

GETTING CLOSER TO



BY MICHAEL FILER | PHOTOS BY ROY TIMM



NINE INCH NAILS

Recent Nine Inch Nails tours have become benchmarks in the production industry, showcasing complex designs incorporating lighting and video seamlessly. Trent Reznor's music is angsty, and can go from clean and delicate to a super-saturated sawtooth wave in an instant. These moods and transitions ultimately inform the content of what we see happening on stage, and *PL&P* caught up with a stop on the most recent Canadian leg of the *Lights in the Sky* tour at Copps Coliseum in Hamilton, ON to see how it all comes together.

Jason Bullock is the show's resident Lighting Director, implementing what Roy Bennett and Reznor initially conceived and negotiating the evolution of the rig over time.

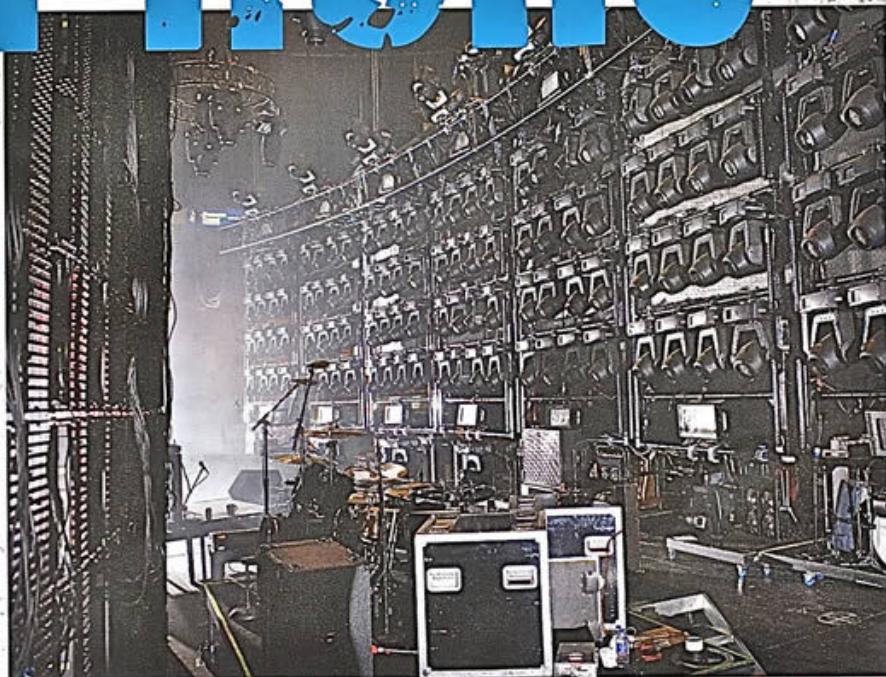
"The original product that we'd left with in July 2008 was what Trent, Roy, and everybody had come up with - and it was a wonderful product," Bullock says. "Since that time period, we've done 70 or 80 shows (as of the Hamilton concert). We tried some different things in South America, in Mexico, and in a whole bunch of other places, and we found some things that worked better and some things that didn't work better. We've now taken that rig that Roy made, which was absolutely fantastic, and added to it."

The level of Reznor's involvement with the lighting design is evident when Bullock explains: "Trent's reconceived some of the looks for some of the songs after performing them live and said, 'Let's try a different colour; this one doesn't feel right; can we do something else with it?' It's a continual evolution of what's here, and with Roy's schedule he unfortunately can't be here all the time. This is my third tour out with Trent, and he knows that it'll be done and it'll be done right - and done in a way he expects. Roy will always make it happen, and Trent knows that fortunately I can make it happen in that same vein."

Conventional Lighting & LEDs

Before we get into the intense panorama created by the production's video content, we need to give a nod to the rig Bennett designed, with tweaks, that is responsible for so much of the NIN live visual experience. The rig places fixtures upstage, downstage, and in the wings - as well as overhead. This allowed for several spooky moods created during the show achieved through uplighting, backlighting, and sidelighting with cold blues, sexy reds, and even some sickly chlorine yellows. Haze and fog generated from four REEL EFX hazers and four High-End Systems foggers were triggered sparingly, achieving a colder, wispy look instead of a billowing feel.

The gear list is exhaustive, but the rig includes VL2500 spots, Atomic strobes, and Atomic colour scrollers. There are VL3000s for side light,



LEFT: LIGHTING DIRECTOR JASON BULLOCK AT FOH WITH GRANDMA CONSOLE.
ABOVE: THE REARMOST BANK OF LIGHTING FEATURES 124 MARTIN MAC 300 WASHES.

and 10 VL2500 wash lights, which are on the floor. There are in the neighbourhood of 100-plus full white LEDs, which are all custom-built in banks on the side and in the back. On the floor, there are another six white Philips Color Blasts, two for each person for key lights, and there are another six RGBs for key lights. There are 20 Martin MAC 700s for overhead washes and five VL3500 hard edges which are used for band specials.

According to Bullock, the rig has gone through a couple of incarnations. A US leg, which lasted for three-and-a-half months, initially had Bennett, and programmers Shawn Cagney and Corey Fitzgerald doing all the video through a Hippotizer and working with Montreal's Moment Factory, who is responsible for all the interactive video. Since then, the system's been modified to an ArKaos - originally only used for the band when it drove the video.

Cueing Up A Little Differently

The show starts out white, or with very light colours: light blues, etc. Very saturated and very deep reds and blues climax the first half at a song called "gave up." An electric section follows with a screen that comes down in front of the band. This electronics section featuring only keyboards and sequences is run through the ArKaos system, which is run directly via MIDI back into the servers, so the bandmembers are controlling all the video.

Both screens come down for the following *Ghosts* section - all instrumental and featuring a marimba and other assorted unconventional

UPSTAGING INC. CREW

CREW CHIEF: Joshua Levin
MOTION CONTROL: Richie Steffa
MOVING LIGHT TECHNICIAN: Dawn Borsella
DIMMER TECHNICIAN: Josh Wagner

instruments culled from a 36-track recording of all-instrumental NIN. The show features four selections from this more acoustic set. The last half of the show consists of the well-known and venerable NIN hits, where intense lighting, video, and interactive content all come together.

More On Multimedia, MIDI, & Moment Factory

"MIDI is actually sent from FOH to control the different parameters that are being affected for a lot of the video that we use," says Bullock. "The Moment Factory machine has a set of cues in it, and this actually goes through FOH here, and sends the MIDI notes that actually control the display. They set the actual parameters and how said parameters react to sound or to the laser being broken.

"At other points in the show, some of it's manual, and some of it's run by the guys in the band," Bullock elaborates. "There's a song called 'only' in the main set where both screens are down, and Trent does a few songs where he performs in between the Stealth screens. There's an infrared laser on the downstage truss that shoots down and as he breaks it, it actually fades out the video wherever he breaks the laser. As he walks, the video goes to black right where he is, so you can see him through all the static and through all the imagery. Later on,

Nine inch Nails

EQUIPMENT LIST

in the encore, during a song called "echoplex," he actually comes up and he turns on and off mute buttons on a sequencer whose GUI is actually displayed and controlled on the screen."

The effect is an almost indescribable melding of music and graphical genius. I was shaking my head in disbelief at that point in the show, but even this was outdone by Reznor literally wiping peaceful forest images off the Stealth screen from behind — just like wiping off a blackboard. Not to sound clichéd, but you just have to see and hear it to believe it.

Three Layers Of Screens

The first and the second screens are Stealth screens by Element Labs. Each of these has 200 tiles — so 400 total between the two. Upstage of that is a V9 wall, a more conventional video wall. "We use the three of them at a couple of points in the show as an entire canvas," says Bullock. "We can have part of one image on one, part of one on another, and the last part on the third — and you see the band through it. It allows us to do a lot of things with depth, where it goes from being video, fading in to where you can see the band, and then coming back out. All of those are moved by a Vario lift system, run by a Vario operator upstage left. Our stage manager usually deals with the actual control and telling them when to go."

Cues have been worked out over time. Some come from Reznor and the



ABOVE: BOTH ELEMENT LABS STEALTH SCREENS VISIBLE AND BEING POSITIONED VIA VARIO LIFT SYSTEM.

musicians onstage who actually say "we're done"; others are visual cues that intimate "they've just finished that guitar line at the end — start the screen!"

Elements Of Spontaneity & Design Change

Reznor does swap out certain songs in the set list, but generally, the beginning is mainly lighting with not so much video, the middle sections are video-intensive, the fourth section is all interactive video using every effect available, and the encore is broken out to contain sections from each.

"Trent is always looking for more input," says Bullock. "In the times that I've worked for him, this tour and 2000, Mark Brickman designed it, and Roy Bennett came in and redid it. I came in with another programmer; Rob Smith and I directed that for him back then. In 2007, Paul Nomandale was working on it; he ran into other things he had to work on, so I took over, designed it, programmed it, and operated it. For 2008 and moving forward, Roy designed it, did all the layout, did all the programming, and as soon as I was done with working on a cruise ship, here I was — back with the tour."

Jason Bullock On Roy Bennett's Design

"When I first saw his work starting back mid-'90s, when I first started touring, he was one of the first guys I ever saw that could always take one light and make it look good. I learned over the years that he is a designer that has

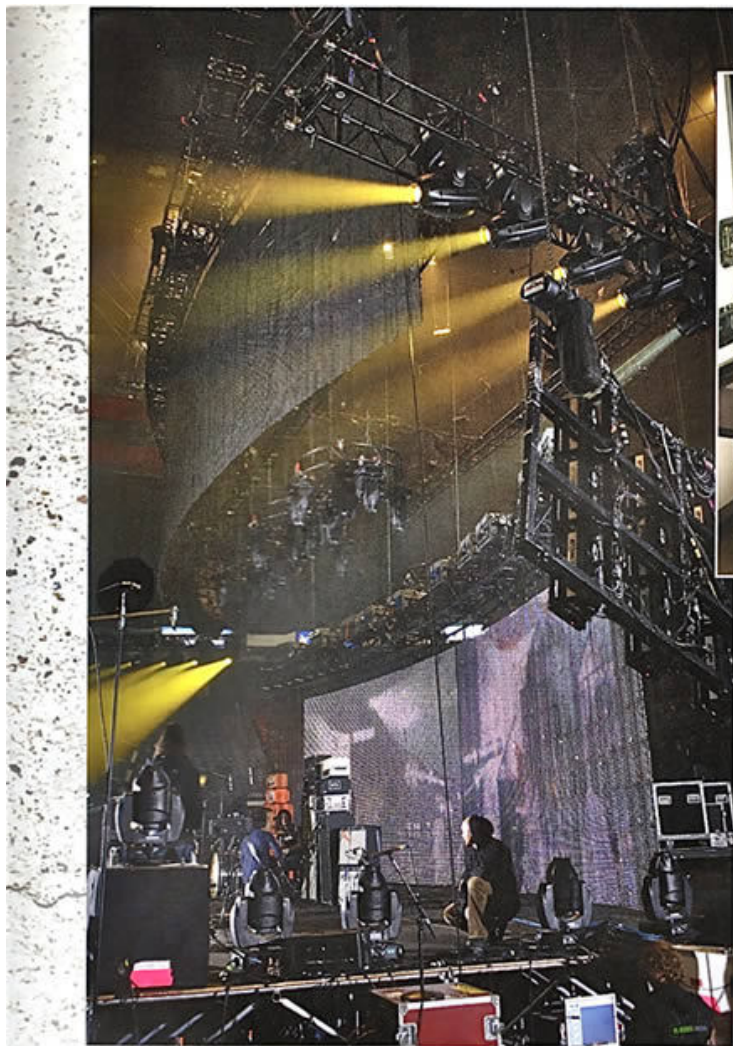
- 1 MA grandMA
- 1 grandMA Case
- 3 grandMA Network Signal Processor V2 (NSP)
- 2 Cirro Lite Strata Mist CS6 Hazer
- 4 F100 Fogger
- 4 F100 DMX Remote
- 2 Reel EFX RE II Fan
- 5 Tyler Truss: Heavy Duty 20.5" x 20.5": Black 160' ID 7.4° Circle Section
- 2 Smartflow Frame: 132" w x 62" h 2 rungs x 4 rungs vertical (NIN)
- 7 Torm Ladder: 74" w x 126" h 4 Rungs w/27" spaces (NIN)
- 4 ETC S4 36°, 575w
- 6 Altman Micro Ellipse
- 6 Four Light Mole: TMB DWE 2 x 2
- 2 Clip Light
- 8 DMX Data Split
- 3 ETC Optosplitter
- 1 Motion Labs 208v Four Socapex AC Distro (24)
- 1 Motion Labs 208v Eight Socapex AC Distro (48)
- 1 CAE 110/208v Soc Ac Distro (96/48)
- 10 ClearCom Double Muff Headset
- 10 ClearCom RS 501 Single Beltpack
- 2 ClearCom CS 222/702 Base Station w/rackmount kit
- 40 Martin Atomic Color Scroller

- 2 Martin Atomic Color Scroller
- 9 Martin Atomic Color Power Supply (8 channel)
- 124 Martin MAC 300 LED Wash
- 16 Vari*Lite VL2500 Spot
- 12 Vari*Lite VL2500 Wash
- 8 ColorBlast 12 Touring, Black
- 8 iW Blast 12, Black
- 2 City Theatrical PDS 750 Colorblast Power Supply: 12 unit
- 89 2' Smartflo White LED
- 15 2' Smartflo White LED 8 Ch PSU
- 42 Martin Atomic 3k Strobe
- 2 DF50 Hazer
- 1 Tomcat 20.5" x 20.5": 4' Black
- 4 Tomcat 20.5" x 20.5": 8' Black
- 3 Tomcat 20.5" x 20.5": 10' Black
- 4 Tyler Truss 14" x 24" HUD Truss: 8' Black
- 11 Tomcat 12" x 30" Ballroom Truss: 8' Black
- 5 Tomcat 12" x 12": 10' Black MK1 Tower
- 9 Tomcat 12" x 12": 8' Black MK1 Tower
- 2 Tomcat 12" x 12": 5' Black MK1 Tower
- 2 Tomcat 12" x 12": 4' Black MK1 Tower

- 10 Tyler Truss: Medium Duty 20.5" x 20.5": Black 160' ID 7.4° Circle Section
- 5 Tyler Truss 12" x 12": Black 5' OD 180° Circle Section (Ladder Style)
- 1 CAE 208v Soc Ac Distro (48)
- 7 HES Showgun
- 21 Martin MAC 700 Wash
- 7 Vari*Lite VL3500 Spot
- 12 Vari*Lite VL3000 Spot

VIDEO

- 2 Element Labs 50' x 16' Stealth Walls With SPI Processors
- 1 Barco 50' x 16' D7 Wall With D320 Processor
- 4 Green Hippo Hippotizer
- 1 Barco MatrixPro 8' x 8'
- 1 ArKaos Media Server
- 1 Raritan Paragon II KVM System
- 4 Moment Factory Servers For Interactive Media
- 1 MOTU MIDI Interface
- Various IR Emitters/Cameras And Lipstick Cameras For Interactive
- Various IR Cameras For The Survivalism Shots
- Various Netgear Gigabit Switches



LEFT: RIG FROM STAGE LEFT WITH CONTENT ON-SCREEN.
 ABOVE: VIDEO CONTENT MANAGEMENT BY MOMENT FACTORY OF MONTREAL.

impeccable timing, a great taste for music, and a great taste for the artist he was representing. Lighting is such an opinionated thing — what looks good and what doesn't — and a big part of it is being able to read your artists and understand what they're going to look for. With Trent, there are things he's going to want. The show needs to have some balls; it needs to be big, and yet it needs to have contrast. Trent's lighting is meant to emphasize his music and to provide a texture to perform it on. Roy has always done that for him, and wonderfully so, and I'm just an extension of that."

Performing Control

Bullock is being humble. He is a marvel of a performer himself at FOH — thrashing and sweating to the music and working his grandMA the way Keith Emerson works a Hammond B3. I asked him what his signature on a NIN live production is, to which he succinctly replied: "... being a little more aggressive, and adding to and taking from some of the new art direction. A lot of stuff that I've added in or tweaked this time has got more balls — this is the part where the crowd is reacting. We've added in a couple of Moles, so now when everyone starts clapping at a certain section we can play along. A lot of what I feel I add to whatever show I work on is the live performance element. It's being able to read what people like, and especially being able to read where the artist is comfortable and where he's not — and just a sense of timing for it."

Bennett incorporated the grandMA into the design, possibly because programmer Corey Fitzgerald has some aptitude with the console. Initially, about two-thirds of the show was done with time code because there was a month of rehearsals to work out the show in detail. Bullock mentions that many of the additions made later are run manually on top of the pre-existing programs, rather than coding them.

Bullock more or less inherited the platform and made an easy transition. He's worked with the first generations of media servers and LEDs, and makes confident adaptations: "I'll make it work — whatever it is."

He has found the grandMA to have certain strengths that allow him to do his job the best way possible. "Doing our show in South America and everywhere else, I found that the cloning functions in this console are, hands down,

absolutely wonderful," he says. "Trying to write quickly off the cuff is a little bit more difficult, and trying to write FX engines and stuff like that takes a little more time. Everybody has their own way of getting the proper timing. At the end of the day, it's a control surface to control a bunch of parameters. Whether you put record first or store last, you know that part is just a matter of syntax. The whole catch is the bottlenecking. The faster you can get your thoughts and conceptions out and into the console, the less time you have to spend explaining it to a programmer or anyone else. It's a nice plus to have been given such a wonderful palette to start with, and to be given such a great show in there that just needed a little bit more attention."

The attention factor with the NIN show is pretty crazy. All the key lights for each musician, since there are no spots, are all manual when they arrive onstage. Moles and strobe lights all have to be overlaid, Bullock tells me. "There are a lot of hits, a lot of pushes, and some of the songs just flat out don't have time code," he says. "It's just a free runner. There are things that I still have to run by hand. Newer cues that Trent has decided to change or augment have been rewritten out by hand, long style — verse, chorus, bridge, etc. as you would operate it because I have no desire to really spend the time to put in another code when it gives me something to operate as well. As time has gone on, instead of having to have him stop and play the time code, it's been easier to go through and tweak this list or that list. It's worked out better to just say, 'Alright, this part of the song runs fine, just let me add in stuff here or there so that I can run things manually on top of it.'"

There is lots of room to add some spontaneity to a very complex show. "A lot of Trent's music and a lot of Trent's look is a blend of the organic and digital," says Bullock. "He likes quantization; he likes the feel of some electronic things, and yet a lot of the sounds that he spends some serious time making are all done through strings. There's a natural, organic feel and reflection to it."

So what are some of the highlights of this gig? Bullock is enthusiastic about his support from production suppliers Upstaging Inc., for one thing: "Upstaging's gear is flawless, the people are wonderful, the support is hands-down without fail — and nobody's better as far as I'm concerned."

It seems like the greatest challenges of the over-the-top NIN live production are also its greatest rewards. "It's interesting," Bullock says, "that we're at the cutting edge of technology and we still have to sit in a room and say, 'Well, how do we make this work right?' Part of the reward for being out here is figuring it out. People have seen the Moment Factory content and are incredulous about how can that be done. It took us seven months to figure out how to make it work right, and how to not have it crash. We've been through the difficulties, but now we carry around a seven-truck show of stuff and people walk out every night thinking, 'I don't know what the hell that was but, boy, it was great!' Honestly, I wouldn't have it any other way. As far as I'm concerned, there is no project that I would prefer to be on than this."



Michael Filer is the Editor of Professional Lighting & Production.