familiar with the intended style - I had bought a copy of *Songs from the last Century*, so I had a clear idea. I also knew that George doesn't like anything too complex or busy. I kept it uniform, the curved trusses enfold the artist, as he in turn is enfolded by the orchestra below; the rows of VL3000 on those three rear trusses emphasise that curved line.

"When we first met, George was focussed on the video content. He liked my renderings, the [Barco] VersaTubes on the music stands rather than have the orchestra playing in a black hole, and the pantographs for lowering the 301 clusters. The show is full of subtlety. Although the music is of a mood, there are dynamic episodes, and when they occur the Sharpys on the floor and flown at the sides punctuate that perfectly. The ones off to the sides enable the stage to gain width visually for those numbers that need it, like Feeling Good or Buddy can you spare a dime?.

"The MAC 700s on the floor upstage are there specifically for their effect wheel. Fixtures hidden upstage kept the stage appearance clear and clean, but add a lot of options. George had seen my Sade show, he liked the cleanliness. The choice of VL3000 for the major work on the orchestra is built on his impressions from that show, and the fact it's a good, stable work light. Mix them with a wash light on this show and you wouldn't be able to use them at the same time, the music just isn't that busy, so having VL3000s alone was enough and maintained that clear, unfussy look. If you listen to the show, the orchestra are there on every song, the arrangements are the same, all done by the same person: I have to treat the lighting palette in the same way; in that sense the VL3000 carry most of the show - they're the string section, while the Sharpys are like the brass, providing the dynamic input."

And what of the visual content? "Any show you do with an artist who is engaged at a visual level is fantastic; right or wrong it's their show. George found the Sound Spectrum guys on the internet. Yes we had our reservations - you need experienced professionals who understand live shows to build content - these guys had founded their business on developing Apps for iTunes. But in the end a lot of what they have done is really beautiful and unlike anything else you've ever seen on stage before. Their stuff is designed to be spontaneous, but here was George pushing them to adapt their stuff to be bigger and to work to a cue, and they've done a great job."





Crew List

Management Ken Watts - tour director Lisa Johnson - assistant tour director Holly Sandeman - production coordinator Dennis Gardner - production manager

Crew

Rik Benbow - stage manager James 'Frommy' Kelly - show manager Harry Hughes - ASM Andy Henderson - drums & perc tech Aidey Dessent - guitar tech Kerry Hopwood - pro tools Nick Sizer - keys/orchestra tech

Audio

Gary Bradshaw - FOH sound engineer Andrew 'Baggy' Robinson - GM monitor engineer Simon Hall - band monitor engineer Don Parks - FOH system (Wigwam) George Hogan - RF/monitor tech (Wigwam) Conor Dunne, Ralph Smart, Nick Mooney - PA techs (Wigwam) Niall Flynn - record engineer

Lighting

Benoit Richard - lighting director John Shelley-Smith - lighting crew chief Luke Radin, Jim Mills, Katie Flanders, Martin McCloughlin, Adam Mogan - lighting crew

Video

Richie Shipman - video director Andy Tonks - crew chief/LED tech Al Wright - LED tech Bob Stansfield - LED tech/cameras Bruce Selkirk - LED tech/cameras Dean Ruffy - LED tech/cameras

Visualizer/Creative Content

Michael Figarelli - visualizer Paul Brower - visualizer

Rigging

Steve Walsh - head rigger Jules Grommers - rigger

Carpenters

Mike McGuire (Head Carpenter), Jem Matthews, Jean Pierre Van Loo

Catering

Simi Donald (Head of Catering), Darren Staats, Dave Pascoe, Jules Pascoe, Jessica Mayer-Jones

"I'm mixing approximately a hundred channels," says Gary Bradshaw, "many of the orchestra instruments are double mic'd - cellos and double bass, for example, Add in a ten-piece band. three BVs and a touch of Pro Tools and it soon adds up. The whole show is orchestrated, except perhaps one or two songs; he finishes the show with acoustic versions of some of his classic pop songs, just him and guitars. I get the whole orchestra to me as separate channels except strings, which I take from Simon Hall [orchestra monitors], who provides me with stereo sub-mixes. There is no orchestral percussion. The band consists of the same musicians who recorded the album with Phil Ramone producing. He's been out here quite a bit. Ramone is one of the world's top producers and I admit I was a bit nervous to meet him at first, but he's been really helpful. He told me what he tried to achieve in the studio. He'd say things like, 'try putting the cellos higher in the mix'. With him at rehearsals my orchestral mix came together quite quickly."

Is there some sort of imperative to achieve studio perfection on tour? "Interestingly it does change; the vocals are entirely live and we started by trying to put them over as something that closely resembled the Air Studios recording. But the fact is one or two songs, when performed live, needed their arrangements changed - so in that respect it's all become very live."

The orchestra are quite tightly packed, and the backing vocalists are stationed immediately in front of the band percussion; imagining a light level delivery with a lot of open mics on stage: I wondered about spill. "The only real area of difficulty is the flutes, with the trumpets immediately behind. The strings all have DPA 4099 which exhibit great rejection; when we sent the first live recordings to an engineer in the US he immediately asked, 'what mics are you using?'. I'm using very little EQ and getting tons of gain. With the bass and cellos I also have those Schertler flat stick-on mics for the low end. Horns are [Shure SM] 58s, 57s on the woods, the flutes take Neumann 184. Drums and percs is all pretty standard Sennheiser; I'm using their clip-ons for the Congas. All the backline is off stage and DI'd; guitars are all clean. The piano at the front is played by MD Henry Hay; it triggers a Yamaha module off

stage that provides several different sounds. For vocals, the BVs have Sennheiser SKM 5200 with the MD 5235 dynamic capsule. George has the same hand-held radio unit with a KK 105 capsule that's great for his voice; the BVs' capsule is more suited to their proximity to the band, where spill is an issue. Overall, it has proved a lot more straightforward than I first thought. There's lots of dynamic variation from the musicians; the PA is sitting at around 93/94dB, and with lots of space in the arrangements I don't have to do anything."

Bradshaw is fresh from the Take That tour stadium pop presented with a creative and effective solution to sound distribution through a mass of well-positioned Martin gear (see LSi July 2011). Now, he has an arena system of J Series from d&b audiotechnik. "This PA is just so good for his voice and this music. You can hear all the detail everywhere in the room. This is sitting down mixing, there is almost no PA EQ even with all those open mics. I do group the band and apply an overall EQ on them; otherwise it's all pretty flat. It's what Baggy has done where the complexity comes in. We've got four SD7s all on the same optical loop; we share gain I have a Lexicon 224 for his voice and use rich plate, otherwise all clean - oh, and some tempo delays from the desk. The whole system is really hi-fi - Wigwam did a great job on the last tour and they've done it again this time."

The difference between Take That and this is like comparing a power boat with a four-masted schooner. The fact that Bradshaw can switch from one to the other with such aplomb underlines his abilities; a more quiet, understated and capable engineer you could not wish to meet. It's about time engineers of this calibre - and there are quite a few out there were sponsored by Live Nation or whomever is promoting, to take younger upcoming engineers out on a 'Sorcerer's apprenticeship' tour.

Monitors

Andy 'Baggy' Robinson, as his nickname suggests, is the most affable and laid back of audio men, yet here he is presiding over an inherently complex audio system. Why the need for structural expertise?

"We're actually processing about a thousand channels of audio. When we first knew of the orchestral content to the show Simon Hall and I spent two days in a hotel and thrashed out the patch. There was really no lead time or production set-up - as we had at Wembley Arena for the 25 Live tour - becuase the band were busy recording the new album. So locking ourselves away in a hotel and spending the time anticipating every scenario was the only way. The show was already scheduled to pass through different venue types - arenas, concert halls, opera houses - how things would have to work would vary, but what we couldn't afford was for a show this complex to re-patch from venue to venue to suit needs. Our plan had to work everywhere." And the fundamentals of that solution? "Simon has one desk for the orchestra and one for the band. I have one for George music and effects." There are three SD7s backstage, but I spotted a Midas to one side, "George's vocals stay completely analogue; he has great ears and even a two millisecond delay

doesn't escape his attention." That's hard to imagine? "Don't forget, even a short delay like that can end up changing the EQ in the ear."

"In anticipating how many and where to place stage racks, we imagined the longest channel list we'd ever need; the orchestra rack and their headphone amps are one entity so they can be placed for regular stage positioning, or placed in the pit at a concert hall or opera house. Using an Optocore loop the orchestra could, in theory, be up to 150m from the stage; certainly running fibre to the pit works very well. We have four stage racks in total, the fibre loop could support 11; that's something just not possible on the last tour. The new SD racks make having four desks on the loop possible, and we can choose which desk has control over which fixed channels. We can't quite get all the necessary inputs onto one desk, so for example Gary and I can't fit the different departments of the strings; we take sub-mixes from Simon instead. Simon manages gain - we're all adults here - that works as a structured platform for everyone."

And how did that hotel brainstorming work out in practice? "By the time we got to Denmark where we stopped for 10 days, we didn't have to change anything, just take a few things away. We learnt a lot from doing it, fortunately we are not challenged on budget; there are not many shows where you can specify four SD7s."

Simon Hall adds: "There are 11 permanent members of the orchestra, with the rest from orchestras in Europe and the UK; the musicians from Prague where we started, did most of the European dates. The orchestra monitors are split over 20 mixes so big changes take time, they all have their own mixes, including the conductor, but in fairness although there are peaks it's mostly a steady state. All have a wired in-ear feed with local level adjust function; it's a Canford Audio system with Lab.gruppen amps. For the band they're also hard-wired in the static state, I use the Sennheiser 2000 series wireless IEM when they move down stage for the acoustic finale."

Sennheiser provide tour support with the redoubtable George Hogan sifting the airwaves to keep those radio units cleaved to the most favourable frequencies.

"Mix management is fairly obvious," continued Hall. "A stereo mix for the lead violin, then another mix for all the other first violins, same through the second violins etc. The band and backing vocalists all have their own mixes, I also mix down-sub mixes between my two desks, because as well as feeding subs of the orchestra to Gary and Baggy, the band is sub-mixed to the orchestra feeds and vice-versa. That's why I needed two desks: when you start adding up the outputs you just can't fit it all on one desk."

Is that as difficult to manage as it sounds? "The fact is, we have done shows without soundcheck; the recordings from the JoeCo kit Gary has out front are what has enabled us to do that; the BlackBox units are on every night and unlike other recording systems they're an uncomplicated, hassle-free, solid device."

Production

Dennis Gardner started the tour as both production manager and lighting operator: "He'd be unloading the trucks in the morning, directing things all day, and then go and run the show and load out," said Halpin on the phone. "A man with an amazing capacity." I asked Gardner how managing a touring orchestra panned out. "The core soloists are from the UK; for the pick-up musicians it's been largely the Czechs in Europe, Irish and English here and in the UK. Yes it does take some organising, but in every sense carrying our own principal musicians makes it all a lot sweeter. Probably the biggest element for me is PA; there is a lot of it, not because the show needs to be loud quite the opposite actually - but it's all about coverage. The sound is the show and if you're going to deliver without blowing people's heads off, then you need speakers. We also insist the front-of-house position is between 31m and 33m from stage. In terms of gear and people, these are the best and the sound is pristine. The camera positions also require careful attention, it's not rock'n'roll, you can't plonk them exactly where you'd like; this is a seated audience and it requires consideration."

Watts mentioned the masking: "Yes, we do spend what some might think an inordinate amount of time on dressing the stage; we make it so no single member of the audience can see backstage. We've even had custom tab-tracks assembled for the Albert Hall and Covent Garden shows. We spend a lot of time on the detail."

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Video

Video is such a dominant part of this show, it's no wonder a lot of attention is paid here. The screen is curved, concave across the centre of stage, and rolls off convex at each end rather in the fashion of a scrolled document. Affectation? In the O2 Dublin certainly not - the shape allows a more visually fulfilling view for the audience at the extreme edges of the auditorium. This is a very wide room so although the benefit may be less pronounced in more conventional rectangular arenas, it still means the 180° presentation is never visually compromised. Consider the experience of an IMAX cinema: this is somewhere between that and a flat screen presentation.

"The system is 9mm pitch WinVision," explained Andy Tonks on the video crew. The screen is suspended from Video Truss built by TFL. Winner of an Innovation Award at this year's PLASA Show, it is co-designed between TFL and Chaos Video; US director Nick Jackson having spawned the original idea. In simple terms it's an inverted triangle truss with an 'I' beam on the upstage cord that facilitates a beam trolley with bosun's chair-type apparatus to allow easy and safe access for technical repair. How's it working out in practice? "Because of the curve we have five little half-ton CM Prostar hoists to cover the whole truss, although the screen is mounted curved, the truss is straight sections with little angled bend-connectors, so the 'l' beam is not continuous. For working on the lower sections, we just pull ourselves up into position manually. The WinVision stuff is very good - I think we've had just four or five faults in the 37 shows we've done so far. That's down to packaging: on that side of things Chaos are brilliant, their equipment is better packaged than any other I've ever toured with."

Tonk's fellow video tech' Dean Ruffy added an interesting comment: "There's nothing idiosyncratic about the way they package; often you find things that work well for one person but not another, but this Chaos system works for anyone." He liked the truss for another reason: "The weight saving from not having a structural

support for the LED modules allows us to hang a very large screen in places that wouldn't normally have the load capacity."

The screen modules are actually subbed from VER but the cameras and PPU is all from Chaos: "It's one of the biggest I've toured with," said Duffy. "We've got two quad splits just to the monitor desks." So those two monitor men marooned backstage can see what's going on from multiple POVs. "Plus feeds to the Pro Tools guy, stage manager, and the autocue. It's based on a Blackmagic 3G Hi Def router - basically 64 inputs 128 outs. I can send any feed to the monitors, even a close up, independently. The Blackmagic is really good and we can go 150m with full HD without re-clocking; normally you'd struggle to get 50m. We use d3 from UVA to screen map the content from Sound Spectrum. Richie Shipman (director) is running at 50 frames per second, 2432 by 832 pixels: that eases the burden on the processing and keeps the whole thing stable and looking very sexy."

Head rigger for the tour, Steve Walsh, was sat at home basking in the warm glow of a new-born baby when I visited Dublin. He did, however, have some useful comments on the new video truss. Does it further the rigging profession and provide real positive benefits, I asked? "It does.

This is the first iteration and I fully expect to see more in the future. First out it stacks, the whole truss for this tour is just two dollies. It's also fast to put together, though in the future I'd like to see pins instead of bolts to make it even faster. From a health and safety point of view, the I-beam trolley across the rear addresses the issue of access for repair head-on; and let's face it, there's always something that needs doing to these screens. For me, as a custom truss designed for dedicated purpose, it's fantastic and ticks all the boxes."

I mentioned that Andy Tonks felt it took as long to reach and repair as with the old method, scaling the structural framework used behind other screens. "Maybe, but then this way is safer and we're not flying all that additional weight of a sub-structure to support the LED panels. What we've found on tour is this: Nippy Industries trained all the guys on using this truss before the tour - they've all been taught how to ascend manually for rescue purposes. When you use the little ProStar motors to take you up you're still attached to the [Petzl] ASAP fall arrest and rescue line. For the lower repair jobs the guys are tending to just ascend manually they're still attached in two places - ASAP and rescue - and that saves the time of powering up the motor. For the higher reaches I think they all



Left: Baz Halpin's lighting plot showing the main overhead rig. Below: Previsualisation of stage and screen.

prefer to be hoisted up." The fact Chaos took it upon themselves to have the guys trained says something about acceptance. "As I said," concludes Walsh, "it ticks all the boxes; why wouldn't you use it?"

Director Richie Shipman has seven HD cameras and a full content show to corral. "The content is very highly detailed," he began. "There is, for example, a graphic that resembles a space station, every little bit of that image grows synchronised to the sound." To say the content resembles often completely irregular expanding fractals of complex 3D spatial shapes is barely adequate; sometimes it's like watching one of those slow motion movies of crystals forming.

"Literally, points of light are choreographed to a visual representation of the music; it is an incredibly sophisticated sound to light," says Shipman. Live camera shots are also inserted into the graphic: "We also pre-shoot stuff George likes and put it in live. With largely static musicians we can shoot angles that would be very intrusive were we to do it live during the show, and then blend them into the show."

This was a particularly gratifying sleight of hand: the black screen bleed-ins never overtly posed the question, 'he's not bowing the violin like that', in that there was no conflict between what you could see on stage or on the screen, though you might ask 'where's the camera' if you thought about it. "Yes it's naughty, but that's what technology is for." Shipman is an entirely pragmatic director who doesn't let considerations of artistic sensitivity interfere with his robust view of what's required. "It's like Pro Tools for camera." And why not?

What are the origins of the content? "George is really heavily involved - it was he who found Sound Spectrum, which generates all the content. Imagine that, he found these guys that basically provide an App for iTunes - not your typical source for a four million dollar LED screen. But he scrutinises everything, he knows how to edit video and he knew what he wanted to achieve. Invariably it works."

The content is an evolving process, both on and off screen As such Paul Brower from Sound Spectrum is on the tour: we spoke briefly. "Even though we work with performers, normally we just licence our software, so this is unique," he began. "George used a package of ours last tour, but this time he wanted highly customised graphics. We take feedback from him and about once a week changes are involved. It's easier for me to be here and work around the guys; I do the work on a Mac Book Pro, render out the video and then give it to Richie. Our software comes with many pre-packaged visual scenes; you might have seen some of them (licensed) on the recent Peter Frampton tour. With George it's been really stimulating to work with such a hands-on artist; the fact he knows what he wants and is explicit makes the working process

easier. He might not be a software engineer, so he's not hampered by considerations of the software's limitations, but he has laid out a blueprint and if it's possible we will make it work. Some ideas did at first look improbable; now we have reconsidered. He has pushed us in quite a few ways; he's forced us to reinvent our approach to visual ideas."

Conclusion

A good show requires light and shade; this has them both but, for my taste, too much shade, I visited two hotel bars and a river boat saloon after the Dublin concert (all in the line of duty, you understand) and spoke at length to many concert-goers. All expressed the same dissatisfaction: 'Too many smoky ballads, not enough pop'. Some even declared the show "boring" - though these tended to be boyfriends dragged along by their partners. The ladies, easily in the majority, were more forgiving. "He sounded beautiful. He sings better now than he's ever done." In fact, the praise for Gary Bradshaw's mix was fulsome from all guarters; a flattery he fully deserves to hear. George did produce a really spirited rendering of the Nina Simone classic Feeling Good and his performance of Buddy can you spare a time? was truly monumental in climax, so the light when it came was emphatic. If you want to sample before you visit (there is talk of more concerts next year), try his sadly neglected album Songs of the last Century: if nothing else, it's one to add to your list of highly articulate and dynamically rigorous recordings ideal for voicing out a PA before sound check



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