

Future Developments

Aiming to be a museum that people around the world can enjoy

Zukan Museum Ginza places great importance on opening up that door of curiosity and desire to learn that comes from opening up an illustrated encyclopedia and reading through it. While “learning” is the major theme of the museum, we have not tried to “teach.” Rather, we hope that visitors will naturally come across the various creatures’ movements and unique characteristics by themselves and go “Ah! That’s how it works!” Toward that end, there are many hints scattered around the place. Because we feel that this sense of curiosity and discovery is universal, we hope more and more people will come and experience it, and we hope that it will spread to various other countries around the world. (Takayuki Kitai, Creative Director, Zukan Museum Ginza)

In this issue, the following were kind enough to allow us to interview them:



Takayuki Kitai  
Senior Producer/Director  
AID-DCC Inc.



Hikaru Maeda  
Producer, Driver  
AID-DCC Inc.



Keisaku Ibuki  
Planner/Technical Producer  
Drill Inc.

\*Affiliation at time of delivery.

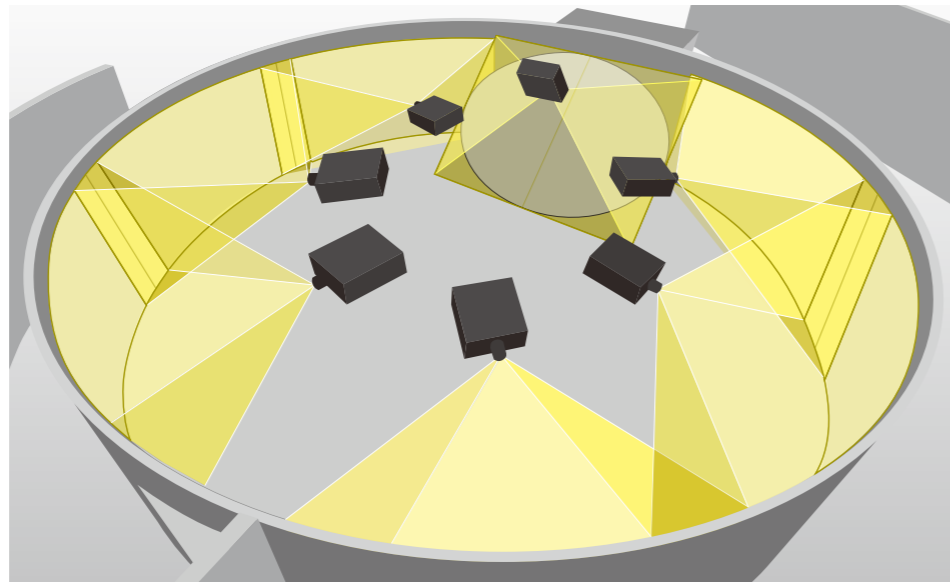
Projections in the Goal Area

►For projecting on a wall

1-Chip DLP® Laser Projector  
**PT-RZ870JL** (×6 Units)  
Zoom Lens (Ultra-Short-Throw Lens)  
**ET-DLE020** (×6 Units)

►For projecting on a disk

1-Chip DLP® Laser Projector  
**PT-RCQ10JL** (×1 Unit)  
Zoom Lens (Ultra-Short-Throw Lens)  
**ET-DLE020** (×1 Unit)



Equipment introduced



1-Chip DLP® Laser Projector  
**PT-RZ870JL** (×21 Units)



1-Chip DLP® Laser Projector  
**PT-RZ690JL** (×19 Units)



1-Chip DLP® Laser Projector  
**PT-RCQ10JL** (×1 Unit)



Zoom Lens (Ultra-Short-Throw Lens)  
**ET-DLE020** (×28 Units)



Fixed-Focus Lens (Ultra-Short-Throw Lens)  
**ET-DLE035** (×3 Units)



Zoom Lens  
**ET-DLE060** (×7 Units)



Zoom Lens  
**ET-DLE250** (×1 Unit)



Zoom Lens (Standard Lens)  
**ET-DLE150** (×2 Units)



Space Player  
**NTN91000B** (×9 Units)

Discover the world of illustrated encyclopedias in an immersive and interactive museum



Zukan Museum Ginza (Encyclopedia Museum)

Installed system: Projection Mapping

Date of installation: July 2021  
Location: Tokyo

Challenge:

• To achieve projections that can throw visitors into the world of the great outdoors where they can encounter a vast array of natural life

Solutions:

• The DLP® projectors create vivid, crisp color projections, while the Ultra-Short-Throw Lenses allow for greater flexibility in making the most of the space to create the illustrated worlds

“

Without the help of the Ultra-Short-Throw Lenses from Panasonic, we wouldn't have been able to achieve our current high-density exhibition space with a vast array of natural life. Panasonic has the shortest projection distance and the largest range of lenses.

”

Hikaru Maeda  
(Equipment Selection Director, Zukan Museum Ginza)  
Producer, Driver  
AID-DCC Inc.

\*Affiliation at time of delivery.

Background of System Installation

Grand opening of a hands-on museum based on an illustrated field guide

July 2021 saw the opening of a completely new and original edutainment experience, Zukan Museum Ginza. The museum, which is inspired by Shogakukan's NEO Encyclopedia series, transports visitors to another dimension where they are surrounded by projections of the various creatures that inhabit our world. It is a hands-on museum that allows its visitors to learn by going on a virtual adventure through the pages of one of the NEO Encyclopedia books. The museum features various objects that create the different natural settings, including forests, oceans, and savannas. Creatures with realistic movements are also projected in each area. These animals are projected using 41 Panasonic DLP® projectors.

Reasons for System Installation

The museum concept is encapsulated by the high level of flexibility of installation

The main reason Panasonic was selected in this case was the broadness of our range and the ease of installation of our Ultra-Short-Throw Lenses, which allow for short-distance projection onto a large screen. Mr. Hikaru Maeda of AID-DCC Inc., who was in charge of selecting the devices, along side with HEXAGON JAPAN INC, used in the museum, had this to say: “Our ceilings are low and have pipes running along them, so projectors were an issue. Since we really wanted to create an immersive experience with animals showing up everywhere, we needed an exhibition space with projections much more densely packed than other similar facilities. It was only thanks to the Ultra-Short-Throw Lens from Panasonic that we were able to solve these issues.”

It's not about “turning” but “touring”: experiencing the world of an illustrated encyclopedia with all five senses

Opened on July 16, 2021, on the sixth floor of Tokyu Plaza Ginza, Zukan Museum Ginza (powered by Shogakukan's NEO Encyclopedia) is a revolutionary hands-on museum where—rather than turning the pages of a book—visitors learn using all five senses while touring a world full of various creatures.

- Location: 6F Tokyu Plaza Ginza, 5-2-1 Ginza, Chuo-ku, Tokyo, Japan
- URL <https://zukan-museum.com/>



▲ Zukan Museum Ginza entrance



Effects Achieved by System Installation

Making an interactive video production viable in a way that could only be achieved with projectors

Visitors to Zukan Museum Ginza are handed a device called a "record stone" at the entrance. This device is connected to the projections around the museum, and by pushing a button you can register the various creatures you encounter in the museum. We talked to Mr. Takayuki Kitai, Senior Producer/Director at AID-DCC Inc. and the Creative Director behind Zukan Museum Ginza. "We wanted our museum to allow visitors to walk around as they like, sit down and become immersed in a world of the great outdoors, collect various creatures on the 'record stone,' and generally enjoy their time here however they see fit," says Kitai. "We've put together a museum that makes an interactive video production viable with its visual projections, so every time you turn a corner you'll encounter something new."



◀The first thing you see as you come into the entrance area is a 210-degree image (roughly the whole arc of a human's eyesight) seamlessly produced by five separate PT-RZ870JL 1-Chip DLP® Laser Projectors; this marks the beginning of your journey into the great outdoors

Using a wide range of lens types to install the right projector for each of the various environments

The museum is made up of five "zones," and each zone has objects set up to match its theme. For example, there are pipes to put the visitor in mind of the deep woods, or blocks that resemble rocks in the savanna. The projections seamlessly interact with these items that serve to inspire the imagination. We spoke to Mr. Keisaku Ibuki of Drill Inc., who was in charge of the exhibition space layout. "With these many actual items crammed into the space, selecting the optimal positioning for the projectors was always going to be extremely difficult," says Ibuki. "We at Drill Inc. normally use Panasonic projectors, but the Ultra-Short-Throw Lenses we used this time allowed for a flexible setup even if there are various items set up in a complex fashion. This was a big help in setting up the exhibition layout and Hexagon Japan Inc.— who was in charge of selecting and adjusting the equipment— had their work cut out for them."



▲By pushing a button on the "record stone," you can register the creatures you see—when its body has become lit up, that's your chance!

Deep Forest Zone



▲ The first animal you encounter is the siamang gibbon—this creates a space that makes you feel like you've ventured deep into the woods, and the realistic movements of the gibbons help make the experience even more immersive



◀Passing through the Deep Forest Zone, we come to a fork in the road: Zukan Museum Ginza is set up with no particular viewing route, so that visitors can enjoy getting "lost" in the course of their adventure

Ultra-Short-Throw Lenses that bring the museum visitors closer to the images

Maeda says that Panasonic's Ultra-Short-Throw Lens contributed greatly to visitors feeling like they are up close to the animals displayed. "We've got it so that the animals react to changes in distance between visitors and the screen, such as running away when a person gets too close," he tells us. "With a normal projector and layout, when someone gets too close to the screen their shadow would get in the way of the projected image. But thanks to these Ultra-Short-Throw Lenses, people can get right up close and enjoy the images without their shadows disrupting the immersion. Without the Ultra-Short-Throw Lenses, we wouldn't be able to bring the museum visitors this close to the animals like we envisioned."



▲The ET-DLE035 is a Fixed-Focus Lens with a built-in mirror (an Ultra-Short-Throw Lens), so it can reflect images to the opposite side of the projector direction, significantly shortening the projection distance

◀The museum uses a great many projects, so that visitors just need to walk a little bit before they encounter a different animal: in places where there is not enough room for long-distance projection, that's the chance for the ET-DLE035 Fixed-Focus Lens (Ultra-Short-Throw Lens) to shine



▲By combining the ET-DLE020 Ultra-Short-Throw Lens with the power of projectors in the DLP® lineup to convey images, clear, attractive projection is possible even on curved screens and narrow areas between the "trees"

▲A large moose walks by when you look into the space surrounded by trees: the animals are not recreated in a photorealistic style, but rather like the illustrations in a book

The DLP® projector's power to convey images and multi-blending contribute to the sense of immersion

By utilizing a unique time expression that condenses 24 hours into 24 minutes, visitors can experience the various creatures' activities that change throughout the day. Only DLP®, with its high contrast, and multiple projection units can achieve such a seamless effect. "We wanted to create a crisp picture that would

overwhelm the visitors, so these DLP® projectors were the perfect match for the image Zukan Museum Ginza was going for," says Maeda. "In fact, when I saw the images created by the projector, I actually thought 'This is wonderful!'"

Waterfall Zone/Underwater Zone



▲ Using the PT-RZ690JL 1-Chip DLP® Laser Projector we are able to beautifully recreate the different fluvial fauna of the day and night, with the great egret during the day and the genji-botaru firefly coming out at night



▲At the Underwater Zone, visitors experience life beneath the water's surface: the ET-DLE020 Ultra-Short-Throw Lens means that visitors' shadows don't interfere with the projection; the ceiling also shows a projection of an enormous crocodile swimming overhead



▲By attaching the ET-DLE035 Fixed-Focus Lens (Ultra-Short-Throw Lens) to a projector facing down at the wall, you can project on the ceiling without placing a projector on the floor

Wild Field Zone



▲The Wild Field Zone uses seven PT-RZ690JL 1-Chip DLP® Laser Projectors and five Space Players to project throughout the whole area



▲Evening in the Wild Field Zone: a herd of blue wildebeest can be seen on the move



▲The nighttime scenery in the Wild Field Zone, with its starlit sky, is truly spectacular: the blocks representing rocks change color gradually as time passes

Ant View Zone



▲The Ant View Zone is meant to allow visitors to see the world of bugs and insects through the eyes of an ant, so three PT-RZ870JL 1-Chip DLP® Laser Projectors with ET-DLE020 Zoom Lenses (Ultra-Short-Throw Lenses) facing in three directions and two more facing the floor are used to create an immersive experience surrounded by the world of bugs and insects



◀In addition to the visuals, there are various other effects that contribute to the atmosphere, such as wind blowing from the movement of the bugs and insects, the sounds of their footsteps, and the vibration of the chairs: the free installation of the projectors avoided interference with the devices producing these other effects

Goal Area



▲On the final leg of the journey, a vast panorama is created by using six PT-RZ870JL 1-Chip DLP® Laser Projectors: the use of multiple units allows for seamless merging of the images together, and what's more, in the center of the room is a large disk that uses PT-RC010JL 1-Chip DLP® Laser Projectors to project an image of Mother Earth



▲If you place your "record stone" on one of the terminals set up around the disk, all of the creatures that you have captured on your stone will be set free at once