



# Custom MediaFacade for Autostadt / Volkswagen

## The Challenge:

Autostadt, the visitor attraction centre adjacent to the Volkswagen factory in Wolfsburg, Germany, featured a main façade with an integrated Neon installation that needed to be replaced.

The new installation had to adhere to three major design criteria: it had to simulate the original neon installation, blend seamlessly with the building's clean, modern architecture and it had to remain true to Volkswagen's values of environmental protection and sustainable development.

"The Autostadt team was specifically looking for an LED solution that would offer them sophisticated video technology capabilities yet would also blend seamlessly with the existing architectural structure of the building," says Claas Ernst, eFour's Founder and CEO. "They wanted an installation with full video control and color blending ability in order to convert the modern steel/glass façade into a true media façade."

## The Solution:

Autostadt cooperated directly with eFour to custom design, build and deliver the media façade. eFour offered Autostadt a custom-designed LED solution of 800 linear meters of video controlled diffused LED tube that covers over 2000 square meters of building façade, with all LED tubes in custom lengths that fill the exact height of each single window frame in the façade. The tubes were placed vertically across the façade to form a vast low-resolution screen capable of displaying abstract visuals and color fades, but also text and video graphics.

As one major design criteria for the install was to simulate the finish of the original Neon tube installation, it was requested to cover the single LED video pixel with a diffuse material that is homogeneously backlit to look just like neon-tubes.

The façade features tubes each 230cm in length with 90 individual

video-controllable pixels using high quality NICHIA 3-in-1 SMD LEDs per tube - hence the façade consists of over 30.000 individually controllable pixels.

The new installation delivers a color depth of over 1 billion colors due to proprietary video control that uses 30bit pixel control. It has an impressively low power consumption of only 25W per tube. For a large part of the year the installation will be white in color to simulate the original Neon installation. Since the entire LED system is based on sophisticated video processing technology with full color correction capability it was easy to program it to exactly simulate the color tone of the old white neon installation.



*To obtain a clean, minimal look that does not clash with the building's clean design, each tube was mounted as 'self supportive' inside the window frames without any need for secondary support structures.*



The result? A state-of-the-art installation with full video capabilities that saves over 70% in energy and maintenance costs compared to the original neon installation.

Using a Pandoras Box Media Server system as video source, Autostadt has decided to integrate the façade into the communication mix for seasonal events. While the system mimics the original neon installation for most of the year, it takes full advantage of its video control capabilities to display custom-created content to support events such as the company's Winter Event, the Movimentos Festival weeks or the Christmas Season, during which the display is used as Christmas calendar, counting the days until Christmas Eve against a sparkling background.

To obtain a clean, minimal look that does not clash with the building's clean design, each tube, measuring 35mm in width and 80mm in height, was mounted as 'self supportive' inside the window frames without any need for secondary support structures. The custom-designed mounting brackets and cable covers, as well as a construction matched in color and texture to the building's own metal construction, results in a perfectly integrated, highly transparent, and elegant installation.

### The Result:

"We are very proud to have been chosen by the Autostadt team to deliver this beautiful architectural project, which allowed us to show just a fraction of our technical capabilities. With our experience, flexibility and attention to detail we convinced Autostadt that eFour would be the best partner to deliver this unique video installation based on their very specific requirements. We are proud today to see the Autostadt team absolutely satisfied with the way we managed the project, the combined team effort with other companies involved in the project, the smooth integration and the final result." Ernst concludes.

### Key project facts:

#### Technology used:

336 custom designed and manufactured eFour LED video tubes (800 running meters)

#### Client:

Autostadt GmbH  
Volkswagen AG

#### Architect:

Henn Architekten

#### Autostadt Project Team:

Ralf Kösters  
Thomas Wlocka