HIGHLIGHTS

Product Type
Clarity Matrix Video Wall

Location
Seattle, WA

Industry
Attractions

Application
Education & Entertainment

Interactive Clarity Matrix Video Wall Draws Visitors into the History and Future of Iconic Seattle Landmark

The Space Needle is a landmark of the Pacific Northwest and an icon of Seattle. It was built for the 1962 World's Fair, which drew over 10 million visitors. Since then over 1 million guests annually have ridden its elevators up 520 feet to take in vistas of the city, Puget Sound, the Cascade Range and Olympic Mountains.

In 2014, the Space Needle moved ahead on a plan to create a 21st century experience for Space Needle visitors, to showcase the heritage and evolution of the iconic spire, and to enhance visitors' connection to it. A key step in this plan was to build on the use of digital technology throughout the needle by implementing a digital video wall on the observation deck that would attract more visitors, immerse them in the needle's history and give them a means to become part of its future.

> "Planar's Clarity Matrix meets a variety of needs for us in a very cost-effective way."
>
> **- Erica Rintoul,**
> Director of Digital Experiences
> Space Needle LLC

To this end, the team, along with Planar and partners in various technology disciplines, designed, installed and began creating a content strategy for a 135 square foot video wall, known as SkyPad™, comprised of 15 Clarity™ Matrix LCD Video Wall displays in a three-high by five-wide (3x5) configuration. Planar provided the Clarity Matrix video wall displays; the interactive design and development firm, Belle & Wissell, Co., provided content assembly and management.

"Planar's Clarity Matrix is a good video wall solution for so many reasons" says Erica Rintoul, Director of Digital Experiences, Space Needle LLC. "Not only are they big and bright, they are also durable and flexible and meet a variety of our needs in a cost-effective way."

EasyAxis Mounting System delivers important benefits

With the selection of Clarity Matrix having been made, the installation process began, taking important advantage of Planar's EasyAxis™ Mounting System, which allowed for easy mounting and aligning of the 15 55-inch Clarity Matrix MX55HDS LCD displays. EasyAxis is a one-of-a-kind mounting system, consisting of a lightweight steel frame with cable routing channels and a six-way cam system for bringing all displays in the video wall into perfect alignment with each other and achieving a perfectly flat, uniform surface. Further, EasyAxis allows any display to be tilted out at the bottom and then removed if service or replacement is necessary. Its design is such that this can be accomplished without the entire video wall having to be shut down or dismantled, as is the case with other video walls.

Clarity Matrix and EasyAxis combine effectively in other ways as well. For example, they allow for the remote location of power supplies, controllers and other components. This keeps principal heat-inducing elements away from the video wall, which preserves its 50,000-hour backlight life, eliminates the need for additional cooling at the video wall, and creates a surface that is much more inviting to the touch than other video walls. Also, the slim profile of Clarity Matrix (sub four inch mounted depth) and light weight of each display are significant. By remotely distributing electronics, weight, in comparison to other displays, is reduced by 40 to 60 percent. That means it takes fewer people for an install and results in a faster build.

Further, the video wall was specified with Planar's ERO™ (Extended Ruggedness and Optics™) technology option. This is a layer of protective glass that covers each Clarity Matrix display. ERO is a critical feature that adds durability to the video wall without interfering with the touch experience.

Content immerses and engages visitors

The content strategy collaboratively devised by Belle & Wissell and Space Needle capitalized on the flexibility of Clarity Matrix; "specifically the ability to place content wherever we want it on the video wall," says Erica Rintoul. Their strategy allowed for a center section of the video wall (3x3) to depict images of the Space Needle from the time it was constructed up through and including present day. Visitors can use the displays' IR touch capability to select images of interest and then explore them in greater detail with the touch of a finger. "We've also made it possible for a guest to upload an image to the Space Needle website and have it added to the content stream," Rintoul adds.

> "The remote distribution of electronics reduces weight significantly, resulting in a faster installation with fewer people needed."
>
> **- Erica Rintoul,**
> Director of Digital Experiences
> Space Needle LLC

On either end of the SkyPad are one-by-three (1x3) display sections which comprise a digital guest book. "This is especially popular because guests can 'pin' themselves to this section and their names, home states and/or countries will then appear on a digital globe in each display. More than 50,000 people have added their names to the guest book since we launched SkyPad in July 2014, and more are being added every day," Rintoul adds.

Fundamental to the success of this content strategy is the image quality of the Clarity Matrix. This owes to factors such as the ultra-thin gaps between displays (5.5 mm), display brightness (800 nits), 3500:1 contrast ratio, and resolution (1920x1080). "The image quality is beautiful even when standing close and interacting with the wall. We've can also broadcast HDTV on it and it looks amazing," Rintoul concludes.