



## 35North Studios

### Highlights

#### Location

Clear Lake, Iowa

#### Industry

Film Production

#### Application

Virtual Production Stage

#### Partners

Planar

Epic Games

ARRI

Brompton Technology

## 35North Studios Selects OptiTrack for New Virtual Production Stage

Founded in 2020, 35North Studios is a state-of-the-art production studio. Their full-service approach helps filmmakers and businesses plan, shoot, edit, score, and finalize projects, all from one well-equipped and sophisticated location. Situated in Clear Lake, Iowa, the studio offers creators a peaceful space to focus on the craft and enjoy the process – a true creative refuge.

At its 12-acre campus, 35North Studios operates out of a 225,000-square-foot-facility that includes soundstages and editing suites, in addition to a recording studio, equipment rental house and production office space. With an eye on the trends shaping entertainment and production, 35North Studios' executive leadership began paying close attention during the pandemic lockdowns when virtual production projects started to accelerate. They conducted extensive research and evaluations into virtual production methodologies and the technologies that enable them. Soon after, they committed to building their own virtual production stage.

"It's just ingrained in us to always be looking forward and to stay ahead of the curve with the latest industry tools," said Justin Fairfax, Director of 35North Studios. "We also saw the opportunity to be an early adopter in the Midwest."



35North Studios' virtual production workflow also features an OptiTrack camera tracking system—a 3D optical tracking technology with sub-millimeter accuracy for virtual production stages and other industry applications. The specific OptiTrack system is comprised of 12 Slim<sup>x</sup>13 cameras—a lightweight, high frame-rate capture product that includes a discreet profile and is designed with simplicity and usability in mind. The system also includes CinePuck, a camera tracking tool for virtual production studios that can be seamlessly integrated into any production workflow.

The 35North Studios stage is also equipped with fine pitch LED video walls and ceiling from OptiTrack's sister company, Planar, a leading provider of LED display solutions, and ARRI cinema cameras. Additionally, 35North Studios custom built all of its rendering nodes and computer hardware systems.

## It's All About Flexibility and Stability

35North Studios selected an OptiTrack system after evaluating the different types of motion capture technologies including how each one would support their vision for the new virtual production stage, both immediately and long term. After they initially looked at inside out camera tracking systems, they quickly realized the limitations that type of tracking imposed on their studio. Right away, they eliminated the first option.

"Since we wanted our LED ceiling to be a reflective surface at all times, that automatically ruled out inside out camera tracking," Fairfax said. "If we had to place a bunch of trackers on the ceiling for positional tracking, then that would mean they would be visible in the reflections. We wanted to avoid that."

Because of their need for more creative latitude, their search eventually landed on optical camera tracking and the OptiTrack system. "For us, it's all about flexibility and stability," Fairfax said. "With an OptiTrack system, we are not tied solely to virtual production. For example, if we decide at a later stage to invest in an animated feature that needs motion capture, we can do that."



**"It's such a  
multipurpose tool."**

**Justin Fairfax**  
Director, 35North Studios



The flexibility of OptiTrack proved beneficial when 35North Studios wanted to expand its tracking volume. “We decided to also track our side walls to Unreal, which allows us to avoid having to remap everything every time we move one of those mobile walls,” Fairfax said. “That wouldn’t be possible using different tools.”

The decision to integrate an OptiTrack system was also based on 35North Studios’ set up to use two ARRI cameras in their virtual volume and to be able to track both at once, Fairfax noted. OptiTrack also provided the ability to track props, he added, which they can build into an active tracker and send to Unreal in real-time. “It’s such a multipurpose tool,” Fairfax said.

## Unnoticeable

According to Fairfax, OptiTrack provides several other advantages—the system is user-friendly, the equipment is dependable and the software is easy to learn and understand. But what stands out the most is that the technology is virtually unnoticeable.

“I haven’t had to worry about it once on set,” Fairfax said. “It’s never a thought in my mind. That’s because it’s always doing what it’s supposed to do. In that sense, the system is flawless.”

