



Console Programming Tips, Summer 2004 *by Rob Halliday*

Introducing 2.8.5 console software

Continuing the evolution and improvement to their console software that has been ongoing since the 430 console first appeared in 1995, Strand is about to release GeniusPro/Lightpalette software version 2.8.5. Let's take a look and see what this adds to make our lives easier!

Trackback

The most powerful new feature is TRACKBACK.

Many console users are familiar with tracking on the 500-series and consoles from other manufacturers. Historically, tracking is the descendent of the way that manual 'one preset' consoles, such as the piano boards used on Broadway, were operated: in cue 1, the electricians might put channel 1 to 50%, channel 2 to 60% and channel 3 to FL. In cue 2, they would move channel 1 to 30%. In cue 3, they would move channels 2 and 3 to 20%. In cue 4, they would move all of the channels to 0%. In other words, a channel would be put to a level, and would then stay there (track) until there was an instruction for it to do something else, while a cue would be a list of changes to particular channels.

Contrast this with 'non tracking' or 'state' style operation. This is the descendent of the two- or three-preset manual consoles that were common in the UK. Here an operator would set a complete lighting state on one set of faders. He or she would then set the next state on a second set of faders, then cross-fade from one set to another before clearing the first set and using it to set cue 3. Generally the cue sheet therefore described a level for every channel in every cue. Occasionally a cue would be so simple that it wasn't worth wasting a complete set of faders for - perhaps a practical light was switched on, requiring just one channel to be moved to full. Here the operator's cue sheet might note that this was a 'move fade', to be carried out by manually moving the appropriate fader on the current 'live' fader bank.

In time, US computer consoles - the Lightpalette family - adopted the tracking style of operation, but with the advantage that the console could always figure out how

to get the complete 'look' of a given lighting cue back on stage, even when jumping around out of sequence - something that was quite hard for the piano board operators to do from their list-of-changes cue sheets! Conversely, UK/European computer consoles, such as the Galaxy family, adopted the 'state' approach where each cue contained a level for every channel and 'move fades' could be used in special cases where only certain channels had to change in a cue.

The current 300- and 500-series consoles can work in either way: choose by pressing [REPORT] then {ADV SETUP>} then {SHOW SETUP>} then setting CUE TRACKING to OFF (for state operation: complete states plus move fades) or either ON or THIS CUE ONLY for tracking-style operation.

The mode of choice will sometimes depend on the operator or lighting designer's experience or preference, but generally if you're dealing with moving lights you'll want to use the console in tracking mode: you usually want a moving light to track because if you point it somewhere, you want it to stay there until you move it somewhere else! Complex shows, particularly those with overlapping cues, also benefit from tracking operation: making changes that run through long sequences of cues is easier, and it allows multiple cues to run at the same time since each cue will only affect the channels it has instructions for. It's therefore very easy to make a slow sunrise (cue 10 has the sun channel coming to full over five minutes) with lots of quick changes of specials then happening downstage of it (cues 11 to 20 each change to a different special in one second).

In TRACKING ON mode, recording or updating a cue, or modifying a channel in the preview screen, will cause that change to track forwards until the next cue where the light has an existing instruction to do something different - unless you press the TRACK/QONLY key to make the

change QONLY, limiting the change to just that cue (conversely, in THIS CUE ONLY mode, a change will only affect one cue unless TRACK/QONLY is pressed to make the change TRACK).

The new Trackback function allows changes to track backwards through the show as well as forwards. For example, you might reach the middle of a sequence before you notice a light is too bright. Before, the quickest way to make the change through the entire sequence of cues after setting the new levels was either to use UPDATE to store the changes into the first cue in the sequence, from where they'd then track forwards (but this meant you had to know where the channels first came up), or to go to PREVIEW, scroll up until you found the cue where the channels came up then go [channels][@][LIVE] to 'pull' the current levels from live into the previewed cue, from where they would track forwards (but this would be cumbersome if different channels came up in different cues).

Now you can just type

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[UPDATE] [SHIFT] [TRACK/QONLY] [*]
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which would appear on the command line as

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[UPDATE] [TRACKBACK] [*]
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This would make your channels track backwards through the show to the point where they actually came to their levels, and track forwards through the show until they next changed level or were 'blocked' with an instruction to go to the same level (since we're in TRACKING ON mode and didn't specify that we wanted the change QONLY).

If we'd wanted the change to track backwards to its start cue (a function some other consoles call 'updating the source' of the channel's level) but not to track forwards, we could type:

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[UPDATE] [TRACKBACK] [QONLY] [*]
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TRACKBACK can be used wherever the QONLY/TRACK might currently be used - for example, when recording a cue, updating a cue or setting a channel's level or other attributes directly in the cue preview screen whether by specifying a level directly, using a reference group or using @CUE x or @LIVE.

The main thing to note is that a channel that wasn't previously on won't track backwards, since otherwise it would be too easy to make lots of channels suddenly

appear back through to the start of the show! You should also note that TRACKBACK's behaviour is actually subtly different from that of TRACK. When a change tracks forward, it tracks until it finds the next instruction for that light; the new level stops in the cue before that instruction. Trackback goes backwards to an existing instruction then changes that instruction as well. This *is* the behaviour you actually want to happen! Where you need to be careful, though, is if you have a moving light set to a position in cue 1 (say), come on in cue 2, fade out in cue 3, then track on in that position through subsequent cues. In cue 20, you might then set it to a new position and turn it on. Trackback looks like the perfect way to get the light positioned in advance for this cue and store its intensity in that cue all in one command:

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[1] [UPDATE] [CUE] [20] [TRACKBACK] [*]
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but this would have tracked back and changed the original position set in cue 1, making the position for cue 2 incorrect! To make the best use of Trackback for this kind of use you might want to consider 'blocking' the attributes for moving lights after they're used in cues, to 'protect' them from backwards-tracking changes. As always, at the very least you should beware of this possibility when selecting how to store changes into a cue.

Trackback is a powerful new tool in the programming armoury, though. The easiest way to get comfortable with it is to try it for yourself - perhaps in the [PREVIEW]{XREF} display, where it's very easy to see changes run through blocks of cues!

Also New

Other new features since 2.6.15, the last general release version, include:

- AutoMoveWhileDark will now run every time you load a cue into a playback. This is particularly useful if you have to jump over some cues: load the next cue you want to run and AutoMove will get the lights in the right place ready for that cue.
- [GOTO] [CUE] [number] [*] now shows channel colour coding (purple for going up, green for going down) relative to the previous cue in the cue list rather than the previous state on stage, which has been its behaviour until now. [CUE] [number] [GO] and [CUE] [number] [CUT] retain the old behaviour.
- You can now use function filters to move sets of attributes to different parts of part cues, rather than having to use attribute numbers. For exam-

ple, in preview scroll to part 2 of a cue then type
[chans] [@ATT] {position} {SOFTBLOCK} [*]
to just move pan and tilt of the specified channels into
that part.

- There are now more function filters - 12 instead of 6. Configure in the ATCPAGE file as before (see the Winter 2003 Newsletter), access them using the centre LCD keys or F7-F12 on an external keyboard.
- A console will now display a warning in its Status window if a network node goes offline, allowing the problem to be investigated as soon as possible.

As with all recent software versions, you can find a full list of what's changed by pressing [HELP] then selecting {LINKS} then {NEW FEATRS} - don't forget to download and install the updated console help files at the same time as you download and install the new console software!

Version 2.8.5 is now released and visitors to PLASA and LDI will be able to test drive the software on the stand at the show. As always, it will be freely downloadable at the Strand website, www.strandlighting.com.
