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plasamedia

classic gear

The Scroller | by Rob Halliday . . .

One challenge given, two classics created. In the mid '70s, Kirby Wyatt of Dallas-based Showco called for a colour changer for a PAR can, asking for random access to six colours with a change time of between just a quarter and a 10th of a second.

Colour change wasn't new - wheels and semaphore devices already existed, but they couldn't match one or more of these parameters. Showco's staff tried various approaches, from sliding colour frames moved by compressed air, to cells holding liquid dyes to diffraction gratings and colour-changing dielectric crystals. But, ultimately, a little rule breaking was required.

Jim Bornhorst used dichroic glass colour; he couldn't make it PAR-sized or, initially, random access, but compensated by adding some motors to create a classic we've already met: the Vari-Lite.

Keny Whitright did achieve the PAR size, but he gave up on random access. Instead, he realised that he could just tape rectangles of standard plastic colour filter together without the need for heavy, hard-to-move frames. From there, he figured there might be a way of running this gel string around the PAR can. A colleague, Tom Sommers, suggested the idea of turning it into a scroll, the gel wrapped around rollers on either side of the front of the light.

Whitright's first six scrollers - with direct drive from a stepper motor controlled by electronics designed by a former Showco colleague, Larry Herring, and named ColorMax - were delivered to Obie Lights in March 1980 for a Tom Petty tour designed by Jim Lenahan. Joe Tawil of GAM saw the product, signed it up, and suggested both different-sized scrollers for different lights, and also a cheaper model to broaden the potential market; the latter became GAM's ColorWiz scroller.

Others also liked the idea and started to produce their own versions, sometimes contributing new ideas along the way such as LSD's approach to a common power supply sending power and control signals to sets of scrollers.

Keny Whitright preferred to target 'better' over 'cheaper'; his theory was that the world wanted to be able to change colour fast, and in one prototype, he achieved 10 frames in 1.5 seconds. "You could only perceive the first and last two frames; the other six went by so fast your eye didn't register them as separate colours," he recalls.

Along the way Whitright dealt with a whole host of challenges, from keeping the scroll taught even as the geometry of the scroll on its rollers changed, to handling the static electricity that would build up on the plastic scroll itself as it was moved. He also started to add DMX control to the product that ultimately became the Wybron Coloram, then evolved into the Coloram II that allowed more scrollers per power supply amongst other refinements. About 100,000 of these are out in the world, many still giving good service on long-running shows such as *Chicago*.

The Colorams and the other devices they've inspired - most notably the Rainbow scroller which became the standard choice in Europe - have given good service for decades, dramatically increasing the flexibility of lighting rigs and the creative options available to designers. It is really only in the last few years that the rise of the good quality LED fixture has given designers colour changing options with, finally, random access - free at last from the pressure and fear of laying out a scroll with the colours in the most useful order!

Wybron on Scrollers:
//plasa.me/wybron

Rob has been working in and writing about lighting for more than 25 years, on shows around the world. He wonders if this makes him a classic... or just old!