Panasonic CONNECT

CASE STUDY

Panoramic projection in the Connecting corridor of the National Museum in Prague

Client: National Museum
Location: Wenceslas Square 68, Prague 1, Czech Republic

Product(s) supplied: PT-RZ660

Challenge

The main intention was to create a multimedia projection in a new unique space, which was created during the extensive reconstruction of the Historical building of the National Museum. The space consists of an underground corridor that connects the Historical building with the New building.

Solution

Projection architect Martin Hejl designed a projection with a total length of 112 meters on both sides of the corridor, which brings visitors a unique experience. 38 pieces of Panasonic PT-RZ660 laser projectors were used in combination with ultra-short ET-DLE035 lenses.

"“The installation in the Connecting corridor is exceptional not only in its size but above all in its interesting concept, where two projections are placed opposite each other. It is the second-largest multimedia installation in the world. The image is generated by a set of projectors, which are composed of 19 combined efficient synchronized projections on each wall. This created a film space in a hyper-panoramic format.""

Petr Vlček
Managing Director – AVT Group

The National Museum is the largest museum in the Czech Republic. It covers a range of disciplines from natural sciences to specialized areas of social sciences. It combines collections of materials documenting the development of nature, history and prehistory of Czech and foreign origin.

Extensive reconstruction

For several years, the Historical building of the National Museum was closed due to extensive reconstruction. The ceremonial reopening took place on 28 October 2018 on the occasion of the 100th anniversary of the founding of Czechoslovakia and 200 years since the founding of the museum.

Connecting corridor

During the reconstruction, the exhibition spaces of the museum were expanded, the halls were roofed and thus the exhibition area was increased. The connecting corridor between the Historical and New buildings creates a Museum Complex of the National Museum thanks to the new underground connection of both buildings. More than 50 meters of panels were installed on both sides.

Exhibition "Moments of History"

The local exhibition is called Moments of History and uses a unique multimedia projection to map the history of this place from prehistory to the present. Here we can observe the transformations of Wenceslas Square in Prague, a detailed visualization of individual buildings and events. The aim of the entire exhibition is to draw the viewer into the projected event as much as possible, which is taken care of by an image over two meters high, as well as an immersive audio system with 32-channel sound.

Technical solution

The entire projection is provided by **38 Panasonic PT-RZ660 laser projectors**, which create a perfectly smooth image in conjunction with **38 Panasonic ET-DLE035 lenses** with ultra-short projection distance, to prevent glare from visitors and at the same time eliminate projection interference.

The individual image parts handle Intel NUC computers (19 pcs, each for 2 projectors) and one Intel NUC control computer, which ensures the final synchronization of the image so that it is absolutely seamless.

Specifics

As the installation itself was accompanied by sophisticated and very accurate image calibration, the AVT Group designed a sprung anchor system for the projectors with special silent blocks that dampen vibrations from road traffic above the tunnel and eliminate future inaccuracies that could disrupt image consistency. Before starting the installation itself, an operational test was performed in another area to confirm the functionality of the entire system in advance.

Sound part of the exhibition

The visual part of the exhibition is complemented by a sound system, which allows you to compose a custom sound so that it is in line with what is happening on the screen, so that the sound and image are aligned. This is achieved by a large number of speakers (32 pcs of Bose RMU105), each of which has its own channel on the amplifier (4 pcs of 8-channel PowerMatch 8250 amplifiers).

The whole set is designed so that both parties can function independently of each other. Despite their compact dimensions (necessary for placement in confined spaces between the ceiling slats), the selected speakers have sufficient power and suitable radiation characteristics, which allow the viewer and the listener to identify the position of the sound source, which creates the right spatial perception.