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Thunder City Pro Powers Large-Scale Lighting Projects with Obsidian's ONYX Platform

Florida-based production and integration company Thunder City Pro is turning to Obsidian Control Systems' **ONYX** lighting control platform as the backbone of a growing portfolio of complex lighting projects. Known for delivering arena-level lighting systems and executing multifaceted outdoor lighting installations, Thunder City Pro relies on ONYX for its flexibility, performance, and ability to handle high-bandwidth, multi-universe lighting networks.



Case Study: Freedom Factory Holiday Lights Festival

One high-profile example of Thunder City Pro's capabilities is the transformation of YouTuber and motorsports personality Cleetus McFarland's Freedom Factory racetrack into a unique holiday light experience—part of the Bradenton Holiday Lights Festival, which debuted last season.

When McFarland sought to bring a large-scale light experience to his motorsports venue as a way to connect with the local community beyond racing, he tapped Justin Stancil and his team at Thunder City Pro, who delivered a custom lighting network capable of handling the project's complex demands.

A Unique Challenge

Central to the project, which is scheduled to return in 2025, was the ONYX platform, serving as the backbone of a sophisticated lighting network spanning 501 Universes. Guests experienced a high-impact drive-thru light show featuring synchronized displays, including a light tunnel, themed shows,

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dozens of pixel-mapped set pieces, and fully lit grandstands. Towers were lined with pixel lights, complemented by a full array of moving lights.

"It was a unique challenge—creating an arena-style light show on a racetrack," said Stancil. "We had to think differently, designing a system that could manage heavy bandwidth, stay fully synchronized, and function seamlessly outdoors."

ONYX at the Core

At the heart of the setup were three synchronized Obsidian consoles that powered everything from intelligent moving fixtures to over 80,000 LED pixel elements. The system included an **NX4** console for primary control of the intelligent fixtures, and two **ONYX PCs** handling pixel mapping of the LED pixels. In addition, two small USB-powered **NXK** control surfaces on each PC gave Stancil the ability to program like a traditional console. The fully custom infrastructure ran on sACN with VLAN segmentation and trunked switches pushing up to 140MB/s of lighting data.



"All of the lighting consoles had to be synchronized with time code," Stancil explains. "They all had their own outputs so essentially that caused us to have to program the show three different times—once for the moving lights (A), once for one group of pixels (B), and once for another group of pixels (C). All that was done in the course of six or seven days."

Multiple <u>NETRON EN4</u> nodes were used on the B and C pixel networks, while eight <u>NETRON</u> <u>EN6 IP</u> nodes provided DMX output to traditional dimmers. This setup enabled DMX control of the track's conventional lighting, allowing for a more traditional look between shows.

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The system allowed the team to deliver four fully synchronized themed shows—magical, rock, country, and pop—each lasting 10–12 minutes and running continuously throughout the night.

Elation Lights

To deliver the visual punch, Thunder City Pro attached trusses to light poles and deployed a lighting package of Elation IP-rated fixtures, along with numerous other lights and LED pixels spread across the site. Fourteen PROTEUS HYBRID MAX provided impactful aerial beams and gobo/animation projections on the track and onto nearby trees, while 14 PROTEUS RAZYOR 760 delivered vibrant effects and eye-candy looks. Six PALADIN PANELs were used for washes and effects.

Stancil emphasized that fixture durability and visual quality were key: "Cleetus wanted something on par with what you'd find in a premium theme park—high-end, lasting quality. He wanted only the best and something that would last the next 5 to 10 years. As the leading brand of the IP world, the Elation fixtures checked every box."





A Hit with Fans

Despite being miles from nearby neighborhoods, the lighting was visible across the area and generated buzz even before the venue opened. "There were people all over social media who could see the lights and were wondering what was going on," Stancil shared. "It really got people hyped up for what was to come." The show drew a live audience and gained further exposure through Cleetus McFarland's YouTube channel, which boasts over 4.4 million subscribers.

Stancil noted that McFarland was highly impressed by the lighting and thrilled with the final result of the project. "After the entire show wrapped," he recalled, "Cleetus told me, Justin, thank you for delivering exactly what you promised.' That meant a great deal to me."

While the Freedom Factory project has been a standout success, earning praise from McFarland and fans alike, Stancil says it's just one of many projects where ONYX is proving indispensable. "We lean into ONYX because it's scalable, reliable, and lets us tackle complex lighting projects. It's become a cornerstone of how we design lighting systems."

After a successful first year, Thunder City Pro has already begun preparations for the 2025 Bradenton Holiday Lights Festival—once again featuring Elation fixtures and powered by the Obsidian ONYX control platform.

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About Obsidian Control Systems

Obsidian Control Systems is an accessible line of advanced yet intuitive lighting control products for professionals. Refined by passion, Obsidian Control Systems combines over 30 years of experience developing professional entertainment lighting control solutions for automated and theatrical lighting fixtures. Obsidian lighting control software and hardware are easy to use and accessible to every level of user, whether a novice programmer or a designer at the highest level. All Obsidian lighting control systems run innovative ONYX lighting control software, a powerful yet easy-to-learn platform for hardware consoles and PC systems. Obsidian Control Systems also offers a complete line of NETRON data distribution products. Obsidian products are distributed exclusively by Elation worldwide and are available in various sizes to accommodate any scale and budget. Visit the Obsidian Control Systems website at www.obsidiancontrol.com to learn more.

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