

# Nine Lives

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What is most surprising about Roy Bennett's production and lighting design for the latest Nine Inch Nails tour — the designer's fourth with the band — is what you don't see until about halfway through the show, but we'll get to that later. The other parts of the Lights In The Sky tour — in support of Ghosts I-IV — don't exactly lack any visual stimuli either for a band that prides itself on experimental media in both sound and sight, fronted by singer and songwriter, Trent Reznor.



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Bennett is no stranger to Reznor's particular brand of creativity. “For the last tour, my original design went out, but over the course of the year there were other designers that contributed — Trent is always in a progression state with stuff — based on timeframe and availability,” says Bennett. “My original was shifted a bit. The last thing they did was experiment with elements on an interactive level, triggering with MIDI via instruments.”

Working off that theme as a starting point, Bennett got to work on the more recent design but with some new departures from the usual Nine Inch Nails outing. Previous tours have had three main sections, but this one added a fourth acoustic set in the middle. “We expand on it and take it to another level,” says Bennett, adding that Reznor wanted a lot more video, as well as more interactivity with that video. “We started there and came up with a concept of layers of screens,” adds Bennett.

For the first section — still no screens yet — a wall of small, custom-built Martin Professional MAC 300 LED fixtures — 112 to be exact, in an array of seven 4×4 panels that can move up and down — face toward the audience, providing a variety of effects using movement of the fixtures themselves. Sometimes, the fixtures do “the wave” all in green or in a red-white combination, and other times, they undulate in a timing that resembles a sort of doubling-back ripple effect.

Cory FitzGerald, lighting programmer for the tour, notes that there are also custom bright white Saco Smart Flow LED fixtures built into the trussing between the MAC 300s. “We got some really cool effects out of this setup,” he says. Sitting above this are five Syncrolite 5X/B units, also facing the audience and used as blinders.

Bennett uses Philips Solid-State Lighting Solutions iW Blasts and ColorBlasts for uplighting of the band and to avoid any direct or harsh lighting. “I like to call them beauty lights because they're bright enough but not too bright,” says Bennett. “They give

full spectrum but don't use amber. It's a tungsten level and gives slightly more pink, but it's very flattering as far as photography.”

Many of the songs are set to a click track, “so they have timecode to set the cues to,” says FitzGerald. “Other songs that are not set to click are played back live every night. During the acoustic section, each band member is playing in an orchestral style, so we lit them sparsely, and each person can be highlighted as they play.” Two MA Lighting grandMA consoles are on tour for the lighting department.

Additionally, Bennett uses a setup of Vari-Lite VL3000 Spots, and VL2500 Spots and Wash fixtures, as well as Martin Professional MAC 700 Wash and Wash XB units. Martin Atomic Strobes and Color units round out the lighting rig. Lighting programming took place prior to rehearsals at [Upstaging](#), with five days in the facility's pre-viz suite, using ESP Vision for preprogramming and tweaking of the basic rig. Jason Bullock is the current lighting director on the tour.

“There were huge challenges for this show,” says FitzGerald. “Getting technology to talk together that has no business in the same room is always tough. The audio guys and backline guys did an army's worth of work every day to get the show up and still had time to send us all the information we needed to make the interaction between music and technology work. I'm not sure that anyone has done a tour that's this intensive with interactive technology, but it was really worth it. For a band that's as technology-conscious as they are, there really isn't any other way.”

Video Transition

About halfway through the show, a 50'×16' Element Labs Stealth screen descends extremely far downstage — just 6' from the edge of the stage — and in front of the band, but the members move in front of it. Here, a highly electronic set is played, with an additional Stealth screen about 12' back, and a third high-resolution Barco D7 screen farthest upstage, all providing that layered look Bennett wants to achieve.

Then the fun part starts. The band moves behind the downstage Stealth screen — but in front of the midstage one — into three full screens of pouring rain and building fog content, Reznor and his bandmates barely discernible through the screens that encompass them. Suddenly, the center section of the “foggy” downstage Stealth screen is “wiped” away, revealing more clearly the band behind. The audience, lulled into quiet by the more ambient music played in this section, including an upright bass, actually gasped when this happened at New Jersey's Izod Center. There are a few moments like this, another done by Reznor “pushing” video away, as well as a crewmember who appears to be erasing the content on the screen with his flashlight.

“Embedding them between screens is pretty ballsy,” says Bennett. “It's such a risk because the audience might think that the band is in a cage and not like it. Trent was into it, although a little apprehensive, but it seems to work. Every time we do something, we're really relying on new technology between tours but using it a new way that maybe no one thought about.”

For all this interactive video, content was provided by NIN's art director Rob Sheridan, as well as by Montreal-based Moment Factory — who also provided a custom server system for its interactive media — and Seattle-based Mode Studios. Other content is mixed live coming from various cameras in and around the stage.

“With the Moment Factory system, we can come up with all sorts of stuff,” says Bennett. “It's an interactive video system; a lot is proprietary — their own stuff — but mostly, it sends their system a signal from the lighting console. Some is triggered from stage; some from the lighting console, some from [Green Hippo] Hippotizers, but then the Hippo is triggered by the lighting console. It's fairly complicated.”

Running all this, notes FitzGerald, involves lots of interconnectivity with musicians, both from MIDI triggers, live sound input, movement tracking, and other gags that allow the video to react to the performance. “In these cases, we use the lights to react to what the video is doing,” he says. “In some songs, we add video elements on top of what we are doing with the lighting to augment the total look on stage. Basically, we are trying to distort the audience's perception, so that they can never really figure out what is happening or where it is coming from. The layering of the video adds a 3D element to the stage where the band is incorporated into the video and really part of the stage. Some of the songs can be very distorting which is exactly what we were going for!”

Sean Cagney, Hippotizer programmer, notes that the video section of the show also consists of the upstage D7 driven by a Barco D320 processor and the two Stealth screens driven by Element Labs SP1 processors, all served by four Green Hippo Hippotizers, with an ArKaos server in place for the electronic set. Additional video gear includes a Barco MatrixPro 8×8 with RS232 controlled by a DMX-to-RS232 Hippo V3 module that can also provide Ethernet and a Raritan Paragon II KVM system.

Another grandMA is networked in for programming of the Hippotizer media servers. “We ran a fiber switch to dimmer beach and had four NSPs living back there split out into the rest of the system,” says FitzGerald. “The Hippos were controlled via Art-Net and lived backstage, with a separate FOH network for [Green Hippo] ZooKeeper control.”

Specifically for this tour, [Upstaging](#) custom built a new DMX-controlled winch called Speedwire that FitzGerald calls “really fast and easy to use.” They are used to move the Saco Highlight battens up and down, as well as the screens. “There are a variety of great looks that came out of just moving things up and down, but the show has a good flow and transitions nicely from look to look, usually keeping the audience unaware of what is happening and how they did it,” says FitzGerald. Rigging also includes Motion Labs-encoded Columbus McKinnon 2-ton and 1-ton motors controlled from the side of the stage. Truss is a mix of custom curved truss from Tyler and Tomcat truss.

Screen moves for the tour are controlled via the stage management crew. The two Stealth curved screens, adds Bennett, were originally designed to be parabolic so they could

eventually form a bowl around the band, “but we ended up with them parallel. The engineering made it too difficult...compound curves get very expensive with custom framing.”

And in case you are wondering just how involved Reznor is with the planning of his band's tour, just ask the programmers. “Trent is very active in the creation of the looks on stage and was hands-on with me at the console getting the timing of the cues to be exactly where he wanted them in the music,” says FitzGerald.

Bennett concludes that Nine Inch Nails fans have come to expect something different, but they also expect not to know what to expect. “People who come to see Nine Inch Nails come to see Trent and listen to the music, but it's always a modern approach to a show — also very atmospheric video, visual,” says Bennett. “It's an experimental album, so it is really risky to play some of those songs in the middle of the show, but they're good about educating the audience, and they will deliver.”

***NINE INCH NAILS'***  
***LIGHTS IN THE SKY TOUR***

**LIGHTING AND EFFECTS**

10 Vari-Lite VL3000 Spot  
14 Vari-Lite VL2500 Spot  
10 Vari-Lite VL2500 Wash  
112 Martin Professional MAC 300 LED  
25 Martin Professional MAC 700 Wash  
5 Martin Professional MAC Wash XB  
38 Martin Professional Atomic Strobe  
38 Martin Professional Atomic Colors  
5 Syncrolite 5X/B  
82 Saco Smart Flow  
36 Saco Highlite  
6 Philips Solid-State Lighting Solutions iW Blasts  
6 Philips Solid-State Lighting Solutions Color Blast  
4 Altman Micro Ellipse  
4 Reel EFX DF-50 Hazer  
4 High End Systems F-100 Fog Generator  
2 Reel EFX RE Fans  
8 Upstaging Speedwire DMX Winch

**VIDEO**

2 Element Labs 50'×16' Stealth Walls With SP1 Processors  
1 Barco 50×16 D7 Wall With D320 Processor  
4 Green Hippo Hippotizer  
1 Barco MatrixPro 8×8  
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

CONTROL

3 MA Lighting grandMA

4 MA Lighting NSP

FOH

ZooKeeper Computer For Content Loading

Raritan Paragon II UST For Server Management