Case Study: Innovative Show Design
Setting the Stage for Success

Mansion Poker Dome at Neonopolis entertainment complex in Las Vegas.

Using computer-aided design, the Innovative Show Design team plans and oversees the building of game and sports broadcast sets that keep players and fans coming back for more.

Chris Runnells, Justin Garrone, Mark Dowling, and Nate Mitchell form the management team at Innovative Show Design (ISD), a scenic and lighting design firm for broadcast TV based in Orlando, Florida. The team works tirelessly to design and build some of the most cutting-edge sets in the United States for events such as The Doubles Poker Championship and Super Bowl XLIII.

Playing their cards right

The precursor to ISD, sister company Show Partners, was founded in 2002 with a focus on broadcast engineering. Show Partners oversaw the design and set building for Fox's MANSIONpoker.net Poker Dome Challenge. The team built an entire facility called The Poker Dome

at the Neonopolis entertainment complex in Las Vegas, gutting three movie theaters and then building the set from scratch. For this creative take on the game, the live audience could see the players, but the players were unable to see or hear the audience. Mansion Poker Dome Challenge had a successful 43-week run producing shows that were taped every weekend and aired every Sunday.

Since new shows were produced on such a quick timeline, the production process needed to be streamlined. Runnells, Garrone, Dowling, and Mitchell collaborated with other teams on the intensive project, using Vectorworks® Spotlight to plan and coordinate the design. "We worked with the program very heavily because we were doing the file work for the scenic and lighting designers, doing all the coordination, and working along with the contract builders to get plots back and forth as well as the engineering for stages and soundproofing. From the architecture to the entertainment side, we did a little bit of everything," says Garrone.

By 2007, Show Partners' success with this show as well as others spurred such a great need for an expanded lighting and scenic department that the company spun off ISD, and gave Runnells majority ownership. Since that time, the team at ISD has put together hundreds of shows, many of them high-profile sporting events with lightning quick turnaround times.

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–Chris Runnells, Owner and President, Innovative Show Design, Orlando, FL

"We realized that if we could get through Mansion Poker Dome Challenge, then there was pretty much nothing we couldn't do—so we started taking on more and more aggressive projects," recounts Runnells. He is the owner and president of ISD, with over 20 years experience in the entertainment industry. Runnells, together with Garrone (lighting designer), Dowling (project manager), and Mitchell (graphic supervisor) continue to take on bigger and bigger challenges.

The team has fun. Since they tend to spend a lot of time together, they have a whole list of nicknames for each other. "If you can't have fun during the day then it's not worth doing," quips Garrone. And their chemistry creates scenic magic. Runnells attributes it to both internal and external factors. "We are influenced by the people around us and the projects that come our way. I truly believe that our core group inspires and influences each other. We consistently drive each other to produce a better product for each and every project."

A good run in the poker world

The team estimates that they've seen thousands of hands played in poker, due to their experience in putting together poker shows for television. Just don't ask them to play. As Garrone notes, "When you spend a month in Vegas the last thing you want to do is sit down at a table and lose your money."

Over a period of about three years, ISD has done set work for more than 15 high-stakes shows, including Poker After Dark, High Stakes Poker, World Series of Poker Europe, and The Aussie Millions, among others. They count The Doubles Poker Championship in Las Vegas as one of their most innovative projects because they conceived it to be completely different from any other existing poker show. They strove for a high-tech, futuristic, modern game show feel. The team started designing at the end of March 2010 and the show was shot in the middle of May. The short timeline was not the only challenge. At the last minute, the venue was changed from the Aria Resort and Casino in Las Vegas to the Golden Nugget Casino, requiring set alterations to accommodate a ceiling that was six feet lower in height. With two weeks until show time, the team used the software to quickly change the design, and the show went on—on time.

Poker After Dark set.
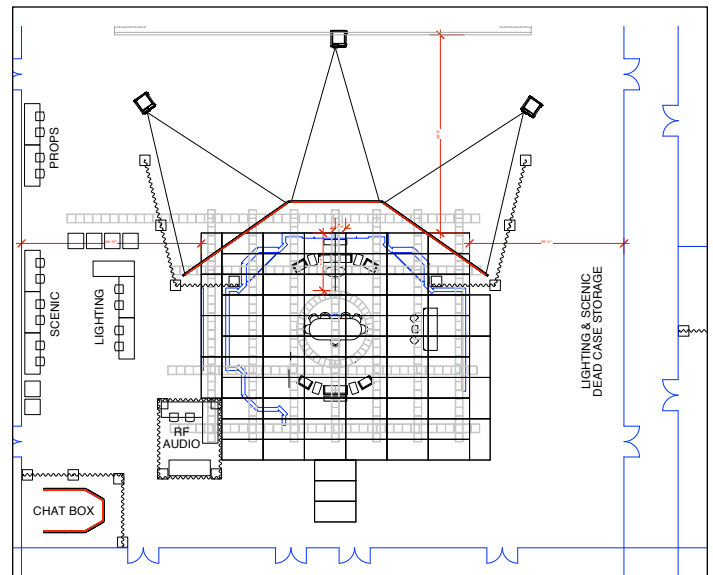
Site ground plan for Poker After Dark.
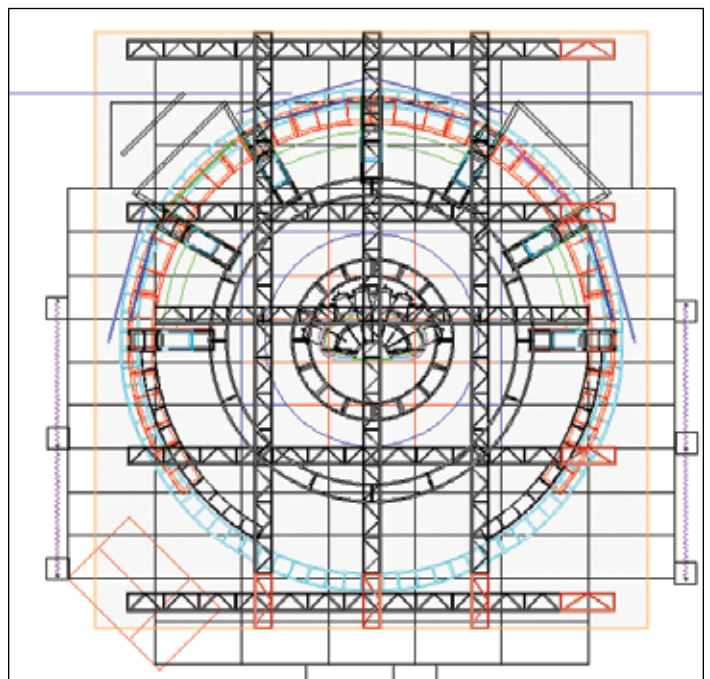

High Stakes Poker set.

Circular set for The Doubles Poker Championship.

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Garrone explains that with traditional poker shows, such as Poker After Dark and High Stakes Poker, they focus on the poker room feel, which entails creating the look of an actual room in a casino—complete with wallpapered walls, sconces, windows, and real doors. Since Game Show Network was carrying the Doubles Poker Championship, the team got creative. They wanted the set to pop as people were channel surfing. "It was an entirely new concept for the poker community," he says. "When we had the opportunity for a new theme we wanted to break away from tradition and be a little more eye-catching….the biggest thing we wanted was for it to be a set, not a room. That opened up the door so we could play with more of the metals, the materials that would be accepting to light. We could create a more dramatic feel."

Floor plan for the Doubles Poker Championship.

Runnells adds, "We wanted it to be something that the casual channel surfer who doesn't watch poker would look at and say, 'What's that? It looks kind of cool.'" With the groundbreaking set, the team also designed an innovative poker table. Not only did it feature hole card cameras, but it also placed the players on one side so they could open up the camera lanes for the cameras. With Vectorworks visualization tools, ISD was able to show producers exactly what the cameras would shoot from the new angles.

For the game show look, they used the Duplicate Array command to easily design the set around a circle. And, with accurate material lists generated by the software—for lighting fixtures, rigging motors, and truss for light plots—they saved time and kept costs under control and within the tight budget.

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Garrone says that Vectorworks software becomes very handy when there is a limited build time because it allows them to provide their scenic shop with detailed drawings so no questions go unanswered. Additionally, with the change of venue they were able to quickly import new backgrounds, drop in the set design, and adjust for a lower ceiling—all within a couple of hours.

The end result? "Everybody loved it. The biggest compliment to us and to the producers was the actual poker players on camera that were saying how much they enjoyed being here and playing that game on the set. When world famous poker player Phil Ivey says 'I really enjoyed this and I'm coming back,' that speaks for itself," says Garrone.

Texturing applied to the Doubles Poker Championship set.

Doubles Poker Championship scenic lighting application.

Making it real

Runnells and his team rely on design software to ensure their measurements reflect the actual space they are working with. Garrone says, "We use Vectorworks ten hours a day. The program opens up when we turn our computers on. We handle just about anything—from switching drawings around into different venues to relighting something because of a new constraint to doing construction drawings. It's our livelihood here." As Runnells notes, "We don't have the luxury of being wrong. You're only as good as your last show."

Sometimes the client provides ISD with an electronic drawing of the venue, but if not, ISD does a site survey, lasering out the room. Then they create a 3D model in the Vectorworks Spotlight program. As always, they're looking for potential problems. Once, they identified a sconce that stood too far out and impeded the set. "That's how intricate some of this stuff is and how important the survey measurements are," says Garrone. And Runnells adds, "It's literally down to fractions of an inch to determine whether it's a go or no go. You can't be off. If one thing doesn't fit then it's a domino effect."

The team is always looking for timesaving tools. "The Curtain tool alone is huge for us—because we can draw a line and see all that drapery fullness appear. We use it all the time, especially for pipe and drape. If we are in a large facility without rooms, we build rooms for each area, especially for secure spaces. We always put up drape to block site lines, hide equipment, build rooms, and dress up certain areas that VIPs or clients can potentially see," says Garrone. "And, the Truss tool lets you mark the centers between lights on the pipes. The hanging crew knows where the light goes because the truss on the paper looks identical to that truss that you are standing in front of— and that saves hours of time at load-in."

Pirate ship in the Super Bowl XLIII crowd.

The NFL comes calling

In September of 2008 Runnells got a call from the Director of Sports Operations of the National Football League (NFL) inviting him down to do a site survey of the Tampa Bay Buccaneers home turf, Raymond James Stadium. Runnells and his team had done several shows with NBC Sports over the years and had built strong relationships with the people there. At a meeting with the NFL and NBC teams, they gave him the news—ISD would be designing the NBC pre-game, halftime, and post-game sets for Super Bowl XLIII.

It has been ISD's most challenging project to date. The designs were created and finalized within two months. The objective was fourfold: to create a commentary desk for Bob Costas and his Football Night in America team's live broadcasts (which were a record-breaking five hours long), to design the NBC Super Suite red carpet area for Al Roker's broadcasts, to make a duel set called the NFL experience for Keith Olbermann and Top Chef, and to create a special Today Show set for a two-hour pre-game show. With an estimated viewership of 152 million worldwide, this was the second most watched Super Bowl in history.

Runnells and his team were up for any challenge, and the project did not disappoint. Building a set for live broadcasts in an existing, immovable large pirate ship built into the stadium's end zone was just one of many hurdles. To conquer it, the team used accurate as-built drawings to design within the confined space, working around the curves of the ship and the varying elevations, as well as with the plank wooden floor. To figure out how much weight this structure could support, they imported the design from CINEMA 4D into Vectorworks Spotlight and analyzed it there. "Having the Vectorworks tools was a huge benefit," says Mitchell. "We'll often take the computers out on the site and import stuff as we're going. It saves a lot of time and is a great way to keep track of all the information from the start."

The team even designed new sails for the ship to replace the Buccaneers sails that didn't complement the theme of the Super Bowl or the competing teams—the Pittsburgh Steelers and the Arizona Cardinals. They made the redesigned sails functional so they moved with the wind and could be folded up and removed after the event. "It was fun….but incredibly stressful with a lot of things to overcome," Runnells says.

Foresight is the sharpest vision

The firm's philosophy is simple: To provide a service to their clients that exceeds their expectations while looking forward to solve potential problems before they impact their clients' productions. They are continually striving to solve issues on the computer screen before they become issues on the set. For instance, while they were designing the Super Bowl commentary desk, they discovered that the sun was setting behind the commentators' backs, creating a backlighting situation that would silhouette the commentators as they spoke. ISD was able to engineer a canopy over the main desk with a flap that moved to address the backlighting situation. "Setting the sun position with the software was huge for us," Garrone explains, "We gave it the time of day and the location to see what the angle of the sun was going to be. It was right on the money and that was very important for us."

Dowling agrees. "Backlighting literally could have made or broken the show for us because of how everything was situated. If we didn't know how the sun was going to impact the shot, it could have been a disaster once we got on site," he says. "We had to front light the shot heavily, since we didn't have the ability to control the sun, and this was a great solution. That evening, the show went off without a hitch.

> *"The greatest thing about Vectorworks is that when you think something is going to be impossible, you can find a way to do it with the program."*
>
> *—Justin Garrone, Lighting Designer/Associate Artistic Director, Innovative Show Design, Orlando, FL*

They also depended on CAD to make changes on the go. Initially, the event centered on a swashbuckling pirate theme that paid homage to Tampa's history. As the design evolved to something more reflective of Super Bowl tradition, the team made design changes relatively easily. Garrone says, "On our end it's simple. If we had a column, for example, we created it as a symbol. So instead of having to change all five columns, we could edit that one symbol; then Vectorworks instantly updated all the rest. Instead of having to go and copy and send it over, you edit it once and it's there. That's a great time saver." Additionally, the majority of vendors on their projects also use Vectorworks Spotlight software. "This makes it really nice because when dealing with construction drawings and lighting designs it's very nice to be able to send something over without having to convert it," says Dowling.

Runnells recently won a technical Sports Emmy Award for Mansion Poker Dome Challenge, and the ISD team is travelling constantly to keep up with the demand for their work. While you won't find them at the poker table, they're certainly playing a great hand in the scenic and lighting business. That's the biggest win of all.
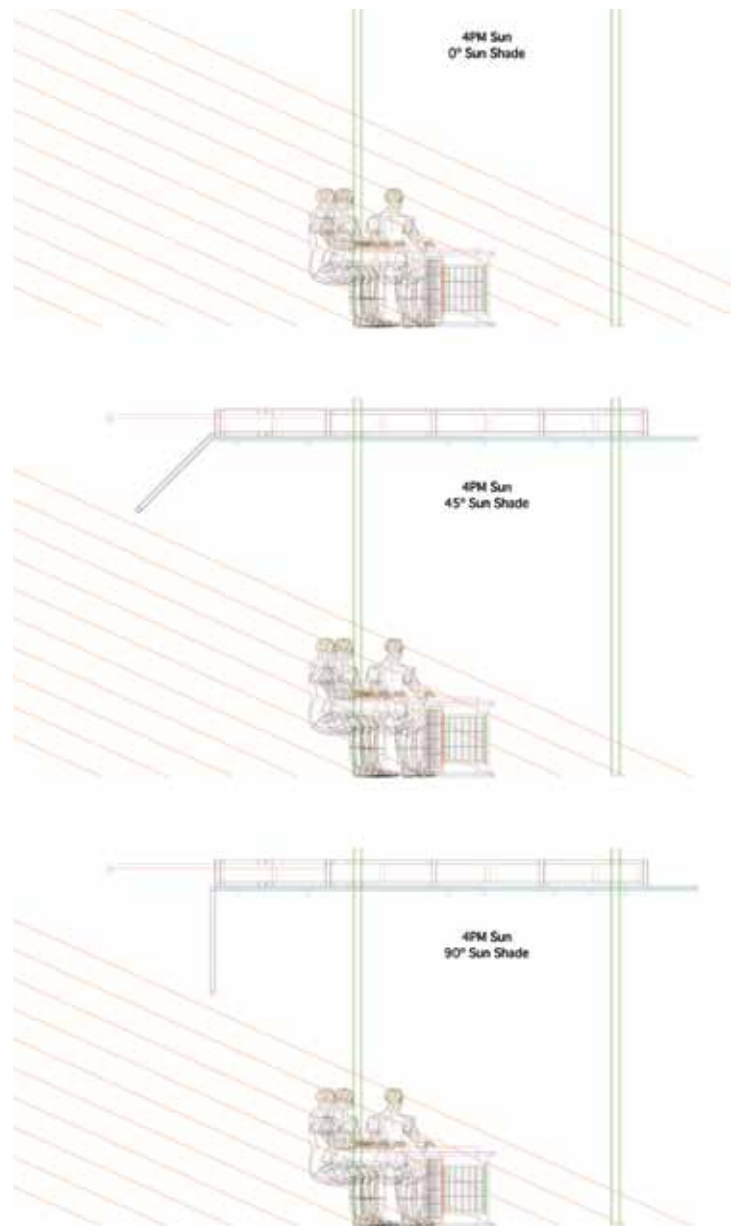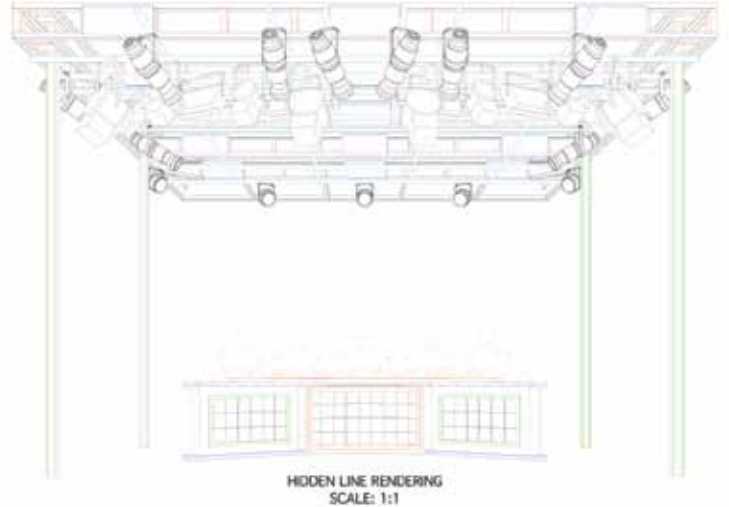
Backlighting challenges addressed through sun calculations.

The Innovative Show Design team at the Super Bowl XLIII commentary desk.

HIDDEN LINE RENDERING
SCALE: 1:1

Front view of the Super Bowl XLIII commentary desk design.

Red carpet area at Super Bowl XLIII.