



Resolution Studios

PRODUCT

Planar Venue Pro VX Series

LOCATION

Chicago, Illinois

INDUSTRY

Media & Entertainment

APPLICATION

Virtual Production Stage

PARTNERS

Miller Creative
Prysm Studios
Mark James, DP

Resolution Studios Employs Tailored Virtual Production Approach with Planar LED Displays

Resolution Productions Group owns and operates Resolution Studios in Chicago's Near West Side, an 86,000-square-foot production complex featuring four premier stages and other amenities. Approximately 70 percent of the studio's business centers on TV commercial work with the rest dedicated to feature films and episodic projects. The studio's approach to virtual production is to work with strategic partners such as Miller Creative and Prysm Studios to create customized LED video wall backdrops. To support this flexibility, the studio utilizes 400 Planar® Venue™ Pro VX Series indoor LED video wall displays with a 1.9mm pixel pitch (VPI-VX 1.9).

Todd Freese, senior vice president and chief technology officer with Resolution Productions Group, has a time-tested philosophy for operating a successful VP studio: LED volume layouts should be designed on a shoot-to-shoot basis.

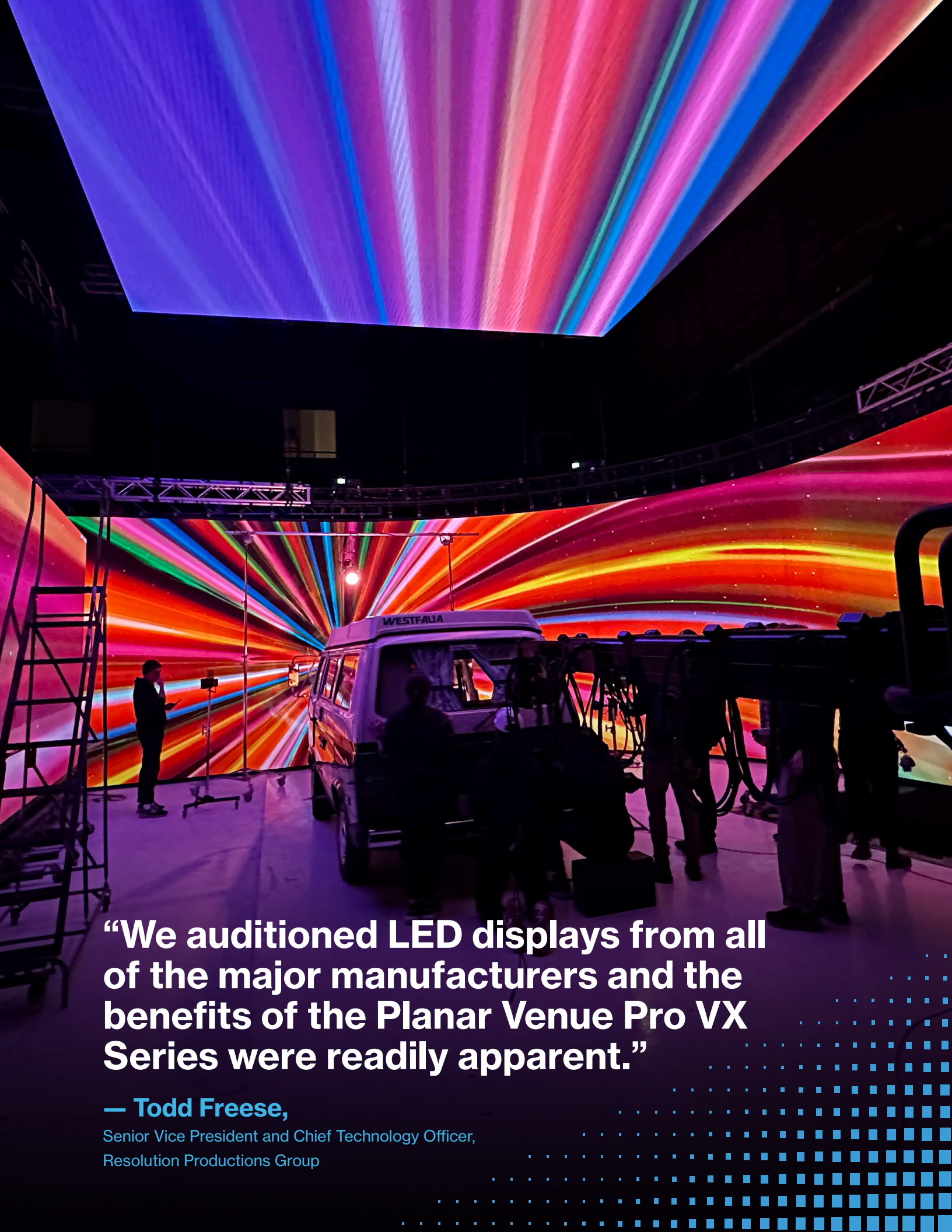
"We are very adamant that a VP studio should not have permanently installed LED," Freese said. "I don't ever want to have the conversation of trying to convince a director to shoehorn their creative into a permanent installation that may not be right."



Designed for the unique demands of temporary LED video wall setups, the Planar Venue Pro VX Series features magnetically attachable cabinets and a quick-lock system for securing cabinets together more efficiently. “Since we frequently reconfigure the physical design of the LED video walls, we pay close attention to the product details—such as the way tiles interlock or how the video wall is ground-supported,” Freese said. “In our testing of other products, we found that many had good image quality, but the mechanics of setting up were just too cumbersome.”

When fully assembled, the studio’s complete supply of Planar Venue Pro VX Series LED displays forms a curved, 80-foot-wide by 14-foot-high LED video wall. However, it’s not uncommon for the LED video wall to be set up at 60 feet wide and 20 feet tall or broken up into multiple formations. “It’s constantly changing,” Freese said. “We definitely have common configurations that we use over and over, but certain shoots require specific layouts. For instance, the way we will set up an LED video wall for a car process shot is completely different than what we would do for a narrative.”

With the deployment versatility of the Planar Venue Pro VX Series, Resolution Studios can also develop tailored strategies for best utilizing the LED displays across a shoot, optimizing production schedules. An example includes an episodic series primarily shot in the studio’s LED volume. “Near the end of the production, we will shoot up to 9 virtual locations a day by building a curved LED video wall on one side of our main studio and a flat LED video wall on the other,” Freese explained. “As we shoot on one video wall, a crew will prepare the other. Then, we swing our camera around and do it vice versa. It’s a very efficient way to shoot several locations in a really short amount of time.”



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— Todd Freese,

Senior Vice President and Chief Technology Officer,
Resolution Productions Group

Essential Features

The mechanical properties of the Planar Venue Pro VX Series were not the only driving factor for its selection. Resolution's investment was also based on visual performance for meeting the on-camera demands of VP and extended reality.

"We auditioned LED displays from all of the major manufacturers and the benefits of the Planar Venue Pro VX Series were readily apparent," Freese said. "And we really liked what Planar was doing in VP, because it seems like a lot of LED display products are not designed for this use. Instead, it's designed for ballrooms or trade shows and gets repurposed."

According to Freese, the Planar Venue Pro VX Series was the leader in terms of color imagery, which he characterized as the single most important element. Second, Freese emphasized the off-axis image quality. "The Planar displays were astoundingly better in this area than any other option—it wasn't even close," he said. "At 45 degrees or at a very sharp angle, like 110 degrees, the displays maintained their desired performance. With a lot of other products, the video wall became sort of unusable at 40 to 60 degrees."

Another factor included reflectivity. "As curved LED video walls get larger and larger, it can create problems with light pollution—the LED display becomes a giant reflective surface," Freese said. "However, with the Planar Venue Pro VX Series, we didn't have to deal with that." With a unique mask and high contrast ratios, Planar LED video walls help to prevent reflections in virtual production applications.



The Benefit of a Partner

Planar's large U.S. presence also played a significant role in Resolution's decision to invest in the Planar Venue Pro VX Series. "Most LED displays are manufactured internationally and many have very few U.S.-based employees," Freese said. "If we ever have a question that needs to be addressed, I can get somebody from Planar on the phone in five minutes. That is not the case with a lot of the other manufacturers. Coming out of the pandemic, we made a large investment in Planar and the support they provide is very important. Planar has the right attitude of being a partner rather than a vendor."

About the Planar Venue Pro VX Series

Planar Venue Pro VX Series indoor LED video wall displays feature exceptional visual properties for in-camera virtual production and extended reality, and mechanical features to suit temporary applications and fixed installations. The high-performing scan and high refresh rates of Planar Venue Pro VX Series displays reduces in-camera artifacts, while high brightness and wide frame rate compatibility enable slow motion filming and multiple ICVFX camera frustums. Displays are designed to show a larger percentage of the visible color spectrum, rendering on-screen content with the hues and shades creators intended, enabling a more genuine viewing experience. With magnetic points for briefly holding LED displays in place, a single installer can secure the cabinet and finalize cabling. Handles, locking pins and an embedded quick-lock system also make the assembly easy and more efficient.

