

Bringing innovation to the selling real estate with VR technology.

Tokyo, Japan



The new town “HARUMI FLAG” that accommodates up to 12,000 residents

“HARUMI FLAG” is a big project that was developed as part of the Harumi 5-Chome West District Category 1 Urban Redevelopment Project in Chuo-ku, Tokyo. The city of Tokyo has started preparing the athletes’ village for the Tokyo Olympic and Paralympic Games on the land owned by the Tokyo metropolitan government in Harumi district and developing a town that will serve as the legacy after the completion of the Olympic and Paralympic Games. A specific builder system was introduced during the development of the buildings that will become the residential and commercial facilities after the Games, and preparations were proceeded towards the realization of a model of an environmentally advanced city by utilizing the funds and development knowhow of 11 private business groups.

Construction for the 21 buildings that will be used as part of the athletes’ village during the Tokyo Olympic and Paralympics Games started in 2017 and was tentatively completed in December 2019. After the Games, partial demolition work and new construction will resume from January 2021, and residents will begin moving into 2,690 condominiums and rental apartments at the beginning of 2023. The two 50-floor towers, which will become the symbol of the area, will be completed in the summer of 2024, and approximately 12,000 people will be living in the total of 23 buildings and 5,632 housing units (4,145 condominiums, 1,487 rental apartments).



One of the issues is not being able to experience the site during the Games.

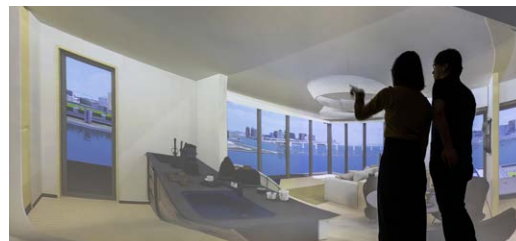
The spectacular views overlooking the Tokyo Bay and Rainbow Bridge that change over time and the comfort of the sea breeze are two of the area's biggest charms. While situated in a good location approximately 2.5km to Ginza Station, it is surrounded by the sea on three sides and is a special living environment where you can have a great view of Tokyo while being in Tokyo.

However, during the period where it will be used as the athletes' village during the Tokyo Olympic and Paralympics Games, the general public will not be able to experience the actual environment and amazing views at the site. Even if you make full use of the model rooms and general video exhibitions of the sales center, it is difficult to convey the appeal of the city blocks, housing units and landscapes that provide great value to HARUMI FLAG to many people.

HARUMI FLAG offers more than 1,000 types of housing unit plans. However, the model rooms that can be exhibited at the sales center are limited to five types. Yoichiro Takagi from Mitsui Fudosan Residential Co., Ltd., the representative company of the private business group, reflects, "There aren't many people who can imagine a living space with just a model and ground plan. We initially had a vague idea that if we could make it possible for people to experience housing unit plans by using imaging technology, it could become a useful sales support tool and offer a simulated view experience as well." Panasonic was then consulted to provide a solution to this issue.

Delivering value to towns with imaging technology.

Panasonic developed the "VIRTUAL STAGE MIERVA", a space production solution for the sales center. A new virtual reality (VR) system that lets multiple people experience the attractions of the town simultaneously was introduced in the building. This system projects video content such as the interior of the housing units, a stroll through the courtyard and views from the upper floors onto an immersive curved 3D screen with a wide field of view. The unknown VR experience that is like an entertainment space has garnered a great deal of interest among visitors. Currently, the "MIERVA Dome Type" and "MIERVA View Experience Type" are operating at the sales center.



The dome type "VIRTUAL STAGE MIERVA" introduced by the "HARUMI FLAG Pavilion". VR with a wide viewing angle up to about 180 degrees in all directions that is close to human viewing angles is projected onto a 2.5m-high screen with two high-brightness projectors. Immersive images can be experienced.

Reproduce the view of the Rainbow Bridge with dynamic images.

Until now, there were many cases of exhibiting the view from the window displays with enlarged photos, but the views projected by MIERVA were close to the views experienced on a real scale and had great impact.

The changes of the light and the sea that were different from still images were conveyed using time-lapse videos overlooking the Rainbow Bridge from morning to night (images showing the passage of time in a short playback time).

This projection experiment realizes the "MIERVA View Experience Type" that reproduces the beautiful views overlooking the sea with dynamic images. At the exhibition in the sales center, it was combined with Panasonic's "Light Manager Fx" and the indoor lighting was linked with the changes of the images from morning to night to add a dimming and color mixing production.



The image above is the "MIERVA Dome Type". An immersive experience can be obtained by calculating the viewer's point of view (standing position, height) and projecting images on a 1/1 scale. It is possible for multiple people to experience VR images at the same time, which could only be experienced by one person through conventional goggles.



The image above is the "VIRTUAL STAGE MIERVA View Experience Type" that lets you experience the spectacular scenery from the windows with images. Images taken at a fixed point from the actual building are projected onto a screen outside the window using four high-brightness laser projectors and ultra short focus lenses.

Changing the selling of real estate with VR.

One of MIERVA's strength is that information and experiences that are conveyed according to need can be changed or added by simply replacing the content. No special equipment is necessary to shoot the image data, which is a resource of the content. Generating 3D data from scratch for an exhibition is costly and time consuming, but with MIERVA, it is possible to process BIM, CAD and 3DCG data created for design reviews into presentation content. At the HARUMI FLAG Pavilion, the content is scheduled to be replaced with content for the towers of the two buildings soon after the end of the Olympic and Paralympic Games.

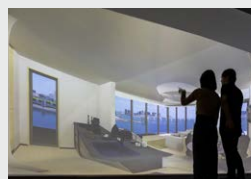
For example, in the case of HARUMI FLAG, customers can experience the appeal of the views and environment with a sense of "surprise" before listening about the overview of the housing units and facilities. Also, the salespeople can simply convey their ideas about the plans and facilities to make the most of their appeal based on customer experience and understanding.

MIERVA was originally a software technology that controlled multiple projectors and connect each of the images seamlessly. In addition to this new technology, Panasonic attempted to solve various issues with a system that goes beyond its field of responsibility, which included projectors, lenses, screens, lighting and content processing. In the future, Panasonic will further expand the expression areas of MIERVA and work to build a system that can be customized according to your needs.

Installed Products



Virtual Reality System "VR"



Virtual Stage "MIERVA"



Light Manager Fx

