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Case study

dnp Supernova Infinity at King's Cross Station



TfL's Art on the Underground delivered their movie commission on a giant HD video screen to thousands of London travellers every hour. Better quality than LED screens at a fraction of the cost.

Our brief

As part of TfL's Art on the Underground visual arts showcase, artists Broomberg and Chanarin produced 'The Bureaucracy of Angels', a powerful and thought provoking short film concerning migrants and their plight in escaping from Libya to Sicily in unseaworthy boats. The striking and moving imagery, combined with a Sicilian-themed soundtrack, needed a system of the highest quality.

We were asked to provide a 5.12 metre wide full HD video display in one of London's busiest underground railway stations, Kings Cross & St Pancras, over a walkway along which thousands of travellers pass each hour.

There was no major structural support for mounting our screen, just a glass balustrade, challenging us to find ways of securing the screen in its desired location.

We had to work with possibly the toughest fire regulations in the world. This station was the site of a major fire tragedy on 18 November 1987, this project falling on its thirtieth anniversary.

Health and safety regulations allowed only opportunities to work a handful of hours in the early mornings.

The London Underground environment is very dusty as a result of trains' braking systems. Whatever system was specified had to withstand these additional environmental challenges.

Project facts

Client

ADi Audiovisual and Transport for London (TfL)

Site

King's Cross Underground station

Screen

5m wide dnp Supernova Infinity Screen

Projector

Panasonic 10,000-lumen laser projector www.visualdisplaysltd.com



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Our solution

Following detailed site survey, including auditing the location's light levels with our laboratory meters, our design team specified a bespoke dnp Supernova Infinity screen to be coupled with a Panasonic 10,000 lumen laser projector.

The dnp Supernova Infinity projection screen provided the solution to a complex knot of problems:

- Ambient light rejecting (ALR) technology, coupled with dnp's accurate image brightness and contrast planning tools, ticked the first box. At 5.12m x 2.88m image area, this was an image area of some 15m² – a large area to drive with 10,000 projection lumens. dnp's calculation tools ensure clients can be confident of exceptional image quality.
- The option for the highest fire resistance certification rating was a non-negotiable in this location.
- The surface is wipe-clean allowing easy maintenance in a hostile environment.
- The mounting structure and the screen itself are both rugged and light, making mounting and installation easy and flexible.
- The dnp screens are modular and quick to assemble meaning we were able to install even within the limited night time hours available.

Project at a glance

- dnp Supernova Infinity (08-85), 5120mm x 2880mm. Special order for A2 fire resistance substrate.
- Bespoke screen mounting by Visual Displays.
- Panasonic PT-RZ970, 10,000 lumen laser 1-chip DLP projector.
- Audio system delivering soundtrack above main viewing area
- Media player delivering the HD video and audio on a continuous twelve minute loop.

Client feedback

"In purely display terms, TfL wanted a seamless screen delivering top-quality HD video, and accurate colour rendering was paramount," says Mark Wayman, ADi's co-founder. "The weight of the screen was important since the installation would rest upon on a glass balustrade. And finally, TfL also has extremely strict fire and safety regulations."

TfL's Curator and Technical Programme Manager, Niamh Sullivan, was thrilled with the results. "The effect is simply amazing," she exclaims. "When we commissioned this large display, we had no idea it would look this good."

"I just wanted to drop a line to say thanks so much for everything you did to help our project in King's Cross succeed. It was an absolute pleasure to work with you both and I think we achieved something really special."