Panasonic CONNECT

CASE STUDY

Science Centre Singapore

Client: Science Centre Singapore
Location: Singapore

Product(s) supplied: PT-RZ670

Challenge

Solution

Science Centre Singapore

Science Centre Singapore unveiled its latest exhibition, called the E-mmersive Experiential Environments (E3), which combines different virtual reality technologies to create a fully immersive experience for visitors.

Panasonic is honoured to be one of the technology partners of this breathtaking exhibition, which is by far the largest installation using Panasonic's laser light source projectors in the ASEAN region.

Why Choose Panasonic?

- Panasonic's achievements in the past for projection mapping.
- Strong support from Panasonic's sales and engineering personnel.
- Panasonic's 6,500 lm WUXGA laser projector, the PT-RZ670, can maintain excellent picture quality for 20,000 hours* without exchanging the lamp and filters. (Maintenance-free)
- The Panasonic PT-RZ670 can be used in portrait installation with the short throw zoom lens ET-DLE085, which gives customers flexibility in installation.

** At this time the brightness would have decreased to approximately 1/2 of its original level. After approximately 20,000 hours, cleaning needs to be performed (by the vendor which you purchased from). The light source's lifetime may be shortened due to environmental conditions.*

A leading regional institution promoting science and technology

Science Centre Singapore is a leading non-formal educational institution and promotes interesting and creative learning in science and technology. They pride themselves on making science an inspiring and exciting experience for people of all ages.

Their unique exhibitions, shows, and programmes cover a wide range of topics related to science, technology and mathematics and are aimed at complementing schools' formal science education as well as enriching outreach activities for everyone.

"Transporting" visitors into new virtual realms

Called the E-mmersive Experiential Environments (E3) exhibition, it seamlessly blends and combines different virtual reality technologies to create a fully immersive experience. It aims to encourage exploration of undiscovered frontiers by "transporting" visitors to environments not easily accessible by the average Singaporean. The Science Centre demanded laser projectors that can be used for portrait projection and that minimize maintenance for as long a time as possible.

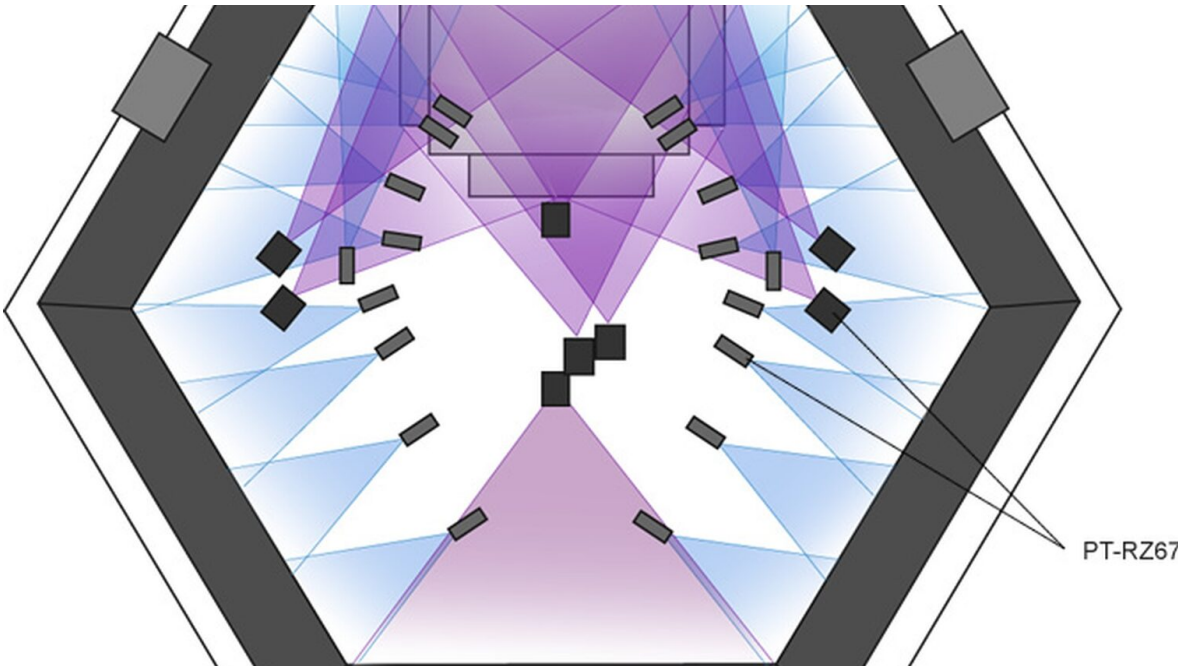
The overall E3 exhibition area is hexagonal, with a projection height of 7.5 m. Due to the tight space around the cube mountain structure (Deep Space), Science Centre Singapore needed projectors that are flexible enough to be orientated and at the same time be able to project high-definition resolution. For content such as virtual oceans, high image quality is important, as well as the reliability of the projectors since the exhibition is expected to last for at least 5 years. Since the maintenance of the lamp and filter of the projectors at high locations is troublesome, a laser projector was highly recommended. As a result of considering these requirements, Panasonic's PT-RZ670 projectors with ET-DLE085 short-throw zoom lenses were selected.

Projection mapping for the exhibition required a projection system with a combination of twenty-nine PT-RZ670 laser light source 1-Chip DLP™ projectors and ET-DLE085 short-throw zoom lenses. The installation uses a lot of overlapping in order to achieve a 70 m long projection canvas at a height of 7.5 m. A total of eighteen PT-RZ670 projectors were used for portrait projection to create a digital wall canvas with an optimised vertical resolution of 1,920 pixels; this provided an up-close viewing experience of just 2.5 mm per pixel.

Installation Image

A total of twenty-nine PT-RZ670 projectors were used.
(Including eighteen units in portrait orientation)

** This image does not show the actual number of projectors used.*



The PT-RZ670 projectors also provide high picture quality on the cube mountain projection mapping. The PT-RZ670 is Panasonic's first full laser, 1-Chip DLP™ projector, with a brightness of 6,500 lumens. It boasts 20,000 hours* of maintenance-free operation and long-lasting picture quality even at a portrait angle, which fits the requirement of E3.

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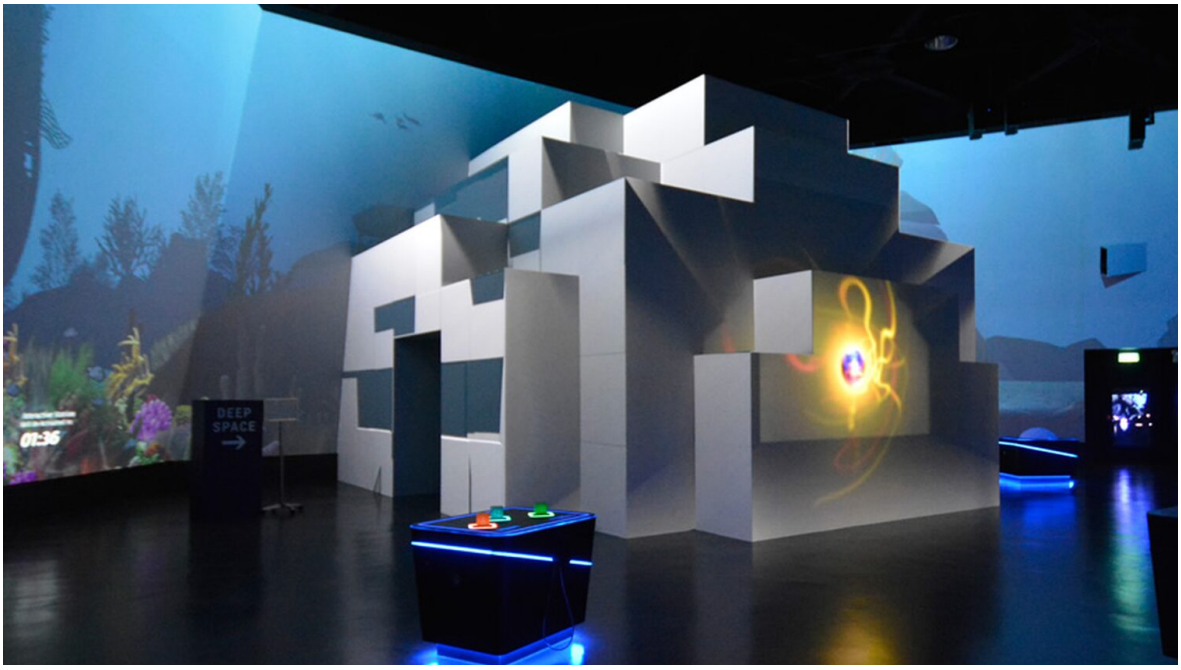

An immersive experience inspires visitors to explore and discover new frontiers

Soaring over skylines of various cities or plunging into the depths of the oceans can all be done virtually. The education market is the main target audience of Science Centre Singapore and such immersive learning environments will serve as a bridge between classroom learning and real-life experience, as well as stimulate scientific thinking and curious minds of all ages.

Panasonic is providing the very latest visual solutions for upcoming events and exhibitions.

Panasonic has done successful, big scale projection mapping projects in Singapore, such as Singapore Night Festival 2014 and i Light Marina Bay 2014.

This year, Panasonic projectors have been selected to support several ongoing projects. Those events will be introduced in detail.