







Who would have thought a US television programme from the sixties would still have currency in the year 2003?

As Ruth Rossington discovers Star Trek - The Adventure is more than doing the business.

Whether you love it or hate it, there's no denying that Star Trek is a phenomenon, and a massive multi-billion pound one at that: five television series, 10 films and God knows how many final frontiers crossed, and still we can't get through life without reference to warp factors, phasers and Vulcan death grips.

If you're a Trekkie, then Star Trek - The Adventure, a temporary exhibition, currently anchored in Hyde Park, is pure manna from heaven. Packed within are fully recreated sets (including the Bridge of the original Enterprise and the Transporter Room), costumes, props, video screens and four massive simulators, which all lead to a centrepiece tour of Captain Picard's Starship, the Enterprise-D, and a mind-numbing virtual battle with the Borg.

Covering more than 7,000sq.m, The Adventure has all but colonized the north-east corner of Hyde Park, and is the biggest event of its kind there since the Great Exhibition of 1851. That it's there at all is a minor miracle - the logistics behind it are enough to make grown men cry (and probably did).

But before we boldy go (sorry, promised myself I wouldn't do that), we need to back up a bit to the mid-1990s, when a previous incarnation of the exhibition was built in Germany. When it finished its run in 1996, the entire exhibition (including its audio, lighting and AV systems) was bought - unseen - by LA-based SEE (Special Entertainment Events Inc) and then mothballed in 138 x 40ft sea containers parked at Hamburg docks. SEE secured permission from Paramount (the owners of Star Trek) for the rights to stage a new exhibition under licence - which would be a revamped version, incorporating most of the existing exhibition, but significantly expanded with various new sections.

The UK is the biggest Star Trek market outside of the US (incredibly

sense to look to London as a location, and therefore to recruit UK promoters Triple A to provide the local knowledge. Negotiations then followed with the Royal Parks agencies to secure Hyde Park as the venue and the deal was eventually signed in July last year. With the blessings of all concerned finally obtained, the race was on to meet the projected December opening date.

From a technical point of view, the man given the job of making the interior exhibition happen was John Tomlinson, SEE's technical director of operations, who took on the mammoth task of translating the old exhibition to its new format. He set to work with Nick Levitt and Tony Wheeler (of Nine Yards), both appointed by Triple A - Levitt as the senior technical production manager, and Wheeler to manage the site.

And this is just the tip of the complex family tree that lies behind the exhibition. Also brought in by Triple A was Roger Barrett and the Star Hire team, who were appointed structural consultants, initially to bring their expertise to bear on the large temporary structure housing the exhibition (at 50 x 30m, it's the biggest Tensioned Fabric Structure - or TFS - ever built in the UK by Arena Structures), but ultimately to advise on a range of technical and site issues as they arose. (All the site safety issues, other than the alarm system were devised and overseen by MRL Operations (who also do Party in the Park, Radio One etc).

Planning permission was the first thing needed, so Star Hire set about collating the relevant information, scanning Ordnance Survey maps of the Park, and overlaying them onto aerial photographs, to provide accurate scale drawings of the exhibition. Computer renderings of the structure were then added to generate a 3D visualization, and all the relevant documentation and design work was uploaded to a password-



Title page and left - various elements of the walk-through exhibition. Below, John Tomlinson of SEE (left) with Roger Barrett of Star Hire. Right, Orbital's Seb Frost

One of the early issues to be addressed within this process was the final positioning of the structure, a matter of some concern (the exhibition was expected to weigh several hundred tons) since it was to occupy the same corner of Hyde Park as an extensive underground car park. So far, so easy you might think, except that nobody could be quite specific about the actual extent of the car park, so it wasn't clear how much of the exhibition would physically sit above it. Anxious to avoid making headlines by being the first event in Hyde Park to sink without trace, Star Hire thus went back into research mode, raiding archived records to determine the exact parameters of the car park, to allow them to rotate the exhibition footprint until the least amount sat above it.

With the paperwork trail more or less complete, and the go-ahead gained on all fronts, in October contractors started moving onto site, ready to clear it for the construction of the TFS. Meanwhile, in Doncaster, the 138 containers storing the original exhibition were arriving at the former RAF base in Finningly. Only at this point did SEE get to find out what they'd bought, and it wasn't an entirely pretty sight. It soon became apparent that many parts of the original exhibition were in need of upgrading, repairing or plain replacing if the show was to be delivered in its envisioned new format.

Experts from across the UK arrived to assess the situation - among them Orbital Sound, UKE Media and XL Video - brought in to revamp the audio, exhibition lighting and AV equipment respectively.

The Orbital team, led by Seb Frost, set to work. The audio systems - a combination of



Bose and Aura speakers, Camco amplifiers and a Peavey MediaMatrix for distribution—were in a better than expected condition, but still in need of essential upgrading. (Curiously, there was a duplicate of just about everything in the main system). Two of Orbital's engineers, Keith Barnes and Steve McEvoy, spent the weeks that followed reterminating cables and re-racking equipment. The software fared less well, and had to be completely rewritten, providing an opportunity to double the capacity of the MediaMatrix—an essential given the scaling-up of what it would have to deal with.

UKE Media found the exhibition lighting in pretty good condition, the main task for them being the replacement of the individual fixture's lamps. As with audio, there were duplicate sets of most elements which were quickly diverted to provide the display lighting for the new sections.

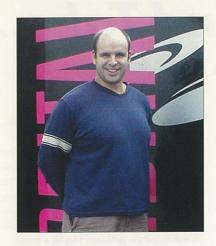
Stuart Heaney and Quinton Willison of XL Video were also in Doncaster assessing each piece of AV kit as it emerged from hibernation. The existing gear consisted of some spectacular relics from the early days of digital video projection. XL converted all the

show's video, plus the control system to SDI digital. On the hardware side, the company replaced all the old composite video devices - the majority of which were Sony (karaoketype) laser disks - with MPG 2 players, supplementing them with 29 new Blade Pro 2 DVS machines for the job. Whilst in Doncaster, Willison also wrote the new show control software, still based on the original AMX control system, but revised to be capable of controlling the entire exhibition's audio, lighting, AV, mechanical and automation cues.

Meanwhile, back in London, the structure was coming together - 20 articulated vehicles, a 120-tonne crane, two all-terrain forklifts and a hydraulic platform herding it into life. Roger Barrett and his team were wearing out more calculators, this time concerning the load-bearing of the floor of the structure, which needed further calculations, adjustments and reinforcement, before it was capable of supporting the extremely heavy exhibition sets and 12-ton simulators. Sister company Star Rigging were likewise calculating the maximum load-bearing possible from the structure's roof and installing all the rigging points necessary.

With the mainframe structure and all the rigging completed, the now refurbished exhibition in Doncaster was de-rigged and transferred to Hyde Park. As it was being installed, the new elements of the exhibition were being built around it. The weather, however, was unforgiving - two weeks of solid rain rendered the site a bog, and whilst some of the heavier sets were being jacked up having sunk into the mud, walkways, drainage channels and sumps were being hastily installed to prevent further problems.

Of the many set design and refurbishment companies working on the project, perhaps the plum job landed in Stage One Creative Services' lap. One of the signature pieces of the new exhibition was the aforementioned replica of the bridge of the original USS Enterprise. Working from original drawings and photographs, the company used CAD and CNC manufacturing techniques, to create the reconstruction of Kirk's famous bridge. On another bridge - this time the Jean-Luc Picard version - Seb Frost of Orbital



was to be found working with the stream of original Star Trek sound effects handed to him by Paramount. Armed with a Pro-Tools workstation, and facing the uphill challenge of making all the soundtracks show-ready (it turned out to be a massive studio project), he entertained himself on those long days by answering his mobile "Enterprise Flight Deck."

By now LSD/Fourth Phase had also joined the hoard of contractors on site, adding in the layer of general lighting that would complement the existing exhibition lighting (mostly dimmable fluorescents, Par 20s and Par 56s). ETC Source Fours provide the mainstay of this rig, rounded-out by miles of 1k Pars, High End x.Spots and Rainbow colour changers on softlights, with Avolites, LSC and

Lichtechnik providing the dimming specification. The exterior lighting for the TFS was also down to LSD who, working to a scheme designed by LD Simon Sidi, drafted in MAC 2000s and City Colors (run from Icon software on a Mac) to create the colour washes that lift the venue from its setting.

XL Video, for its part, was now engaged in matching the AV system to the extended exhibition. To the original inventory, the company now added two Barco ELM projectors, seven Barco SLM projectors, a Barco 6400 projector, 22 Pioneer plasma screens, plus a further four Barco 701 CRT projectors for inside each of the four flight simulators.

Since large numbers of visitors were anticipated, safety was essential, and Roland Hemming of Live Business International was called in to consult on the voice alarm system. His basic challenge was putting a temporary system in a temporary structure, which nevertheless had to meet the health and safety requirements of a permanent building. Rejecting larger quantities of more conventional voice alarm loudspeakers in 100V-line configuration because of the constraints imposed by the structure, he opted for a Turbosound system to give him the wide dispersion and high power handling that he was after. Hemming thus specified 12 Turbosound TCS-40 enclosures, configured in two rows of five loudspeakers, equally spaced

along the tent's 150m length, with a further two TCS-40 units located in reception. TMC-T1000 amplifiers drive the loudspeakers, all controlled by a BSS Soundweb, with dual UPS systems providing battery back-up.

Thanks to the scale and duration of the event, the power requirements are substantial. Power Logistics provided all the generators, power distribution and on-site expertise. Director Terry Hamilton managed the PL team throughout the build, routing the complex power distribution underneath the temporary floor. 1,250kW of power is running the main structure, and there are two 18,000 litre fuel tanks sited next to the generators, which along with the six venue heaters (the structure has to be climate-controlled to protect the exhibits), consume an incredible 55,000 litres of fuel every week.

The end result is an exhibition of some complexity - in fact much more so than many permanent installations - the driving force of which is the show control system, running from video servers and multitrack audio. When the exhibition closes at the end of this month (two months after originally intended) SEE plans to send it on a world tour, lasting five years. And for anyone who's been worrying about the punishment Hyde Park has taken in all of this, fret not. Once the exhibition moves off, work will start on the renewal of the turf, which will be paid for entirely by promoters Triple A.

