



GLOWING BULBS IMPLEMENTS COMPLEX SIGNAL MANAGEMENT SOLUTION AT CODE VESZPRÉM WITH LIGHTWARE

Market

Live Events and Entertainment

Country

Hungary

Lightware Equipment Used in Project

Taurus TPX Product Family | Gemini GVN Product Family

Opened in February 2024, **CODE in Veszprém** is an independent creative hub where the digital world of arts and sciences is brought to life in a series of immersive spaces. Designed to be a studio for artistic experimentation as well as a visitor attraction, CODE is dedicated to fostering a community of creatives in one of Hungary's oldest cities. CODE partnered with visual arts and technology specialists, Glowing Bulbs Collective, to implement a complete AV system across several rooms, encompassing control, projection and audio. Lightware's signal management solutions played a key role in this complex project.



“We have a strong heritage in the visual arts and have worked on many projection-related projects,” explains Tamás Zádor, CEO at Glowing Bulbs. ***“From our beginnings in content creation, we have built our collective and now implement turnkey design and integration solutions for all kinds of immersive, mapping and creative AV projects. We were approached by CODE to provide technical consultation and, ultimately, design and implement the entire AV system.”***

Glowing Bulbs designed and planned the global AV system integration, including all visual elements, the network infrastructure and the immersive audio system. The vision included several unique spaces: the main room, a hexagon-shaped space of 400 square metres, a studio space with an L-shaped projection, the ground-level lobby, a workshop area and a circular foyer space, which runs around the perimeter of the main space.



“For the main room, we have 14 Panasonic 4k projectors working with an interactive system, which allows users to interact directly with the content being displayed,” continues Zádor. ***“Running around this main space is the foyer, an area where digital artists might gather to experiment directly with the content playing in the main room in real-time.”***

In partnership with Ars Electronica, an arts and technology institution based in Linz, Austria, CODE's studio space includes collaborative content displayed via a huge L-shaped projection. Finally, CODE's workshop area offers 10 workstations for onsite training and content development, whilst the lobby space also includes tech in the form of smaller interactive installations.



The entire system runs on an array of custom servers. ***“We custom-built a robust system that is capable of handling this level of data,”*** says Zádor. ***“The aim was to create an infrastructure that is future-proof and open source that offers the client the flexibility and space to scale things in the future. That’s also why we opted for Lightware for signal transmission—their products interface well with all technologies.”***

Glowing Bulbs integrated a total of **24 transmitter-receiver pairs of Taurus TPX** and **12 Gemini GVN AV-over-IP extenders**. ***“Gemini GVN is a key feature of our system,”*** confirms Zádor. ***“It enables centralised system control, allowing us to connect to any computer on the server, and manage both control and projection across the entire site.”***

In the main space, users can connect to the system and interact with any computer interface required to operate the space. This includes controlling different elements, from renders on the floor and walls to generating real-time content. By allowing the unification of data across twenty nodes, **Gemini GVN** delivers a streamlined, high-level control solution.

For video signal extension, **Taurus TPX** transmits 4k signals from the server room to the desired projection and content playback locations. ***“With Taurus TPX, you plug it in and it just works,”*** says Zádor. ***“The power over ethernet is a key advantage with this product, and with Lightware’s lightning-fast support, choosing their products is a no-brainer.”***

Despite the complexity of the network infrastructure at CODE, the Glowing Bulbs team cites the flexibility and reliability of Lightware’s products as essential to the system’s success. The open nature of Lightware’s products offers major benefits, allowing for them to be integrated with many other technologies and for the system to be scaled up to meet the evolving needs of artists and the CODE community.

“CODE is an amazing space for artists to come and experiment with digital artworks in real-time,” continues Zádor. ***“What we’ve created might be one of the most advanced video systems in Hungary, and Lightware’s signal management solutions are an essential component.”***



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