

CASE STUDY

Japan Pavilion - Expo Dubai 2020: The Concept

Japanese culture is influenced by external ideas that are reinterpreted to create something unique. To show how the exchange of ideas can inspire a better future, the Japan Pavilion at Expo 2020 Dubai (October 1, 2021 – March 31, 2022) drew upon the country's relationship with technology. For example, smartphones were issued to visitors to track their interest in each exhibit—such as the “realm of mist” powered by Panasonic projection and Silky Fine Mist technology—and the information used to create a unique finale specific to that day and time.

Location: Expo Dubai 2020

Product(s) supplied:

PT-RZ21K

PT-RCQ10

PT-VMZ60

ET-D3LEU100

ET-D3LEF70

ET-DLE020

ET-DLE060

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Exhibition Producer of Japan Pavilion for DENTSU LIVE INC.



"We gave a lot of thought to how the Expo 2020 Dubai theme 'Connecting Minds, Creating the Future' could be incorporated into the Japan Pavilion," explains Isao Ando, Deputy Commissioner General of Japan Pavilion, Expo 2020 Dubai. "The theme we arrived at was 'Where Ideas Meet'. New ideas are born from problems that need solving. Novel ideas empower solutions by combining perspectives and ways of thinking."

“We created six scenes to allow visitors to encounter ideas. In Scene 1, those unfamiliar with Japan got a sense of the country, and in Scenes 2 and 3, visitors unraveled the nation's history and explored the ideas that have traveled here. Scene 4 is the turning point where we address problems faced not only in Japan, but also the world.

About eight [PT-RCQ10](#) projectors with [ET-DLE020](#) ultra-short-throw zoom lenses, protected by custom anti-mist boxes, were used to great effect in Scene 4.



“For the Scene 5 finale, we show what action could solve these problems through human interaction. We wanted visitors to leave with the message that exchanging ideas is necessary for creating a wonderful future society.”

Takayuki Nagatomo, Exhibition Producer of Japan Pavilion for DENTSU LIVE INC., the firm responsible for the pavilion's design, agrees.



“We focused on the values and interests of each visitor, and how combining them can create something new. We used a number of different video technologies to create a dramatic effect for audiences to enjoy. The pavilion also anticipates the next World Expo to be held in Osaka in 2025, and we devised a number of production techniques to highlight this.”

Why Choose Panasonic?

A Proven Track Record

Visitors were treated to spectacular video art projected onto curtain screens, through fine mist, and along walls and floor; a 360° wraparound theater with a large spherical centerpiece completely covered in vivid projections; and an “infinity room” that combined mirrors, lighting, and digital projection. To deliver this memorable experience, TANSEISHA Co., Ltd., the company responsible for equipment acquisition and installation, chose a mix of Panasonic 3-Chip DLP™ and 1-Chip DLP™ projectors, as well as the [PT-VMZ60](#) LCD projector for floor projection in the infinity room.



TANSEISHA's Isami Kobayashi, Exhibition Consortium Staging Systems Manager, said that reliability was critical when it came to selecting projectors for the Japan Pavilion. “The expo was held over six months,” he said, “But a lot of adjustment was necessary before that, so the projectors were actually in operation for more than seven months.” According to Mr. Kobayashi, projector selection was subject to three main criteria. “The first was whether or not the product can be used stably over a long period of time. The second is durability under adverse environmental conditions. And third, whether the brand's maintenance system is available on a global scale.”

According to Mr. Nagatomo, trust was also important. “We have worked with Panasonic for a long time, and the company has a proven track record of delivering products for major international events, including past expositions. As for performance, it goes without saying that the quality of visual expression is overwhelmingly high.”

Vivid and Accurate Color Performance

Mr. Kobayashi also stressed that color reproduction was of critical importance when it came to choosing a projector. "Everyone agreed the red reproduction of the [PT-RCQ10](#) was the best. Red makes color more vivid overall, and red was the most important color in both Scene 1 and Scene 5. I am very happy we chose the [RCQ10](#), which has a wonderful red!"

By combining mirrors, lighting, set pieces, and Panasonic projection, designers created an otherworldly atmosphere in the "infinity room".



Flexible Lenses Simplify Installation

Compatibility with Panasonic's game-changing [ET-DLE020](#) Ultra-Short-Throw Zoom Lens and [ET-D3LEF70](#) [Fisheye Lens](#) also influenced the choice of projector.

Two ET-D3LEF70 fisheye lenses were used to completely cover a large spherical screen.

“The projectors and screen needed to be quite close to each other,” explains TANSEISHA's Yusuke Yamanaka, Exhibition Consortium Project Manager. “The biggest advantage of the [ET-DLE020](#) is not only that it enables projection at close range, but also because its zoom and lens-shift simplify implementation and blending. It's really quite superior. In fact, an exhibition design like this was only possible because of the discussions we had with Panasonic engineers. I think these lenses made the biggest contribution to the success of the project.”

Despite not having previous experience with the [ET-D3LEF70 Fisheye Lens](#), which was used with Panasonic's [PT-RZ21K](#) to project images onto a large sphere at the center of the room, Mr. Yamanaka said the lens's flexibility, wide coverage, and blending capabilities greatly simplified image adjustment.

“Using just two projectors and fisheye lenses, we were able to confirm that the screen was completely covered from the guests' perspective. In this sense, the lens was indispensable. For Expo 2020 Dubai, and for other exhibitions, the core audio-visual technique is blending images in large spaces. Installation flexibility and blending functions are really important.

“But for us installers, most important is the flexibility of the system and its ability to withstand adverse conditions.”

Silky Fine Mist Combines with Projection to Create an Unforgettable Experience

To fully engulf visitors' senses, designers combined digital and analog effects for a greater sense of realism.

“We decided on a mist solution provided by Panasonic called Silky Fine Mist,” said Mr. Nagatomo. “The challenge was to create a fantastic world view that visitors had never seen before. We were able to create a one-of-a-kind experience that maximized performance under unusual humidity and temperature conditions. I think that was a very good point.”

As TANSEISHA's Yuji Hasegawa, Exhibition Consortium Site Manager, explains: “We had to create a box to resist condensation. The boxes prevented the projectors from malfunctioning.”

Overcoming the challenge of humidity and condensation paid off with the pavilion's unique atmosphere attracting an enthusiastic response from visitors.

Visitors' Voice: Towards Expo 2025 Osaka

“I'm happy to hear so many visitors to the Japan Pavilion tell me it was the most interesting exhibition, and that they're looking forward to the next World Expo in Osaka,” Mr. Nagatomo says of the public reception to the exhibition. “I've seen words like 'wonderful' and 'amazing' used to describe the pavilion, and about the fantastic perspective created by the production, many times. We thank everyone involved in making this production a reality.”

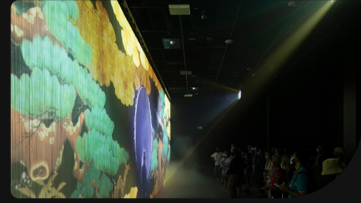
Bureau International des Expositions (BIE) awarded Japan Pavilion the Gold Award for Exhibition Design in Self-built Pavilions Category A (larger than 2,500 m2).



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Curtain screen and mist added depth and sense of dimensionality to the digital content without sacrificing RCQ10's amazing color

