STRAND
News

Summer 2004

ATLANTIC

Honoring the Veterans of the Second World War

In 1993 the U.S. Congress authorized the American Battle Monuments Commission to establish a World War II memorial in Washington D.C. A national competition was held to select a design and Friedrich St. Florian was selected to design the monument. The design features pavilions for the war in the Atlantic and the Pacific with 56 pillars representing the 56 states, territories and the District of Columbia surrounding a reflecting pool. The memorial is located on the Mall between the Lincoln memorial and the Washington monument. Construction began in September 2001 and the facility was dedicated on May 29, 2004.

There are 56 pillars representing the states, territories and Washington D.C.

The WWII Memorial at Sunset looking at the Lincoln memorial

The lighting for the facility was designed by Horton Lees New York office and engineered for the National Parks service by Leo Daly Engineers. The project represented a number of challenges for Strand's engineering team as the system has long cable runs and a large number of dimmed circuits all of which need to be controlled from a central location hundreds of feet from the Memorial.

The Control system for this project utilizes lighting presets stored in the dimmer racks for maximum system security and reliability. Presets are programmed, mastered, recalled, and scheduled via Strand Lighting's ReporterPro Software and ShowNet Lighting Control Network. Preset information stored in the rack processors is also backed up by the ReporterPro PC. Software on the PC is used to assign circuit ID's to each dimmer, in this case the actual alphanumeric circuit ID's from the project drawings were used. The circuit ID's were then used to generate Circuit Groups, which function in a manner similar to submasters. The circuit groups were then used to program System Wide Control Presets.

The link between the dimmer racks and the PC is provided via the ShowNet lighting control network and a Supervisory port on an SN110 Network Node connected to the Reporter link of the SLD rack processors. Via the Reporter link, the ReporterPro PC is used to configure and monitor the dimmer racks, edit and record SWC Presets, and recall SWC Presets based upon a schedule. Presets are scheduled via an astronomical time clock built into the ReporterPro Software. 15 minutes before sunset, the PC sends a command to the dimmers to recall the lighting preset. At midnight, the preset changes to an overnight look. 15 minutes after sunrise, the lights turn off.

Over-rides are provided from the fountain controls to disable certain circuit groups when the pools are drained. Presets can also be recalled via an LCD station in the control room as a manual over-ride to the PC system. Panic stations are provided for emergency use.

Presets can also be recorded and recalled via a Strand 300 or 500 Series console attached to the ShowNet Network. By enabling the Reporter Link on the console, SWC presets can be recorded with fade times or recalled via the command line on the desk. This capability provides for the use of the USB Designers Remote and the WiFi Handheld. The system was commissioned by Parlights, Strand's distributor in the Washington DC area. The initial programming of the lighting presets, used wireless Ethernet to connect a 500 Series console located in the center of the memorial to the system.

According to Walt Dowling of Parlights, "The Strand Lighting system provides reliability, flexibility, and connectivity to the lighting at the Memorial. Every day, the lighting comes on and turns off without requiring an operator – but powerful programming and diagnostic features are there when you need them."

Clarice Smith Performing Arts Center and Moving Lights *by Kyle Kweder*

Recently the Clarice Smith Performing Arts Center was given 6 Vari-Lite VL1000 automated lights. We used them very successfully for several shows last season. Both the Strand 550i and Strand's ShowNet made integrating the moving lights into our shows an easy experience.
Our first effort at integrating moving lights into our productions was for our spring operas. This year we produced two operas in rep, *Clara*, a world premiere commissioned work and *Tales of Hoffman*, a large opera by any standards. The seamless integration of the Strand console and supporting equipment allowed both shows to be written and teched on an extremely tight schedule.

Our Strand system consisted of a main 550i console, a Windows NT server, for centralized storage, a tracking back-up system, SN 103 nodes on electrics pipes for DMX to the moving fixtures and color faders, an SN 102 in our dimmer room for dimmer DMX, Reporter talkback and SWC preset programming, an SN100 node at the stage mangers position for cue list feedback, an SN100 node for the lighting designer, a laptop with an xConnect USB key for the assistant lighting designer, a wireless laptop for the master electrician to monitor the console form any location in the venue, and a PDA wireless remote for electricians working on notes. This is by far the largest Strand control system we have assembled for any of our shows to date.

Console remote video was available on a wireless notebook

First, the system went together flawlessly. It truly was a plug and play operation. Connect the power, connect the

network and the system was ready. Second, having the ability to have so many people doing so many discrete operations simultaneously was unique. The LD, Nancy Schertler, was able to work with the board op to modify live cues during rehearsal, while the ALD was working on the same cue list in a different command line in preview modifying past and upcoming cues. All the while the ME and his crew were catching up on notes. It was a most impressive operation. Lastly it was a rock solid system. The ME and electricians would work on some notes, pack-up their stuff and move to a new location. They never needed to worry about logging in or out of the system, they would simply put the PDA or wireless lap-

top to sleep, move it, and it would resume right where they had left it. Never did anything seem to disrupt the main console or the balance of the system. Not even when one of the performers attempted to connect to our lighting network, rather than the campus network, to access the internet.

Given the wonderful operation of the system, we are expanding the instruction program in design. Beginning this fall the Department of Theatre will offer a lighting technology course. It is an advanced design class that will be open to seniors and will be required for graduate lighting design majors. The main focus of the course will be using

In pre-production the design team worked with the system to create focus groups for all of their moving lights. Shown here is the main 550i console, the Wireless remote PDA and their system notebook computer used for remote video.

intelligent lighting equipment with the Strand Consoles and network. I have been asked to teach the class. Fortunately, I have had a wonderful instructor, Bobby Harrell. The instruction he provided through Strand Lighting will be the backbone of the course. (Bobby Harrell is a New York based designer who is on the staff of Strand Lighting and regularly provides training and programming seminars).

I am even exploring the possibility of asking him to come down for a class.

We are planning on expanding our system by adding an additional video card and a digitizer tablet. Both of these pieces would be invaluable additions to the lighting technology class as well as furthering the integration of advanced technology into our overall MFA design program. In addition to being used for teaching, the equipment would enhance the Strand Control system that is used by our guest artists. Every guest designer we've had has been impressed with the flexibility and reliability of our lighting system. The additional components would only serve to expand their favorable impression of Strand Lighting. Lastly, we are planning on integrating WYSIWYG with the Strand console and ShowNet using the DLL files supplied with your system. We own a copy of WYSIWYG and we have Strand xConnect USB keyes and computers to run the programs. All of us at the school are looking forward to working with our systems and expanding our training programs.

The theater complex at the University of Maryland was developed and specified by Theater Projects Consultants with a team led by Gene Leitermann. The systems were turned over to the University in 2002.

The author is the Electric Service Manager for the Theater.
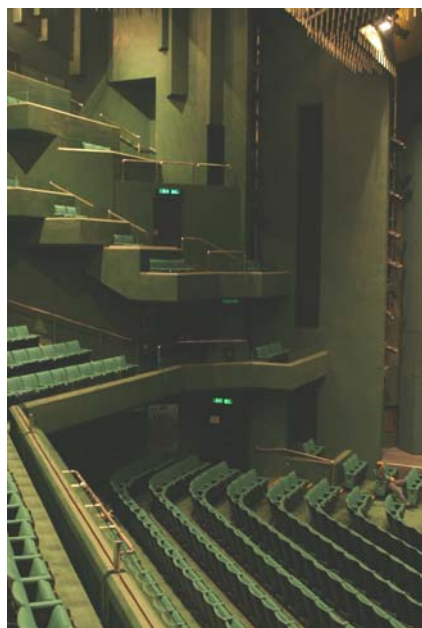
Upcoming Events

 IBC September 10-14

Strand Lighting will be participating in the IBC show in Amsterdam at stand #11-260 This year's show will feature the new Ghost light and integrated ballast 575 watt fresnels and Pars from Quartzcolor. Please see Alain Wisniewski - Product manager along with our sales staff at the show.

 September 12– 15

Join Strand at the PLASA show in Earl's Court, London for the introduction of version 2.8 of our console software. Also new at the show our 5kW Par light and our new Accent family of Architectural controls. Visit us on Stand K-30.

A Master class for the Hong Kong Academy For Performing Arts *by Rob Halliday*

The Lyric Theatre

I think it was at LDI2002, after the talk about *Oklahoma!* on Broadway (see Fall 2002 newsletter) that John A Williams from the Hong Kong Academy for Performing Arts first asked whether I'd like to come and talk to his students about programming lighting, particularly using the Strand equipment that the Academy owned.

Now in its 20th year, the Academy has six 'Schools' - of Dance, Drama, Film & Television, Music, Chinese Traditional Theatre and Technical Arts. The School of Technical Arts, of which John is now Dean, offers Degrees and Diplomas that cover theatre and film design, set and costume design, lighting design, lighting technology, sound design, stage management and stage technology. The Academy as a whole offers fantastic facilities in its custom-built home in Wan Chai, including a number of very well equipped venues.

So I agreed, we set a date, and then SARS hit the region. All travel was cancelled. The trip was off.

Or, as it turned out, not really off, just postponed. This May I did finally travel to Hong Kong to spend a month showing the Academy's Technical Arts students how to make the best use of their Strand consoles when programming theatre shows using a mixture of conventional and moving lights. This took place in three stages: an initial set of talks and demonstrations, then the

practical process of putting on a show followed by a week of taking what everyone had learnt and making sure it had stuck in a series of practical programming exercises.

Students gather in the Light Lab

Initial lessons took place in the Academy's newly-created Light Lab. This will soon be equipped with a 300-series console, but in the meantime Strand Hong Kong were kind enough to loan the Academy a 520i console, an iPaq hand-held remote and an xConnect designer's remote USB key, allowing the students to explore the new possibilities offered by these devices and Strand's ShowNet network that can connect them all together via wires or wirelessly. Students were divided into two groups and taken through console operation from first setting up a show (making fixtures, patching the rig) to programming and modifying cues with both conventional and automated lanterns. We then took a look at the possibilities available when multiple consoles are connected together to create a multi-user programming environment.

This was to be put to use the following week when we moved into the Academy's Lyric Theatre to light *West Side Dance Story*, a dance compilation designed to celebrate the Academy's 20th Anniversary. The show consisted of four productions: *Celebrate*, featuring dance alumni from the Academy's history, *Partition in Black/Partition in Blue*, a collaboration between the Academy and the visiting Paris Conservatoire Dance

Company from France, the Academy's acclaimed production of *The Rite of Spring* choreographed by Natalie Weir and then *West Side Dance Story*, effectively the dance highlights from *West Side Story* choreographed by Joe Konicki after Jerome Robbins. The Academy's John A Williams lit the last two shows, while Jo Phoa handled the first two.

Putting the lessons into practice, the 520i was configured

as a Main console with one of the Lyric Theatre's 550 console as a Remote console. Channel Partitioning and Playback Partitioning were then used to give the 520i control of the moving lights (xSpots and StudioBeams from High End) and the 550 control of the conventional rig and scrollers. Both conventional operator Vivian Cheung Man-hei and I could therefore work independently on the same cue list, dealing with our lights on our own but both being able to adjust the common cue text and time. When it came to running the shows we simply switched the partitioning off and Vivian ran the entire show, switching partitioning on again for notes the next day - no need to waste time merging and unmerging cue lists. Meanwhile production electrician Leo Siu and assistant lighting designer Maggie Law had access to the iPaq for bringing up channels for checking or focusing.

This combination of control equipment worked very well, so much so that the 'why are we using the Strand console rather than a Whole Hog' questions quite common at the beginning of the month had completely died away by the end! The Strand consoles allowed the lighting designers to quickly create beautiful lighting which supported and enhanced the shows, all combining to make a great production.

The follow-up week saw the students thrown in at the

deep end, having to patch the show's rig for themselves and then use it to create 'rock and roll' lighting to accompany a song. A practical lesson in applied programming.... but also great fun, particularly with two teams dealing with two sets of lights working on two networked consoles while striving to create an integrated overall look!

All in all, a successful, entertaining, amusing month working with great students, great staff and in a great facility. So, thanks to KK Mak and his team at Strand Hong Kong for the equipment. And thanks to everyone at the Academy for a fun time!

As a follow up to the master class we heard from John Williams who wrote to Strand thanking us for our support. This excerpt from that letter provides insight into how the school viewed the training:

"Thank you so very much for the loan of the 520i. Rob Halliday's workshop was one of the most successful we have held in recent years. The students gained a huge amount of programming expertise from the sessions.....and it really opened their eyes to the sophistication of the board. Rob also ran a few sessions for our Venue staff -- I would say that if the replacement board is anything other than a 520i in the Studio in the near future then I would be very surprised!!

The workshop (that included a practical programming component of programming the moving lights for my lighting of *West Side Dance Story* - and I don't think anyone will want to use a HOG II on a conventional show again!), was so successful that we are already talking about having Rob back for a repeat performance later in the year.....and perhaps opening the workshops up to EMSD venue staff. The frustration we now have is that we know what the 500 Series desk's can do......."

Empress of the North
Lighting Systems Integration
By Mike Menne

Is it possible to travel the inland passage from Seattle to Alaska on an overnight Sternwheeler Cruise ship? That is, an authentic looking luxury cruise ship specially designed to "travel" where the large ships cannot go? As of September 2003, the answer has been yes.

Empress of the North

The Empress of the North is a 360' foot authentic luxury overnight sternwheeler cruise ship whose home port is Juneau Alaska. She is owned and operated by American West Steamboat Company and was recently completed at Nichols Brothers Shipyard in Whidbey Island, Washington. She is equipped with some very special systems.

One of those systems is the "*Strand Integrated Lighting System*".

A little background . . .

Early electrical systems design for the ship, called for dedicated dimming systems in certain spaces including the Main Showroom (Golden Nugget) and the Dining Room. The Paddlewheel Lounge, which included a small performance area was not scheduled for any dimming capability. Other ship systems including the Emergency Public Address and Entertainment A/V systems called for specific wall control functions in each of these spaces. Early designs certainly suggested numerous individual systems with numerous control panels (lots of different "wall hardware").

The Golden Nugget Room

The Design Team
Fortunately, the owner brought together members of the design team including the Naval architect (Dave Pascuitti - Guido Perla & Associates), the interior designer (Diane Lazar - Andrea Piacentini Design), the low-voltage systems subcontractor (Multicom – the author) and the Shipyard

(Nichols Brothers Boat Builders – Les Gabelien) to design a fully integrated system. Subsequent meetings reexamined the layout of the architectural/entertainment lighting with respect to USCG/ABS/SOLAS regulations. In addition, the operation of various systems (by the crew members) was discussed. These meetings yielded the final solution; a centralized dimming system which would easily integrate with various a/v systems for simple "crew" operation. Thus, the *"Integrated Lighting System"*.

Once the design parameters/objectives were established (by consensus) it was time for the author to formalize a design and select the hardware. Formalizing the design was pretty straight forward – system inputs, system outputs, processes etc. and the creation of multiple system efficiencies where possible.

Hardware selection usually stirs a little more emotion for the following reason - it is next to impossible to schedule an out of town service call on a moving target (a ship). Thus, hardware reliability is a major factor.

The hardware selected for the "integrated lighting system " was the Strand CD80SV dimmers with Outlook Wall Controllers and A/V Interface Boxes. Strand Emergency Transfer Cabinets were used for Emergency lighting Circuits.

The Strand Hardware was selected for several reasons.

- The system complemented the configuration. The CD80sv half dimmer rack fit nicely in the Midship space (the Main Showroom Storage area) to conveniently serve multiple areas on the ship. (Note: Space is ALWAYS at a premium on a ship).

- The CD80 processor provided easy "soft" patching to configure DMX interface and Outlook control panel interface.

- The Fluorescent Ballast Controls worked nicely with the marine grade fluorescent fixtures.

- The Outlook Control Panels are easy to program. It is very easy to "setup" multiple scenes in the rooms.

- The Outlook Digital interface box allows the designer to control system presets from a "closure". CD80 processor provides various analog control interfaces which may be utilized for other system functions.

The system consisted of:
Strand CD80sv half dimmer rack assembly w/
23   Dual 20 amp dimmer modules (46 Dimmers)
 1   Dual 20 amp "constant" module
 3   Emergency Transfer Cabinets

Strand Architectural Controllers consisting of:
 7   Fluorescent ballast controllers,
 1   Outlook 6 channel, 8 preset Station,
 1   Outlook 9 channel , 8 preset station,
 1   Outlook 12 channel, 8 preset station,
 1   A/V interface enclosure

What was accomplished with the centralized Strand System?
To begin, the CD80SV worked well in the Main Deck Mid Ship location. It provided the capability of serving three different spaces with a single dimming system. Strand also provided a custom box which distributed "phase fault" information to the 3 separate transfer switches.

The single dimming system made it easy to integrate other systems control functions throughout the vessel.   The best example was the integration of background music volume control onto the Outlook controllers. The first Channel of all three outlook controllers was set up to control the BGM level.   This feature enabled the crew to control the "lights" and "sound" from a single station. In addition, the ability to "preset" audio along with the lighting was a nice plus.

Another nice feature was the A/V interface preset capability. A single button on the Main Showroom panel calls up a preset on the Outlook station. This allows the BGM to be muted, the architectural lighting to be preset and the audio system to be "reconfigured" for a show (Simplicity for the crew).

The CD80SV also allows the users to control the architectural lighting in the Main Showroom using the entertainment lighting controller. Simple patching configuration settings were used to have the DMX "a" channel override the outlook control. Thus, at the end of a show, channel 24 on the entertainment lighting controller may be used to "bring up the house lights".

The Strand Lighting system was a great choice for the Ship. It provided great centralized dimming capability and easy interface options. This continues to be a real plus for the users.   However, the best news – I haven't had to "chase" the ship to do a service call.

Mike Menne can be reached at mike@electronicsystemssupport.com for questions or comments.

A New Lighting System for Bad Homburg

The Kurhaus Bad Homburg with a capacity of 750 spectators opened exactly 20 years ago and they are celebrating the 20th Anniversary with the installation of a new lighting system. The lighting concept has been developed between Sascha Burmester, the theater's lighting director, Strand Lighting and our distributor Wolfram Dosch Gesellschaft for Lichttechnik Mannheim. The complete renovation was handled by Wolfram Dosch including the removal of the old system and the new installation.

Strand Lighting systems were chosen to control both the new theatre production lighting system and the houselights. A 530i console, and a 510i backup are networked and connected to SLD96 and SLD48 dimmer racks over a ShowNet network. The SLD dimmer racks were all supplied with dual processors along with 96 3KW, 24 5kW dimmers for production lighting and 10x5kW dimmers for the houselighting.
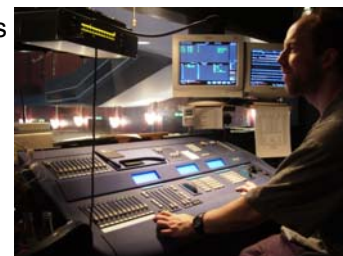
Lighting Director Sascha Burmester working at his new console

The network has 24 cat 5 cable runs to the different areas of the theatre (dimmer room, galleries, bridges, stage). All network cables terminate at a patchfield in the central control room where they are connected to a 24-port Hub. In doing this the system has been cleverlydesiged to allow it to be easily extended in the future.
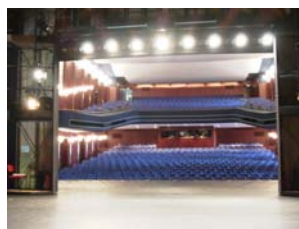
Strand Lighting SN110 nodes located on the galleries and bridges convert ShowNet network signals into local DMX for colour changers and other DMX devices. SN100 nodes are provided for remote video either on stage or in the auditorium. They may also be used to provide additional DMX outputs on stage or to provide the lighting director with an analogue fader panel for remote submaster access. Further extending the network the designer can also make use of our new xConnect Designer remote key allowing the designer to use a notebook for remote system access anywhere on the network from their notebook PC.

New Shows Under Strand Control

Strand will be in control of *Miss Saigon* this summer - on opposite sides of the world!

Strand have been involved with this show since the very first production opened at the Theatre Royal Drury Lane in London in 1989, with a Galaxy running the conventional lights. In 2001, control for David Hersey's design was rationalised at the start of the show's British tour, with a Strand 520i replacing the four control systems required by earlier productions; that production opened in Manchester and toured the UK for two years. The entire production has now been shipped to Japan, where it will open at the Imperial Theatre in Tokyo in mid-August then run until the end of November. The production was originally programmed by Rob Halliday; Dave Sadler will look after the Tokyo transfer.

Already up and running is a new, smaller-scale production of *Miss Saigon* now playing at the Theatre Royal in Plymouth before embarking on a British tour of the venues that the 'big' Saigon wouldn't physically fit into! The new design replaces the 'real' helicopter with an animated video sequence of the helicopter, to be replayed from a High End Catalyst video system. This and the rest of the rig, designed by Jenny Kagan, is running from a 530i console programmed by Rob Halliday.

Strand will also be in control of a number of shows opening in London this autumn, including *Mary Poppins*, the stage adaptation of the legendary film which is being lit by Howard Harrison and programmed by Rob Halliday, *The Woman In White*, the new Andrew Lloyd Webber musical which is being lit by Paul Pyant and programmed by Vic Smerdon, and the return of *Saturday Night Fever*, being lit by Gavan Swift and also programmed by Vic Smerdon.
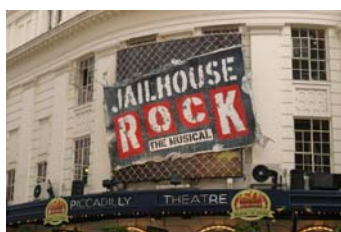
Strand consoles have also been busy running other shows in London including *Jailhouse Rock* (lighting by Alistair Grant, programmed by Dave Sadler), *Democracy* (lighting by Mark Henderson), the Royal Shakespeare Company's *Othello* (lighting by Tim Mitchell, programmed by Simon Spencer), *Suddenly Last Summer* (lighting by Howard Harrison, programmed by Vic Smerdon), *Henry IV* at the Donmar Warehouse (lighting by Neil Austin, programmed by David Plater), *Oleanna* (lighting by Howard Harrison, programmed by Rob Halliday), *We Happy Few* (lighting by David Hersey, programmed by Dave Sadler) and the transfer of *Les Misérables* to the Queen's Theatre (lighting by David Hersey, programmed by Rob Halliday), as well as other ongoing productions.
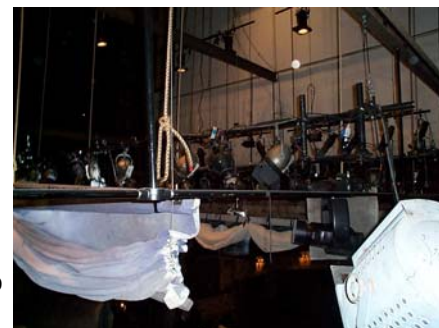
The We Happy Few Rig photo by Dave Sadler

In Australia, Gavan Swift has two productions running on 520i consoles: *A Midsummer Night's Dream* in Sydney and *Sleeping Beauty on Ice*, the latter currently in New Zealand being re-lit by programmer Hugh Hamilton. Hamilton then traveled to South Africa, to move the touring production of *The Phantom of the Opera*, running on a 520i console, from Cape Town to Pretoria. Strand consoles continue to control many of Australia's venues, including the Sydney Opera House and the Victoria Arts Centre in Melbourne.

News in brief:

Strand Lighting France Relocates
Strand Lighting France is moving to a new location in August. The new office will be at:
2 à 6 Avenue Henri Barbusse
93003 BOBIGNY
France

Website Update
Visit our new look Website at www.strandlighting.com among the new features on the site you will find new Quartzcolor spares information sheets and enhanced product information.

New Appointment at Strand Lighting New York
Bobby Harrell has joined Strand Lighting in New York. Bobby a working lighting designer and controls specialist, joins Strand to provide support to the New York consulting and design community. Bobby can be reached at Bobby.Harrell@strandlighting.com .

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Introducing Accent Strand's newest family of Architectural controls

We are pleased to announce that our new Accent controls are now available in North America. Systems for Europe will be introduced at the Plasa show at Earls Court in September. The new controls are stand alone lighting systems that fit standard single gang North American wall boxes. Each station outputs 48 DMX channels with two, four or eight presets. Each preset can have its own unique fade time with all levels and times programmed by the slim infrared remote.

A remote is provided with each station making programming and remote access simple for all users. The remote can be used to playback or record any of the presets available on each station. With a range of 8 meters—25 feet the remote accesses the IR receiver built into

each control station. Up to 8 stations may be linked on a single DMX cable and they can be set up as either single stations in a series of up to 8 rooms or they may be combined into groups of multi– station rooms as needed.

Accent stations are easy to configure with a simple dipswitch to select a desired room and DMX output range in blocks of 48 dimmers. All stations set to the same room will select presets for the room based on a last action selection. Recording a preset on one station in a room automatically copies

63200 Accent 8 Preset station with raise lower controls and IR Remote

the data to any other station within a room. Key features of the new system include:

- ☐ Two, Four and Eight Preset Control Stations with individual preset fade times
- ☐ Raise Lower Mastering
- ☐ Up to 48 dimmers per room, up to 8 stations and 8 rooms per system
- ☐ Room selection by dip switch selection on control station no special programming required
- ☐ Compatible with all Strand Dimmer Racks
- ☐ Wireless IR remote provided with each station for simple programming and remote preset access
- ☐ Secure Fastener Free Faceplates
- ☐ Secure digital control wiring system
- ☐ Fits Standard 1 Gang Deep Masonry box (supplied for all European installations)
- ☐ DMX Output

Accent systems are designed to be flexible and very cost effective for a wide range of installations including schools, churches, restaurants and meeting facilities. Accent will connect directly with all Strand SLD, CD80, LD90, LD24 and DE90 series dimmer racks. The stations may also be used with Act 6, SD6 and CD80 packs but require the addition of a remote station power supply. To learn more about Accent visit our Website at www.strandlighting.com to download an application guide and a data sheet.

Console Programming Tips, Summer 2004 *by Rob Halliday*

Introducing 2.8 available in August

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. 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

[UPDATE] [SHIFT] [TRACK/QONLY] [*]

which would appear on the command line as

[UPDATE] [TRACKBACK] [*]

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:

[UPDATE] [TRACKBACK] [QONLY] [*]

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:
[1] [UPDATE] [CUE] [20] [TRACKBACK] [*]
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 example, 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 will be released in August and visitors to PLASA will be able to test drive the software on the stand at the show. As always, it will be freely download-able at the Strand website, www.strandlighting.com.

"Twenty Four": Art at Logan International Airport *By Stephen Gambino*

Ever since the first settlers to America made Boston the

hub of commerce in New England, Boston has been the major point of arrival and departure for goods and people. In the 21st century, Boston's Logan Airport Terminal E is the international gateway for today's travelers. As part of a $320 million dollar make over, designed by New York architect Skidmore Owings & Merrill, an animated piece of public art running the 680 foot length of the building was integrated into the design.
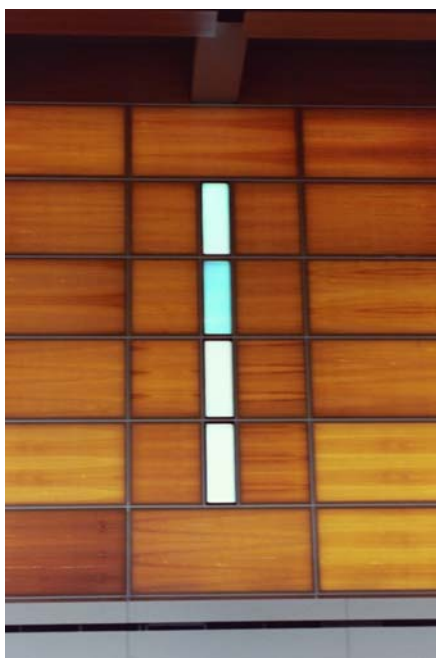
The piece entitled "Twenty-Four", by artist Paul Housberg,

animates the textured wood wall in the ticketing hall, and provides a subtle reminder of the movement of time around the world.

The piece entitled "Twenty-Four", by artist Paul Housberg, animates the textured wood wall in the ticketing hall, and provides a subtle reminder of the movement of time around the world.

 "Twenty-Four" is composed of 24 vertical openings, or portals, rhythmically spaced along the towering wall above the 96 ticketing counters. Each portal is made up of 4 individual colored glass cells.

 "Illuminating each glass panel from behind are lights programmed to brighten and dim in patterns that echo the rhythms of travel. Like the departure gates of the International Terminal, these portals represent entry points to the 24 time zones that circle the globe. An international journey is time travel", Housberg says, "and the movement of the lights in "Twenty-Four" is a metaphor for time".

Housberg worked closely with Sal Maratta of Century Lighting Service throughout the project. From assistance in choosing the proper equipment to the final programming of the project, Maratta spend many hours turning the artists ideas into reality. Housberg used a Power Point presentation to communicate how the 96 individual glass panels were to move, fade and transition, Maratta decided that the Strand 520I show controller would be the best way to accomplish the artists intentions. 2 DMX inputs were designed into the building at optimal viewing locations, and run back to a CD80SV dimmer rack with 96 dimmers. Pre programming was done off site on a 300 series console to save time. Once on site with the artist, adjustments were made to fine tune the design.

Sinewave Dimming Demand Grows

Strand Lighting is pleased to announce that they have won three new Sinewave Dimming projects in North America. All three projects chose Sinewave technology to give them state of the art lighting control.

Nashville Symphony Hall

Drawing inspiration from European-style concert halls, the building was designed by architect David M. Schwarz, Paul Scarbrough of Akustiks, and Joshua Dachs of Fisher Dachs and Associates. The hall will have approximately 1,900 seats. These are arranged in a shoebox configuration with space for 115 musicians on stage, 140 choral seats behind

The windows in the performance space can be seen in this rendering

stage, and two balconies. There will be two rows of tier seating along the parallel walls, and a series of private boxes complete with anterooms on a "founders" level. There will also be classroom space, office space, a banquet room, and a "green room" One of the most unusual features planned for the hall is the decision to introduce natural light from over 30 windows .

The lighting systems designed by Richard Hoyes of FDA includes 350 Sinewave dimmers in the system all controlled by the latest generation of 500 series consoles. The system utilizes wireless Ethernet for both handheld remote control and has a wireless notebook computer for remote video.

San Francisco Conservatory of Music

The Conservatory of Music in San Francisco provides comprehensive musical training for students from around the world. At their new facility at the Civic Center in the heart of San Francisco they will have both new performance and training facilities.

Kirkegaard Associates the acousticians for the facility worked closely with Auerbach, Pollock and Friedlander theater consultants; to create spaces were music can be

enjoyed and appreciated. To help create the quietest possible spaces the design team chose Sinewave dimming for this project. Noise control throughout the facility was critical and they concluded that SST dimmer modules would deliver the performance that they required.

The acoustic design team for the project was led by Larry Kirkegaard and Ed McCue. Len Auerbach was the principal Theater Consultant with Jason Davis as the project manager. Auerbach and Glasow did the architectural lighting design.

Toronto Opera House

The Four Seasons Centre for the Performing Arts, designed for the Canadian Opera, will be a 2000-seat theatre specifically designed for opera and ballet. The design team for the project includes Jack Diamond and Gary McCluskie, Diamond and Schmitt Architects, Shaili Patel and Lana MacInnes of Mulvey and Banani International, Electrical Engineers and Josh Dachs and Richard Hoyes of the theatrical consulting firm, Fisher Dachs and Associates.

The lighting system for the theater includes 500 series consoles and ShowNet nodes is the largest Sinewave system sold to date with over 1000 SST Sinewave dimmers. Like the other spaces in this article silence in the performance space was important.

The traditional, four-tiered European-style horseshoe-shaped auditorium will be lined with resonant wood and plaster. Seating configurations were designed to provide

Rendering courtesy Diamond and Schmitt Architects and AMD

unparalleled intimacy between the audience and the stage, with every seat computer-tested by FDA for the best possible sightlines. A large, flexible orchestra pit will permit the presentation of the full range of opera repertoire, from chamber pieces to full scale 19th and 20th century works. Full rear and side stages, generous dressing rooms, wardrobe and instrument storage all will allow three full productions to play in repertory.