



Fall 2002

## STRAND News

### Toronto's Roy Thomson Hall Renovation ShowNet SN110 Ethernet Nodes Key to Networking Solution

Strand Lighting is excited to be part of the recent renovation of the Roy Thomson Hall in Toronto. Home to the Toronto Symphony Orchestra, the hall is widely regarded as elegant, intimate and aesthetically engaging. Originally designed by Arthur Erikson, Roy Thomson Hall represented the leading edge of technology and design when it opened in 1982. While still regarded as "an architectural jewel," the Hall's acoustical performance has been the subject of fierce debate for much of its history.

Russell Johnson of Artec Consultants, one of the world's foremost acousticians, and Tom Payne of the Canadian architectural firm of Kuwabara Payne McKenna Blumberg (KPMB) were invited to update the acoustic design of the building. These two are in charge of the acoustical reengineering and aesthetic enhancements to the Hall. Final cost of the project is expected to exceed \$20 million.

Strand Canada's Richard Goode worked closely with the Artec team in specifying all of the updated lighting technology that would be integrated into this extensive renovation. Enhancements included the addition of status reporting dimming, Ethernet network capability, moving light technology, custom electrical

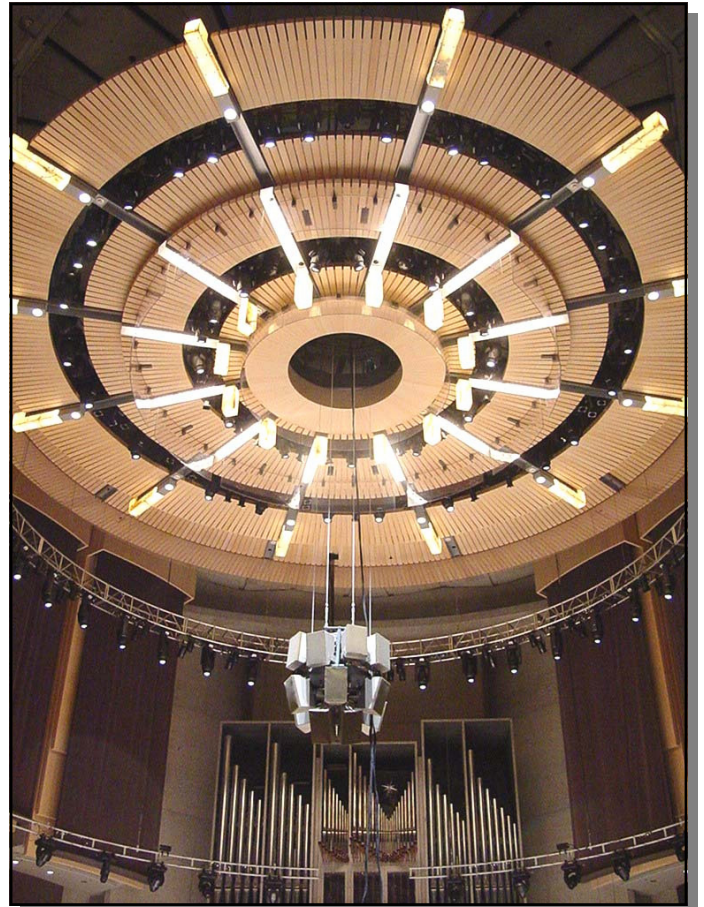
distribution, and new lighting control platforms.

The lighting control system has been designed to meet the ever changing needs of the Hall. The 520 consoles provide rapid focusing and programming for the new Vari\*lite moving lights quickly refocusing them regardless of their trim height which varies with the position of the canopy and the type of performance on stage. All lighting information is distributed over a Strand ShowNet network using SN110 dual port nodes. The nodes can be rapidly configured as DMX inputs or outputs allowing the operators to connect and manage touring consoles or add more automated lighting or colour scrollers.

Adding to the system flexibility is a new Strand wireless remote based on the popular Compaq iPaq family of personal digital assistants. The new remote allows operators to access all of the functions of the lighting consoles and set up 45 SN110 nodes in the system from anywhere in the building.

The system also supports stage managers with direct access over the network to a dozen lighting set ups by simple pushbutton stations.

The staff can now quickly meet the needs of all of the users of the facility.



The acoustic canopies above the stage at Roy Thomson Hall

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## New Strand Products



100 Series Control Console

### New 100 & 200 Series Consoles

Strand introduces 2 new manual control consoles to replace the highly successful LX and MX lines. The new compact **100 Series** manual console is a portable desk that quickly converts to rack mount as needed, and is ideally suited for small venues. Designed as a 12-channel/2-scene preset board, it can also operate in 24-channel/single-scene preset mode, using a special "Hold" function that allows seamless crossfading between scenes. All the other features are there that you would expect: DMX 512 output, split crossfader with time fade, bump buttons, grand master and blackout. There's even an effect playback!

Joining the '100' are the new **200 Series** portable consoles, which offer enhanced control capability. Available in either 12/24 or 24/48 channel configurations, these come with all the features of the 100, plus two pages of submasters, providing up to 96 submaster memories. Effects capability has been increased to a total of 24 effects with 99 steps each. The 200's have fully proportional electronic patch for 512 dimmers.

All of the new desks are available with either 120V or 230/240V power supplies. These powerful consoles offer excellent value for a wide range of applications.

### New 301 Back-up Control Console

Joining the popular 300 Series consoles and Show-controller is the new **301 Back-up Control Console**, a versatile multi-function system that can be used as either a back-up platform, a timed event controller, or a manual console. Simplicity is the key to this new console. Back-up mode features 12 pages of 12 back-up looks (144 total back-up cues). As a timed event controller, you have access to 12 events, making this desk ideal for Stage Manager panel appli-

cations. The 301 can also serve as a 12-channel manual console with DMX patch. It can also receive up to 12 analog inputs, and uses an LCD display for set-up and configuration. An audible 'DMX Fail' warning sounds in the event of DMX interruption, and provides an automatic bypasses on system failure. The 301 is designed for either table or 19-inch rack mounting (7U high), and is available with either a 120V UL/cUL or 230/240V CE power supply.



301 Back up Control Console



S72 Strand Demux  
72-way DMX -Analogue Demultiplexer

### New 72 way DMX-Analogue Demux

Looking for a simple way of controlling all of those effects machines and analogue dimmers? Strand introduces the new **S72 Strand Demux**. This is a DMX 512 or MIDI controlled DMX to Analogue demultiplexer, providing up to 72 +/- 10, 12 or 15VDC user selectable analogue outputs.

Constructed with a 19-inch rack-mount form factor (1U high), this device has a front panel LED display showing address and operation mode. It has a built-in 72-way chase, and a single-scene back-up upon 'DMX Fail.' The unit is CE marked, and designed for 230/240V, 50Hz operation.

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## New 230/240 Volt Dimmer Packs - Act 6 Digital & SD 6

Strand is introducing 2 new dimmer packs for 230/240V applications. The **ACT 6 Digital** wall mounted dimmer pack is ideal for small permanent installations like churches, schools or nightclubs. The **SD 6** rack mount dimmer pack is better suited for portable or touring applications. Both of these new packs provide six 13-Amp dimmers with fully digital control electronics, and will accept either single or three phase power input. Set-up is simple using a

front panel keypad and LCD display. 24 back up cues are available along with the capability of linking multiple packs. Dimmers have individual Min/Max settings and curve selection. Chase and scene pattern libraries are on board for stand alone operation. Both packs are available with numerous output configurations. The SD 6 has a single output per dimmer, while the Act 6 Digital has dual outputs. Both of these new units are CE marked.



SD 6 Rack Mount Dimmer Pack

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## New Lights From Quartzcolor - 6kW HMI PAR & Fresnel, Redhead



Quartzcolor 6kW HMI Fresnel

Strand introduces 2 new high-powered HMI location lights under its Quartzcolor banner: the 6kW Daylight Fresnel, and the 6kW Day LITE PAR. These new HMI lights use the MSR 6000W single ended lamp (G38 base), and have new, specifically designed lens and reflector systems. These new enhancements offer superior optical performance, and significantly higher light output. Both heads are manufactured to the same high quality standards that you would come to expect from Quartzcolor. They're rugged, durable, and above all – light weight: 40kG (88lbs) for the fresnel, and 33kG (73lbs) for the PAR. Other enhancements include a newly designed 3-rail guide system, coupled with a centrally aligned rear focus knob provides smooth and precise focus adjustment. The newly designed lens doors feature cast aluminum ears with encased bearings for smooth barndoor or lens rotation. PAR lenses are mounted in colour-coded frames for

easy identification. Both of the heads feature LCD electronic hour counters for accurate lamp-life and service tracking.

At the other end of the location lighting spectrum is an update on one of our most popular luminaires, the Redhead.

So how do we improve upon this rugged and reliable location legend? By taking it apart and scrutinizing every last element for ways of making it even more reliable and better functioning. Hardware points have been strengthened with brass. The lamp sockets have been improved to make lamp replacement easier. Even the focus adjustment mechanism has been overhauled. The end result is a bullet-proof location workhorse that will last even longer and take any punishment you throw at it.

Take one out and have a look at it. We think that you will be pleased with what you see.

lanebeam 1000W Redhead



Strand 300 Series Console

Recently a building used by Weston-super-Mare College was sold for re-development, The Department of Creative Arts and Design needed to re-locate part of their Drama teaching facility into the main college building. The department already had drama teaching studios, a facility for HND

level drama work was equipped last year, so it was decided to take a slightly different approach for the new space.

Performances are undertaken during the year at various local venues, including The Playhouse Theatre, and the department has a strong interest in the practical and technical aspects of performance theatre. Specialist Technician Peter Tyler needed to be able to demonstrate to students current safe working practices and modern equipment and techniques, which led to the idea that the new space should be set-up as a Drama Laboratory where both actors and technicians

could experiment.

Some equipment was recovered from the old studio, curtain tracks, dimmers and some lanterns. A series of technical facility connection panels were installed around the laboratory to carry audio, communications, video and network signals as well as dimmed, non-dim and technical power sockets.

A new Strand Lighting 300 series lighting control desk was chosen, and a ShowNet network established using the low cost SN110 nodes to output DMX512. The nodes can be programmed remotely over the net from a computer in the supervisor's office which

can also be used for desk programming and editing. One of the reasons for choosing the 300 was compatibility with the 500 series desk at the Playhouse, so that work could be done in advance on shows for performance there. A new sound system has also been installed.

Future plans include using the network for digital audio, installation of a motorized truss for demonstration of rigging techniques and provision of a multi-workstation WYSIWYG 3D visualization educational package. The installation was designed, supplied and installed by Stage Electrics.

## 'Witches' & More Down Under

Two hit British musicals have now transferred 'down under' to Australia - with both continuing to use the Strand control systems that served them well in the UK.

First to arrive was Lionel Bart's ever-popular *Oliver!*, which is now playing at the Lyric Theatre in Sydney prior to an Australian tour. Produced by Cameron Mackintosh and directed by Oscar-winner Sam Mendes, this production opened at the London Palladium in 1994 and had become the longest-running production at that theatre by the time it closed in 1998. Originally plotted on the Palladium's Galaxy with a separate console running the automated lighting, a Strand 530 took control of the entire rig during the show's run. A 530i was then used for the UK and Canadian tour of the show that followed, using a greatly expanded automated rig to reduce the need to manually focus lanterns on tour.

For the Australian production, lit once again by David Hersey and Jenny Kagan, lighting programmer Rob Halliday specified 500-series consoles: a 520i main console and a 510i tracking backup. The rig underwent some changes to make use of the latest automated lighting, including Vari-Lite VL2402's, Martin Mac500's, High End StudioColors and DHA Digital Light Curtains. "AutoMod, as always, made adapting the show to deal with the different lights very easy," Halliday notes. Alistair Grant from the UK was the show's production electrician, with the rig now under the care of Ed Cymerman and Paul Mulcahy.

The second transfer is *The Witches of Eastwick* which, when it opened at London's Theatre Royal Drury Lane in July 2000 and had one of the largest automated rigs seen in the West End. The show used two Strand consoles



*The Witches of Eastwick* at Melbourne's Princess Theatre  
Photo courtesy of Rob Halliday

networked together to allow two people to program the show (one dealing with automated lighting, the other with conventional lighting). This converted to one console plus a backup for the run of the show. A re-designed version of the show subsequently transferred to the Prince of Wales Theatre in London, and that version of the show is now at the Princess Theatre in Melbourne. With a smaller rig including Vari\*Lite VL6C's and 2402's, Martin Mac300's, High End Technobeams, DHA Light Curtains and a

variety of conventionals, the show is now run by a Strand 530i with a second 530i as a backup. Bytecraft supplied the consoles and rig. The 530i on *Witches* is kept busy. The show contains over 350 cues, many of which trigger multiple chases. As for the London production, the lighting designer is Howard Harrison, with Rob Halliday again programming the show and Richard Pacholski as the Australian associate lighting designer; Dale Mounsey is the show's head electrician.



For *Oklahoma!*, seen here during rehearsal, LD David Hersey relied heavily on the Strand 550i and 300 series consoles together with the flexibility of ShowNet Ethernet control. Photo courtesy of Rob Halliday

March 2002 saw the arrival of the acclaimed Royal National Theatre of Great Britain production of *Oklahoma!* on Broadway, and as with the London production of the show, Strand Lighting's 500 Series consoles are in control. The show received 7 Tony nominations, including Best Lighting Design. This new production of the classic Rodgers & Hammerstein musical originally opened at the National Theatre's Olivier Auditorium in 1998, directed by the theatre's artistic director Trevor Nunn, with lighting by David Hersey. Since this production, the National has installed 500 Series consoles in all three of their theatres to cope with their busy schedule and increased use of moving lights in musicals including *My Fair Lady* and *South Pacific*. Producer Cameron Mackintosh transferred the *Oklahoma!* Production to the Lyceum Theatre in London, where the entire rig was brought under the control of a Strand 530.

Now the show has

traveled to the Gershwin Theatre in New York. David Hersey and his team of associate lighting designers Ted Mather and Jenny Kagan, together with lighting programmer Rob Halliday, specified the Strand 550i to control a revised and expanded rig that now includes 22 DHA Digital Light Curtains, 21 Vari\*Lite VL2402 washlights, 14 VL2202 spotlights, 400 dimmers, Wybron Coloram and CXI color changers, and effects including smoke machines, VAFX cloud projectors and DHA animation effects. A second 550i serves as a backup console and second programming desk.

"With the show already programmed on a 530, it made sense to keep using the same type of console for the New York production. The *automod* (automatic modification), *update*, *search-and-replace*, and other functions allowed us to quickly and easily update the show file to suit the expanded rig and the new moving lights it contained, while *magic-update* allowed

the New York rig to be focused very quickly" says Halliday. Data is carried from the console to the lighting rig over Strand's ShowNet Ethernet network system. The rig and consoles were supplied by Fourth Phase New Jersey, and installed by a team led by production electrician Mike LoBue and show electrician Mike Ward.

For the production period of the show, Halliday also made use of the full Strand 300 and 500 family to meet the different demands of the lighting team. "David, Ted, Jenny and I each wanted to see different combinations of channels arranged in different ways," explains Halliday. "Using video nodes didn't allow this, as the designers would always see the same display as the programmer. We therefore specified 300 consoles as designer's video remotes." Strand supplied the production with two 300 consoles configured as remotes to the main console, thus allowing Kagan and Mather to arrange their channel

displays in their own styles, and to interrogate cues in preview independently of each other and the main console. Different "users" (created with the Server software on the consoles), each with different access permissions to the show, satisfied the New York union requirement that the designers not be able to use the consoles to actually control the rig.

"To reduce the amount of clutter in front of David, we didn't give him a console, but instead ran Strand's ShowNet into the back of his Macintosh laptop. He then ran the GeniusPro off-line editor through a VirtualPC emulator on his Mac; this was configured as a remote and therefore picked up the show information from the console. His display was set to only show the channels active in any particular cue, allowing him to concentrate only on the channels in use at a particular time." Halliday also made use of the console's ability to save show files directly to his Mac, through the Strand Server application, to keep backup copies of the show at the end of each day. By the time the production opened, he and Mike Ward had their Macs talking to the console wirelessly through Apple's AirPort card and a wireless Ethernet receiver connected to the console.

The technology used in *Oklahoma!* is certainly the most up-to-date in any state, "But you don't feel like you are seeing a lot of technology happening up there," Mather says. "We are not drawing your attention to it too much. It's more a question of color, direction, and timing, rather than movement."

AutoMod, or Automatic Modification, is a feature that has been available in Strand consoles from back in the time of the Galaxy range. Its basic aim is to deal with situations such as "My downstage centre warm cover light has blown. I can't replace it now, but I need light downstage centre for the rest of the show. The cool cover light will be better than nothing!" To achieve this on many consoles you'd have to go through the show manually re-plotting cues to use the cool light (let's say this is channel 2) instead of the warm light (channel 1, say). And you'd have to remember to change it back the next day after fixing the warm light!

With AutoMod on 300-, 400- and 500- series consoles, you tell the console to replace channel 1 with channel 2, then let it do the rest!

Go into the AutoMod display by pressing:

**{MORE} {AUTOMOD}** (these are soft keys)

Then type: **[2] {A-MOD FROM} [1] [\*]**

The screen will show "2.1 = 1.1", which means that channel 2 will be replacing channel 1 when you turn AutoMod on.

Turn AutoMod on by pressing: **{A-MOD ON}**

**Note: A "USING AUTOMOD" reminder will appear in the corner of the screen.**

Now run some cues, and you will see that whenever channel 1 used to come on, channel 2 will now come on to the same level instead. Channel 2 will, of course, continue to do its own cues as well, and if it ends up trying to do two jobs in one cue, the higher level will take precedence. If channel 2's lamp is brighter or dimmer than 1's, use:

**[2] {A-MOD FROM} [1] [0] [5] [\*]**, or

**[2] {A-MOD FROM} [1] [0] [+][5] [\*]**

to scale channel 2's intensity - in this case, to make it always 50% dimmer or 50% brighter than channel 1.

Though AutoMod has historically provided 'on-the-fly' modification, it is now possible to apply AutoMod changes permanently (perhaps if it turned out that the show looked better with the cool light downstage!):

**<UPDATE>{UPDATE A-MOD} <CUE>[1]<THRU>[10][\*]**

will apply AutoMod rule changes permanently to cues 1 through 10. In the example above, channel 2 would now have replaced channel 1 in cues 1 through 10. Alternatively:

**[2]<UPDATE>{UPDATE A-MOD}<CUE>[1]<THRU>[10][\*]**

would have applied the rule to just channel 2, so channel 2 would now have copied channel 1's behaviour in cues 1 through 10, but channel 1 would have carried on doing whatever it was doing.

This is particularly useful when transferring moving light information such as colour and gobo reference groups from show to show. For example, if you had a Pirouette as channel 1, and you added nine more Pirouettes as channels 2 through 10, you would want them all to have the same group information, particularly for colour, so enter:

**[2] <THRU> [10] {A-MOD FROM} [1] [\*]**

**<UPDATE>{UPDATE A-MOD}<GROUP>[1]<THRU>[999][\*]**

to copy all information; or

**[2]<THRU>[10]{A-MOD FROM}[1][@]<ATT>{COLOUR}[\*]**

**<UPDATE>{UPDATE A-MOD}<GROUP>[1]<THRU>[999][\*]**

to copy just the colour information, and the job is done!

**Note: if you plan to use AutoMod in earnest, you should upgrade your console to the current version of the console operating software, version 2.5e, freely available from the Strand website at [www.strandlighting.com](http://www.strandlighting.com)**

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Rob Halliday has been using 300, 400 and 500 Series consoles all over the world since 1995's *Blood Brothers*, on shows including *Les Miserables*, *Miss Saigon*, *Oklahoma!*, *The Witches of Eastwick*, *Martin Guerre*, *My Fair Lady*, *Pan* and *The Coast of Utopia*. He also writes about theatre for publications including 'Lighting+Sound International,' 'Lighting Dimensions' and 'Entertainment Design'.

Rob will be conducting a workshop at LDI 2002 in Las Vegas during which he will be reviewing and discussing the programming involved with the current *Oklahoma!* Production. For further details, consult the LDI show schedule, or visit their



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