

L&S visits the UK's largest independent television studio facility which provides services to the main broadcast networks, as well as international clients and independent producers



FOUNTAIN STUDIOS

Chris Cooper, Fountain Studios' chief engineer talks about the place with a fondness and affection similar to that of proud parents expanding about their kids. He knows the building intimately, having arrived at the Wembley facility in 1988 when it was owned by Limehouse Studios.

When Limehouse went into receivership in 1992, Cooper was initially asked by the receivers to stay on as caretaker until a new buyer could be found. The studio was then acquired and taken over by Fountain, who at the time were operating out of a much smaller studio in New Malden, Surrey. Fountain also asked him to stay on, and when their incumbent technical director departed a few years later, Cooper took over as chief.

Studio manager Anthony Edwards was 'home-grown'; recruited in 1993 when Fountain took over, he's worked his way up through the ranks. Together, they head up the energetic technical team spearheading Fountain's operation.

Fountain has two identical 6,500sq.ft studios. A unique feature of the building is that the studios are divided by a massive motorised, soundproofed door which, if required, lifts to combine the two into one capacious space of 13,000sq.ft. It's the largest purpose-built TV studio facility in the UK - and possibly in Europe.

Two things immediately strike the visitor - there's an unmistakable buzz about the place and secondly, it's very friendly. With the trooping of stars and celebrities through its portals an everyday routine, Fountain retains a grass roots accessibility. The essence of any

creative and collaborative space is that it should be relaxed and open - something Fountain appears to have taken on board and striven to cultivate.

The studio is one of the busiest and most dynamic top-end independent television studios in the country. Cooper explains enthusiastically that the aim is to cater for all types of show - from drama to current affairs, quiz shows to sitcoms, soaps to large light entertainment (LE) and music shows. They currently have a regular slot hosting the National Lottery Winning Lines show - which utilizes the large studio - and are stacked out with a plethora of other shows and series' for a wide variety of production companies and producers.

Fountain was also used for the first series of *Who Wants to be a Millionaire* - again their full space won them the contract as it did for *An Audience with Ricky Martin* for LWT. Recent quiz shows recorded there include the last series of *Greed* with Jerry Springer whilst currently, the sitcom *'Kumars at no 42'* for Hat Trick Productions, is in residence.

Versatility is the order of the day, an element directly reflected in Fountain's technical facilities. "We definitely don't want to tie ourselves down to only working in one way," states Cooper. Any equipment the studio has invested in must be changeable and reconfigurable for different shows and uses, and the entire technical infrastructure has been constructed to do this as quickly and efficiently as possible. They could have a regular show like the Lottery in every Saturday, and on Tuesday and Thursday, have something totally different.

Since 1993, the shows have steadily grown in size and technical demands. Cooper explains that eight years ago, most shows featured four or five cameras, whereas now most use between 8 and 10.

The other big change has been in the use of moving lights - a rare phenomenon eight years ago, and when they did make an appearance, it was primarily as special effects in music shows. Now moving lights are de rigueur for most LE shows - anything from a dozen up to over 100 for the larger productions. With this comes the requirement for specific moving light desks and operators.

Fountain has no in-house moving lights for obvious reasons - they want to be able to provide exactly the fixtures requested by individual lighting directors. They've also been wary of investing in a fast-moving market where fixtures go in and out of fashion quicker than alcopops! Instead, Fountain deals with all the major moving light rental houses including Richard Martin Lighting, ELP and Vari-Lite, renting in to spec.

There's a good stock of generic TV lights - the versatile Giano hard/soft combination light sources, 5Ks, pups, blondes and redheads. An electric winch system runs across the ceilings throughout the two studio spaces, giving access and roof rigging points everywhere they are needed.

Fountain has just undertaken a major new refit of the studio's dimming system, which now features a



dimmer installation. This was supplied and fitted by Compulite's UK distributor, Stagetec. Fountain were very particular about their dimmer requirements - with flexibility to the fore as usual. They wanted high-spec, modular digital technology.

The new dimming systems are virtually identical for both studios, each consisting of 360 channels of 5kW and 12 channels of 10kW CompuDIM 2000 modules. Lighting in each studio is controlled from the existing Strand Galaxy consoles via D54 to DMX converters and Compulite SP-4D rackmount controllers. The SP-4D controllers enable the dimmers and the whole studio complex to be controlled via Ethernet, as well as providing detailed status-reporting information from the dimmers to the control rooms.



Above, the Compulite Sparktop console and right, CompuDIM dimmers

The CompuDIM's status reporting capability was fundamental to the choice of dimmers. A main requirement at the studios is to be able to connect a moving light to any outlet in the building and switch this to hard (as opposed to dimmed) power. Compulite added this customised feature to their 2 x 5kW modules for Fountain - as a bypass circuit breaker.

Cooper explains that they were also determined to ensure that the new installation offers future-proof technology, capable of providing high quality lighting for many years to come. With this in mind, Stagetec specified a complete DMX and Ethernet distribution system which now permeates the whole studio complex. This was installed by Fountain staff and terminated by Stagetec, who also routed all the necessary data cables and ran mains feeds to the new dimmers.

Compulite DMX splitters are permanently fixed in the control rooms with portable units available for use on the rig. Compulite E-Mix Ethernet nodes are also installed in the control rooms with portable nodes available on the rig. The Netserver software runs on a PC in the control room, enabling the entire system to be configured via Ethernet, including system status indication and system-wide software upgrades.

Fountain also required the control system and dimmers to be flexible enough to serve either as two stand-alone systems - potentially with a different show in each studio - or as one large unified system with all dimmers - over 800 channels - and DMX/Ethernet outlets controlled from one console. Using Netserver software, this can be achieved in seconds.

A Compulite SparkTOP console complements the dimming system, and functions as a roving desk used for programming on the studio floor or in other locations around the building which are used for filming. A portable flightcased CompuDIM 2000 rack provides additional mobile dimming as required. Naturally, the installation was carried out in an extremely tight window, due to Fountain's busy schedule, executed in two intense bursts of activity with minimal disruption to the studio's ongoing work.

Lighting for each studio is run from its own Strand Galaxy console. Cooper is adamant that there's absolutely nothing on the market



to beat this maverick lighting desk when it comes to TV studio operation. No longer manufactured, second-hand and refurbished Galaxys are like gold dust! Fountain's originally came from Limehouse's Canary Wharf facility, and both have been kept current with all available upgrades over the years.

So what's so cool about the Galaxy? "Channel controls for one," says Cooper, eyeing the desk fondly. The modular construction of the Galaxy is very flexible. It allows FX panels or channel controllers to be inserted at different points in the desk - so the console operator can programme using one section of the desk, while the lighting director can be making adjustments and creating looks on another section - which can then be stored by the console op. "Most desks today are geared towards moving lights," observes Cooper "which is fine, but it doesn't satisfy our requirements. Absolutely nothing comes close to the Galaxy for us."

Sound-wise, for control, Fountain has two Calrec S series broadcast consoles which are virtually identical, again picked for their flexibility. The desk is not directly geared to music recording, but they can still do it. Fountain hosts plenty of shows with live bands individually mic'd up, and the desk has plenty of capacity for mono mic channels and VT play-ins. However, any live music mixes are done in addition to the standard multi-tracked stereo TV mix. This keeps all the options open for those involved in the post-show mixdown/dub.

For live bands performing on the studio floor, they provide a conventional monitor mix with on-stage console, engineer and wedges. For live audience shows, separate PAs are provided for artists/performers/presenters and for the audience itself - to keep the audio entities separate and reduce spillage.

Part of the sound console is usually allocated and operated as a 'grams' desk - the terms refers back to the days when spot effects were played in from gramophone records! Technology has advanced a bit since then, via quarter inch tape on to hard disk recorders, which are now the most common storage medium for 'grams' sources. The 'grams' desk normally provides any high level sources like stings, bumpers into and out of commercials, and background music beds on quiz shows.

Specific effects for quiz shows - such as bells, buzzers and whistles - are all generated from a hard disk player. Usually there's an operator dedicated to spot effects who has all the special effects equipment to hand at their end of the desk. Some shows (Cooper is diplomatically unspecific) still use a 'canned' audience. Here the spot effects operator uses a keyboard to access all manner of audience reactions from boos, hisses and applause to countless types and degrees of laughter which can be skilfully manipulated to sound authentic.

TV studio sound operation tends to work with groups and group levels more than a conventional sound recording situation. For a quiz show, all the contestant's mics might be grouped together so they can be removed when the presenter is speaking - to avoid catching coughing, sniffing or other undesirable noises.

VT has a separate group on the sound desk. The amount of VT play-ins varies greatly, sometimes a single one, sometimes four or five - all with up to four tracks. When doing live shows - by which they mean 'live' to a national or global audience - not just those in the studio, they will often run two VT machines playing identical material. This allows a seamless change should any glitches arise with the first source.

The desks feature a good selection of onboard effects, and Fountain has a stock of standard outboard effects - gates, compressors, reverb units, etc. Any specially-requested items they will hire in, and if they're asked for frequently enough, they will be bought and added to the inventory.



Andy Stone (left) and Mick Cocker of Stagetec (right) with studio manager Anthony Edwards (centre, left) and chief engineer Chris Cooper

The same is true for effects and other source machinery - like DATs, CDs, hard disk players. This technology is currently evolving at such a pace it's hard to keep up. "We keep a keen eye on the market for what's coming out, but we're usually slightly circumspect about being first in the queue for investing in new technology," explained Cooper.

Fountain has eight studio cameras: Sony BVP 570s for lightweight cameras (a hand-held look is popular with music shows) and BVP 500s for full studio grade cameras, although the 570s can be converted into studio/rostra cameras if needed. Specialist lenses are hired in to suit. They also have a selection of mini-cams and discreet (no operator) cameras and the requisite support facilities to deal with them. "They have their uses," admits Cooper, slightly reticently, "but there's no substitute for quality." He quickly puts this in the context of Fountain, which is a high-end studio used by those with reasonable budgets. He's careful not to be disrespectful to the many film and programme makers working on shoestring budgets, who can get creative and innovative results with whatever lower-end technology is available to them.

Camera operators are all freelancers - again giving individual directors complete freedom to bring in their team, but they do have camera assistants on the Fountain staff who rig and prep the kit for incoming productions. Vision mixers also tend to be freelance, booked by the production company. There are eight permanent staff in Cooper's department, and between them they cover all technical aspects for the studios.

The vision-mixing elements at Fountain went digital five years ago, prompted by the growing demand for widescreen shows - now a standard format. The vision mixers are Sony 7250s - ideal for studio work, which generally have less of an appetite for channels than OBs. Again, flexibility is the key; the vision mixing set-up is fully configurable for individual operators - all of whom have different styles and operating needs.

Technically, going digital made a huge difference in terms of the robustness of signal. Once the sources are set up they are a lot easier to re-route and much more forgiving when it comes to processing, timing and matching. "You can change it almost infinitely, and digital signals just sort themselves out," says Cooper.

It's obvious that both Cooper and Edwards have a real passion for the television business. Cooper started, like so many, with the BBC - which proved an invaluable training ground - before moving into the commercial facilities. He's seen a lot of changes and advances flow under the bridge. The obvious question is does Fountain have something unique that's contributed to its success as a production facility?

Cooper feels that it's a fusion of personnel, inter-departmental teamwork and technology that combines to offer good facilities and service in a fiercely-competitive marketplace - to which regular clients keep returning and new ones are constantly appearing. Sometimes 'the BBC' comes out in him, or perhaps loyalty and stoicism are more prevalent in TV production than other performance areas?

The bottom line for Cooper and Edwards is that "The people factor is imperative. It's about attitude. Everyone working here is passionate about their work."



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