

AS THE POWER AND SCOPE OF LIGHTING INSTRUMENTS BROADENS BY THE MONTH, SO DO THE CAPABILITIES OF THE LIGHTING DESKS DESIGNED TO CONTROL THEM. IN THIS TWO-PART LIVE! SURVEY, IAN HALEY SUMMARISES THE MAJOR FEATURES OF TODAY'S LEADING CONTROL CONSOLES, AND TALKS TO SOME OF THEIR USERS

ON THE BOARDS

THE LIVE! 1995 GUIDE TO LIGHTING CONTROL DESKS • PART ONE

The past five years have seen a huge increase in the scope of equipment available to the lighting designer. Moving lights and colour changers are the most obvious, but there's also video equipment, high power strobes and a whole multitude of 'disco' effects that have found their way onto the stage. The complexity of these, and the amount of control channels required, has necessitated the development of the higher power control consoles that we have today.

Previously, even large PAR can rigs just required more memories, hence the development of desks like Celco's Series II or the QM from Avolites, which basically had lots of memories to store the intensities of lamps, with a few chases thrown in for good measure to sequence them. This new breed of instruments, however, often requiring six or 12 channels, soon used up the best part of what had been thought of as large boards. But it wasn't just the quantity of channels, but the way the desk

manipulated them that was limiting — anyone who has tried to crossfade between two colours on a colour-changer hooked up to a Series II will bear witness to that. This also opened up the area of priorities on a device; what is the default colour on a scroller? Should it always return to one end?

Celco addressed this problem, specifically with colour changers in mind, and came up with the Panorama, a desk of the Series II family, which had 30 Latest Takes Precedence or LTP channels (the existing channels being described as Highest Takes Precedence or HTP). With these, a colour changer would stay in whatever colour it was last told to go to, even if the Cue Master that had triggered this event was returned to zero.

This concept is now widely used on desks that claim to be suitable for moving lights (with HTP, the output of the channel is at the current value of the highest of any preset fader or cue fader associated with it, so all faders down, the output is zero, the lamp is off.)

So now we have the need for lots of channels to be manipulated and cross-faded accurately with some channels being treated in a different manner from others, basically, lots of number-crunching. So desks have become more and more

computerised, usually with operating systems requiring a degree in Rocket Science to use. Indeed, some of the best desks now are proprietary computers with a user-friendly front end, such as the Wholehog or ShowCad.

The conventional desks had one major beauty to them, however — they were designed ergonomically well, being easy and comfortable to use, allowing the operator to concentrate on the show, rather than a 'where's that nice look I had earlier' approach — something some console designers would do well to address today.

Of course there's no substitute for a well-organised approach to desk operation and programming, but it is sometimes not the 'organising' type that come up with the best artistic ideas. Fortunately, the computers do now seem to be finding their way into friendly desks, for example the Avolites range still look like lighting desks, and are wonderful for running conventional lights on.

It is also worth mentioning how important the common acceptance of DMX512 has been in increasing accuracy and connectability, also aiding the development of one console to handle many different fixtures types simultaneously, even from different manufacturers.

Personally, I see no excuse for manufacturers not fully implementing high resolution DMX into their product range, and the excuse that they don't feel it versatile or accurate enough is pretty unbelievable, any claimed gains in accuracy being far outweighed by the imposition of another controller on the operators.

Fortunately, the manufacturers that have stuck with their own protocols, have included some way of triggering their controllers from another source, be it DMX, Binary Coded Access, MIDI or SMPTE, simplifying show playback at least.

We have now moved onto the point where it's not so much what the console can do, but the way in which it is operated that is often the deciding factor when choosing. All designers seem to have their own 'pet' desk, claiming it far superior for one reason or another. This isn't surprising, as once you've mastered the features and shortcuts of one console it's nice to be able to control everything from it.

Whatever your budget, there's probably a desk out there for you, from £500 up to £20,000. There are even desks that will programme for you — for example, the Wholehog, with its Stack Synthesis, makes programming complex sequences for things like circles, squares and flips a doddle. This year's PLASA Show saw the industry's latest offerings, with an interesting drop in prices for more features, with perhaps the most common statement being ... 'Well we're looking at doing that for the next software release!'

These consoles fall into two main categories — 'dedicated' and 'non-dedicated' controllers. This article is mainly addressed at the non-dedicated controllers, that is, desks that are not for handling any one specific fixture, but I've included a ►