

A full-page photograph of Justin Bieber performing on stage. He is wearing a black fedora, a denim vest over a white t-shirt, and black pants. He is holding a microphone with a red grille and a gold glove on his right hand. He has a tattoo of an owl on his left forearm and is wearing a gold glove on his left hand. The background is dark with some stage lights.

# Belief

## Systems

A top design team  
pulls out all the stops  
for Justin Bieber's  
*Believe Tour*

By: Sharon Stancavage



The far left and right LED screens are often used for full-body IMAG of the singer. At times, they take on the feel of a full-length mirror, says Nick Jackson, of Chaos Visual Productions, the video gear supplier from Los Angeles.

**T**he phenomenon that is Justin Bieber can be easily summarized by the voice of an anonymous woman—not a girl—on a YouTube video of the opening of the star's current *Believe Tour*.

As a barrage of effects is unleashed before Bieber's appearance on stage, a woman says, in a voice awash with awe and amazement, "Oh, my God." It's only the first few moments of the show, and she doesn't realize that many more amazements will follow.

The man behind the production design of Bieber's first touring venture is industry veteran Tom E Marzullo, the self-described "chief, cook, bottle washer, and everything else" on that production. For Bieber's

sophomore effort, the situation changed considerably. "This time around, Justin wanted to involve other people whom he had grown fond of in his time on the road, as well as several individuals involved in his film [*Never Say Never*]," Marzullo explains. The list of collaborators also included many of his vendors: staging suppliers Brian White, of Burbank-based Show Group Production Services (SPGS), and Robert Achlimbari, of Torrance, California-based All Access; Nick Jackson, of Chaos Visual Productions, the Los Angeles-based video gear supplier; Robert Roth, of Christie Lites' Atlanta office; and Mark Grega, of Chicago-based Strictly FX. All were part of Bieber's

first outing, *My World Tour*, and were all integral to the creative meetings.

New to the Bieber team is Jon M. Chu, who directed *Never Say Never* and serves as creative director while Marzullo continues as production designer and tour production manager. Other key members of the team are Chu's associates Cristobal Valecillos and Isabel Aranguren. The directive for the show's theme came straight from Bieber. "Justin said, 'I want it to be fun. It's going to be a lot of people's first concert, so I want it to almost feel like a Disneyland adventure,'" Chu says.

Marzullo says he begins designing by focusing on "the physical footprint of the stage, and then I build from there." The tour's stage is a combi-



## CONCERTS

nation of prefabricated and custom elements. Key to the process was co-set designer Achlimbari. Marzullo explains, "He's just a really brilliant guy and understands so much about how to make that stuff work."

Photos don't really represent the stage's massive size. Overall, it is 60' by 48', with 12' wings on either side. The layout also includes a 40'-long thrust with an 18'-wide stage at the

end. The stage has three levels: 6'6", 14'6", and 22'6". The video wall at the top level extends 18'.

The thrust includes a 40' telescoping stage arm integrated into its floor. It was supplied by ShowRig, a division of SGPS. White explains, "It started with Tom wanting an elevator at the end of the thrust. We integrated one of our 5' telescoping elevators. Then, as the design grew, Tom wanted

another big effect," which became the telescoping stage arm. It appears during the "Fall" and "Be Alright" medley. Based on a Bryan Hartley inspiration, "Eric Pearce [owner and lead engineer at SGPS] designed the telescoping stage arm," Marzullo reports. The arm is invisible until the sides of the basket appear and are attached to the arm's platform.

Marzullo explains, "We have five toaster lifts [from All Access], as well as a center lift that goes from stage level down to the floor, which we use for the piano and a couple of other props that appear during the show. Upstage, we have a scissor lift that goes up to the tallest level of the set." Those moments on the lift aren't just production moments. "When Justin pops out of a toaster, musically we all have to consider how long after he lands do the vocals start," notes musical director Dan Kanter.

Video, in the form of LEDs, is the basis of the entire stage. "From the beginning, the concept was to have a strong video LED product element to the set," Jackson says. "Once Jon Chu joined the creative team, this evolved into a more cinematic design, incorporating large video walls for content and IMAG display. There is a total of six main video walls—the 51'-wide-by-18'-high WinVision 9, a 9mm wall upstage center that can split in the center, as well as two rectangular WinVision 1875s, 18mm walls upstage left and right. The far left and right LED screens are often used for full-body IMAG of Bieber; at times, they take on the feel of a full-length mirror. There are also eight 4'W x 7'H, 9mm panels on rolling carts moved by dancers throughout the show.

"[Chu] directed all the content, edited that content, and supervised Mat Hale, of imag8nineteen, of Los Angeles, who did the graphics for the screen," Jackson says. The images include vintage Bieber footage and brief interviews as well as video VU meters, a coral reef, sepia wildflowers, trees at

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The giant Whirligig from SGPS has a double rotating system with a 16' outer ring and an 8' inner diameter; an upgrade from the smaller one that first appeared on Bieber's 2011 tour.



The show emphasizes the party atmosphere during "All Around the World," with pyrotechnics, confetti, and airbursts.

sunset, and a complex sequence where Bieber is chased by ninja-esque paparazzi during the song "She Don't Like the Light."

The imagery is controlled live by a media server system put together by the Chaos team. "We custom-built the [Green Hippo] Hippotizer media server system, incorporating the Vista [Systems] Spyder to allow full flexibility of routing of any media content or IMAG to any display surface," Jackson explains. "Since this was such a huge visual element of the show, we built in an extensive array of backup devices so that the video would always continue to run in the event of any hardware failure. We brought in Loren Barton to supervise all content programming and to be part of our team to create the content delivery system." On the road, Mark Stutsman directs the IMAG.

Bieber first appears from behind the bifurcated LED wall high above the

stage, wearing Vacuform wings, flying out over the audience, via a proprietary SGPS product called a Whirlygig, which first appeared on the singer's 2011 tour. "Last time we had a small Whirlygig, now we have the giant Whirlygig, which is 16' in diameter," Marzullo notes.

The Whirlygig is more than just a flying machine. It consists of a double rotating system—a 16' outer ring and an 8' inner ring. "Each unit rotates independently of the other—the same direction or completely opposite," White says. "The 16' ring also has four independent winches for the design team to hang whatever they wish underneath. The unit had been used before as a flying platform for other tours; Tom asked to have the lower section replaced with a circular lighting truss. We're also using a new state-of-the-art RF control system, so you don't have to worry about lighting control cables while the unit is spinning."

"The bottom of the Whirlygig has one Martin [Professional] MAC III Profile, four Mac 2000 XBs with the beam kit, and 12 Clay Paky Sharpys, while the top has six Sharpys," explains lighting co-designer and director Chris Kuroda. The Whirlygig moves up and downstage on a double run of SGPS medium-duty KB Effects track truss. It also rotates and has hidden powers, as Kuroda discovered. "The bottom of it goes up and down like a yo-yo," he notes. "When we put the Sharpys, which have those nice little beams, in a nice aerial position and the Whirlygig spins around, it looks great."

Based on the original concept by Marzullo, White says, "[Pearce] designed six custom tracking lighting sleds that are pretty heavy with all power supplies; lights, including several Syncrolites; and tracking trolleys, all in one small space." The sleds allow Marzullo and Chu to break



## CONCERTS

the invisible wall between Bieber and the audience, turning the arena floor into one giant dance club. Two sled tracks run 120' from the downstage edge of the stage. The 10'-long-by-4'-wide units travel on an SGPS Buss Bar KB Effects track truss. "The lights on the moving carriages are powered by a buss bar embedded in the track truss. The buss bar avoids dragging massive amounts of cables to power the lighting," Marzullo says.

The automated sleds give Kuroda the opportunity to light the production

the key lighting, because they're quite a distance from the stage," Kuroda says.

The production also has two parenthetically shaped trusses over the stage. Kuroda notes, "On each side, there are 12 Mac 2000 XBs with the beam kit and 11 Mac III Performances. There are also three short trusses with four Mac III Profiles, four Mac 2000 Beam XBs, and 12 Sharpys over FOH."

For his workhorses, Kuroda cites the Clay Paky Sharpy and the small,

the band Phish, has created an intricate, cue-intensive show. He programmed it on his personal MA Lighting grandMA2 console, with the assistance of his longtime programmer, Andrew Giffin, who is also out with the show. Kuroda admits, "Andrew and I literally program things where we're editing timing to the 1,000th of a second. When we sat down to do this, we approached it as a sort of über-hardcore, very elegantly programmed show."

The team of Kuroda and Giffin—



Bieber turns the arena into an intergalactic spaceship for *Believe*'s opening numbers.

from an endless variety of positions. "The sled tracks run almost the full length of the area, so we can park three all the way downstage where FOH is, we can park them up by the stage, we can separate them and spread them out over the length of the arena, or any configuration you can think of," he explains. The sleds are comprised of 7K Syncrolites, Clay Paky Sharpys, and Martin MAC 2000 Wash XBs with the beam kit. "It has a special insert that you put in place of a color wheel. It makes a really nice tight beam, and it works well for

yet powerful, Martin Mac 101s.

"They're the little guys, they're bright, they're great, and they're spread out all over the place, and we have a million effects programmed through all those things." The units can be found upstage between the rectangular video walls; at times, they resemble the perforations on a strip of motion picture. Aside from the lighting gear supplied by Christie Lites, the Syncrolites are from Dallas-based Syncrolite.

Kuroda, who works with Bieber on breaks from his longstanding gig with

with the assistance of programmer Mark Butts—has brought a sophisticated show to a very young audience. "We don't just throw up a look and then throw up another look. The way things transition from one look to the next, the way it follows the music is through very detailed timing and programming," Kuroda says.

### Effects

"I think that the most impressive part of the lasers is how well we were able to integrate them with the lights," says laser programmer Doug Cenko,

of Strictly FX. There are three custom fabricated lasers on the show; one high-powered RGB laser upstage center, and one each upstage left and right in the wings, in addition to two green diodes located on the thrust. There is a rainbow of lasers in “Believe,” deep purple in “Beautiful,” and a gridded look in “As Long As You Love Me.”

Pyro, in the form of gerbs and sparks, appears during the opening; during the first song, “All Around the World,” the audience gets a surprise in the form of confetti airbursts. Grega explains, “It’s confetti in a different way. It really is festive because you get the pop, the visual, and then the confetti comes from nowhere.” Chu adds, “We go pretty

out machines, we swapped out ducts, we swapped out fluid, and decking had to be changed out. Finally, Tom came up with the idea of adding Plexiglas to the front of the stage so the fog didn’t roll over, and it worked perfectly.”

A pyro waterfall appears in “Believe” with a creative twist. “For Justin, we put the waterfall on the Whirlygig, so it is actually spinning,” Grega explains. “We haven’t done it like this before, only because generally there isn’t a structure like the Whirlygig in a show. Once we saw that structure and saw what it could do, we realized that was a perfect place to do it.”

In the finale, “Baby,” Grega says, “There’s a lot of pyro going off—

stick with it,” he says.

The 24 Clair i-5 cabinets are hung at a trim height between 36’ and 42’, an arrangement that is similar to what Bieber had his last time out on the road. Mack notes, “There are over 100 rigging points and a lot of special effects, a lot of moving parts, and a lot of video—that’s one of the reasons we have to get the PA up so high. Otherwise, the audience would be looking at two large speaker enclosures in the middle of the video screens.” There are also i-5bs and i-3s in the rig, plus amplification from Lab.gruppen.

As for the Profile, Mack says, “It’s small, it’s versatile to a point, and it’s easy to set up and break down. At the end of the night, it’s down and packed up so quickly that I’m probably the first one to shower.”

Although the Profile has ample processing abilities, Mack doesn’t make use of most of them. He confesses, “I use very few plug-ins—just a couple of reverbs, a delay, and a chorus.”

For his microphone package, Mac relies on a mix of old and new gear. Bieber continues to use a Crown Audio CM-311 headset mic. Mack says, “It’s an incredible mic, and the feedback ratio—you can literally walk in front of the PA, and it won’t feedback. It’s incredible. I have nothing but high praise for it. It’s done me well.” For his handheld mic, Bieber is on a Heil Sound RC 22 as well as something new: “We brought in The Fin from Heil, which is like an old ‘60s- or ‘70s-style mic. It’s a big square mic with a red LED in it that lights up. That mic sounds absolutely incredible.” The Fin, which has a tight linear cardioid response pattern, is featured in “Die in Your Arms.”

On stage, a variety of manufacturers are represented. “I’m using some Heil microphones on the snare drums. I have Sennheiser e 904s on the toms and Shure SM81s on the high hats.

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hard in the beginning of the show during ‘All Around the World,’ because we wanted to create a huge party for these kids. Maybe it’s their first party, and we immediately say, this is something new you’re going to experience.”

During “Catching Feelings,” the audience experiences what looks like thick dry ice fog wafting over the second level of the stage, setting the scene for a mythical, underwater adventure. Grega explains, “It was definitely a mandate from Jon and Justin. It was in all of the scripts. It had to be there, and it had to look really, exceptionally good.” Creating a dry ice look without dry ice—which doesn’t last as long as was needed for the song—was something of a challenge. “We had issues finding the right equipment and the positions to be able to achieve that effect,” Grega notes. “We swapped

easily 200 pieces, maybe more. It’s all comets and mines, and it’s huge. We have the single best pyro guy on earth doing pyro here, Reid Nofsinger, from Strictly FX,” Kuroda says. Nofsinger, a perfectionist, is still working on the details of the production. There’s also a new electric snow-dispersal system used during “Fall,” as well as eight CO2 cryo jets and eight flame projectors featured in “Never Say Never.” “A wall of flame goes up, and then he disappears. Your retinas seem to be imprinted with that red glow, since it’s so intense,” Grega says.

### Sound

Returning to work with Bieber is Gordon Mack, who is once again behind an Avid VENUE Profile console, supplied by Clair Global, of Lititz, Pennsylvania. “When you find something that works, you tend to



Reid Nofsinger, of Strictly FX, programmed the pyrotechnics for the show, which include more than 200 pieces in the “Baby” finale and a waterfall of fire on the Whirlygig during “Believe.”

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Everything is pretty much nuts-and-bolts plain,” Mack says.

When the telescoping stage arm gets out in front of the PA, it can be problematic from an audio perspective. But, Mack says, “Overall, it’s pretty easy for me to move around the arm. I just pan Justin to the side he’s not on and turn his vocal up. It’s not like people on the opposite side can’t hear him, because he’s the biggest thing in the room. You’re going to hear him. And, at that point, it’s an acoustic set, so they’re a little more attentive. So I can get away with panning him, and they don’t notice or don’t care.”

Bieber likes to interact with his fans, which can also be acoustically problematic. Mack says, “Justin has a tendency to bend down and shake the girls’ hands, and, as he’s bending down, they are all screaming, and I get all that in the mic. Sometimes I think it is feedback, because of the

frequency that they’re screaming at, but it’s not.” Key members of the sound team include Pro Tools operator James Stassen and monitor mixer Alex Macleod.

### Traveling

In the end, Marzullo repeated what he did for Bieber’s last tour: create an enormous looking production that contains many fewer trucks than one might imagine. He confides, “For me, my goal is always to take a truckload of equipment and make it look like five trucks. We have 18 trucks on this tour—17 trucks with one as a leapfrog that goes forward.”

Additional key personnel includes Vicki Huxel, tour coordinator; Jennifer Laski, production assistant; Bill Thompson, tour accountant; Steve Sullivan, director of venue security; Terry Cooley, production and stage manager; James Gould, floor manager; and AEG production

manager Jon Baden. “I have probably the best crew I’ve ever had in my 40 some years of experience. We all get along, and it’s a joy to be out here,” Marzullo says.

The tour also gave birth to Marzullo’s new firm, Out of My Mind Creative Services, which is based in Atlanta. It is an extension of Marzullo’s decades of experience and offers arena, theatre, corporate, and special event design and production services. Joining him at Out of My Mind is Kuroda, as well as several other industry veterans to be announced at a later date. The company will blend seasoned experience with cutting-edge creative and production talent, he says. “We’ll be announcing several new projects in the first quarter of this year,” Marzullo adds.

Bieber recently extended the *Believe Tour* to August 10 in Atlanta. 📶