

# Lighting & Sound international

September 2015

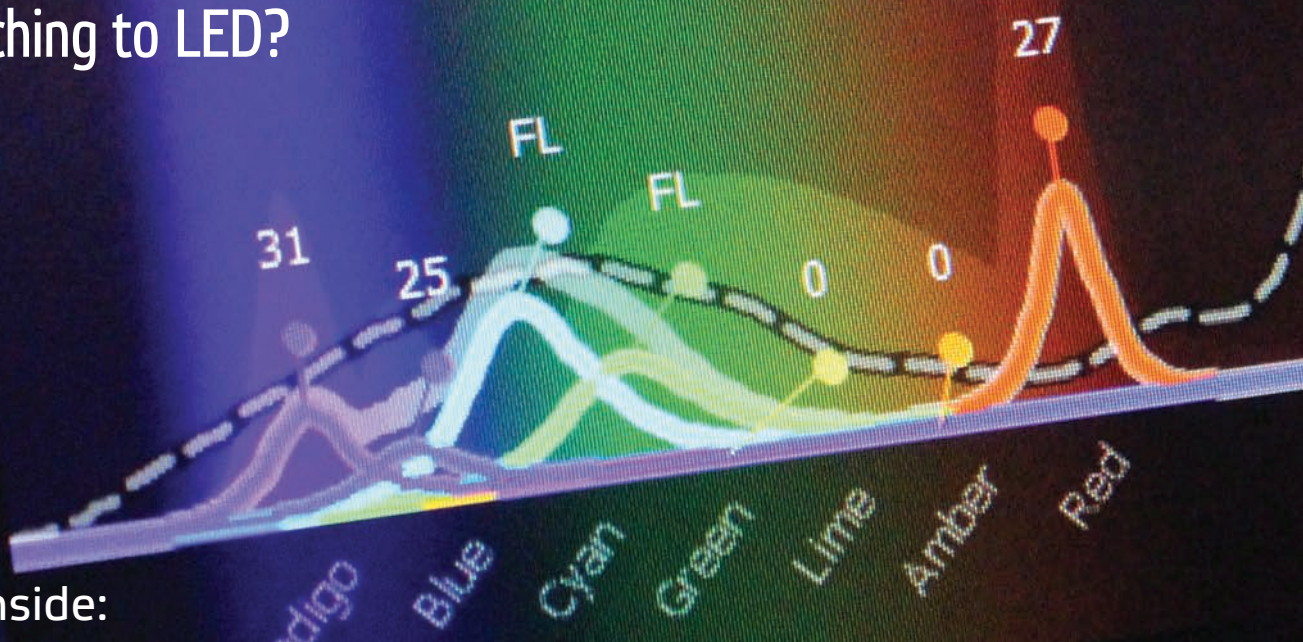
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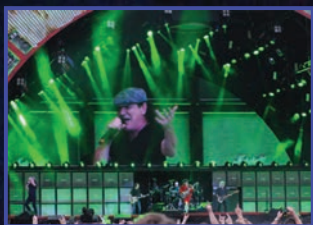
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## Changing Light

### Switching to LED?



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# Classic Gear: Strand IDM

Rob Halliday takes a nostalgic but instructive look back at the tools that have shaped the industry . . .

Hard to believe, now, but after a lighting designer had finished balancing their latest beautiful state, there used to be a pause in proceedings while the person operating the manual console picked up their pencil and their paper cuesheet and made a careful note of all of the levels - at the same time mentally figuring out how much time they'd have to set up that state during the show. Skilled operators could do this quickly, but it was never instantaneous - and because directors can be impatient souls, lighting was often forced off into its own private sessions, the designer forced to light a stage devoid of the real actors in the real costumes.

The obvious dream: a lighting control that could instantly record a look. The better dream: one that could not only do that, but also recall any state instantaneously as a show jumped around in rehearsals (-early memory lighting systems using punch cards could do the former, but were poor at the latter).

Electronics, perhaps even this new-fangled computer technology, seemed likely to provide the answer, but the companies with most experience in lighting were having a hard time adapting their electro/mechanical backgrounds to this new world - and doing so was expensive. Fortunately a new suitor for this technology with

deeper pockets than theatre was in sight: television, colour demanding greater precision in lighting control, independent creating new studios that needed equipment.

The dominant supplier, Strand, therefore had the impetus it needed to create a system named for the dream, IDM: Instant Dimmer Memory. Though the costs took their toll and probably led to the company losing its independence, the console debuted in 1966, offered in two versions: IDM/DL, with a complete set of Strand's quadrant faders, one per dimmer, or IDM/R, faders replaced by rocker keys to overcome the conundrum that as soon as you recalled a cue from memory the faders would be in the wrong place. In either case a state could be stored to memory - Record was the word Strand chose for this - and any memory could later be recalled and manually faded onto the stage.

This was not a general-purpose computer adapted for lighting, rather an electronic machine designed just for that one purpose. SCRs formed the local storage elements, 15 per channel each drawing 20mA. Cue memory was a Sperry memory drum with a capacity of 0.5Mbits - less than a floppy disc - in a big, bulky, heavy box. The console shown is from the New London Theatre; legend has it that the building was completed around the drum which



now has no route out; an optional paper tape provided show archiving. A 240 channel console had a 400 cue capacity at 5bit - 32 step - per channel resolution, driving the other classic that really made all this possible, electronic thyristor dimmers.

20 were made and sold around the world from the Budapest Opera to the London Coliseum. It revolutionised what we do by allowing the creation of lighting to keep up with rehearsals on stage and so become an integrated part of that rehearsal process, and the playback of lighting to keep up with the show whatever its pace (though isn't it strange how even as the technology has advanced from IDM, so the techs on the biggest show seem to take ever longer . . .)

**IDM at the Strand Archive:**

> <http://plasa.me/ro8ee>

**IDM at the Backstage Heritage Collection:**

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