SERIES

Datapath technology at the heart of cinema's curved 'flying' video wall

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BACKGROUND

In February 2018, when film lovers first walked into the new Showcase Cinema de Lux Southampton, they would have noticed something very different suspended above their heads in the main foyer. A unique, 40-screen curved and 'flying' video wall is the proud creation of Beaver Group, a specialist in delivering tailor-made, creative content solutions that relied on Datapath x-Series range of video wall controllers and Wall Designer software to help deliver this one-of-a-kind installation.

Showcase Cinema de Lux Southampton is a new 10 screen cinema in Westquay Shopping Centre, and is the first in the UK to have laser projection and Dolby Atmos™ as standard in every screen, as well as fully customisable electric recliners and a super-sized XPlus screen.

THE CHALLENGE

Beaver Group was commissioned to provide digital concession screens, live box office signage screens, video walls and digital one-sheets, as well as a unique 40-screen curved and 'flying' video wall installation in the main foyer. In May 2016, the company began work on the initial concepts for the installation, producing isometric models, concept drawings, 3D renders and test videos.

Peter Critchley, Managing Director of Beaver Group, says: "Due to its location, suspended over 11 metres high in the lobby using a complex steel-cable suspension system, we always knew that maintenance or repairs to the video wall could potentially be a challenge moving forwards. For this reason we opted for a professional, reliable delivery system from Datapath for the signal. We had used Datapath before on another prestige project, and they were our primary choice for Showcase Southampton."

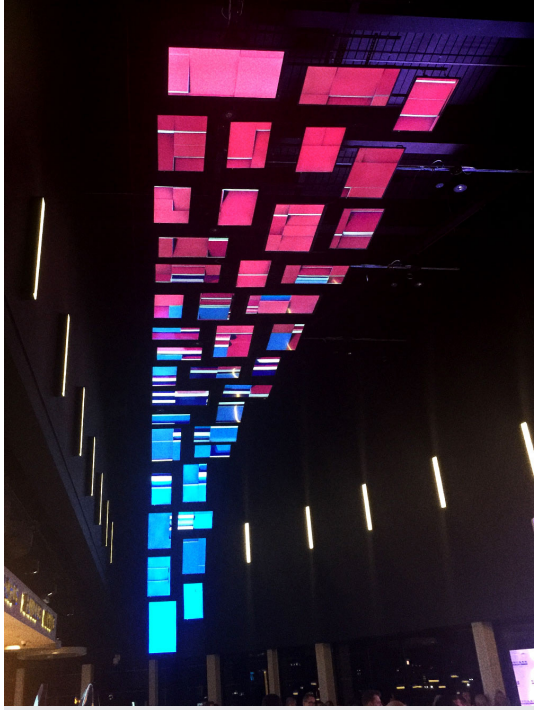
THE SOLUTION

Ten Datapath x-Series wall controllers provide the image overlapping capabilities on the video wall. Each output monitor can take its input from any region of the DVI image, since all the required cropping, scaling, rotation and frame rate conversion is handled by the x4 hardware. These regions can overlap to allow any output to replicate another, or they can be configured to support any creative splice of the source material. This capability allows the support of many non-rectangular screen arrangements with uneven gaps, and any mix of orientations.

Using NEC V series large-format displays, the content for the video wall canvas, which changes on a monthly basis, ranges from artistic video concepts such as falling popcorn and glittering chandeliers, through to trailers and custom promotional pieces for the latest blockbusters. The content is rendered in an immersive 8K resolution, built and maintained via the Datapath Wall Designer software package.

"This revolutionary technology allowed us to map out the screen order template: which was subsequently imported into Adobe's After Effects," explains Mr Critchley. "As a high-end technical solution, we can create, host and support dynamic visual effects and motion graphics which, in real terms, ensure the physicality of the video wall works seamlessly with content and software, reacting accurately and dynamically to the blueprint of the canvas."

The 'flying' video wall is a great example of the complex and intricate installations that Beaver Group can deliver. Content is produced by the company's in-house team using a mixture of 3D animation, motion graphics and photography.



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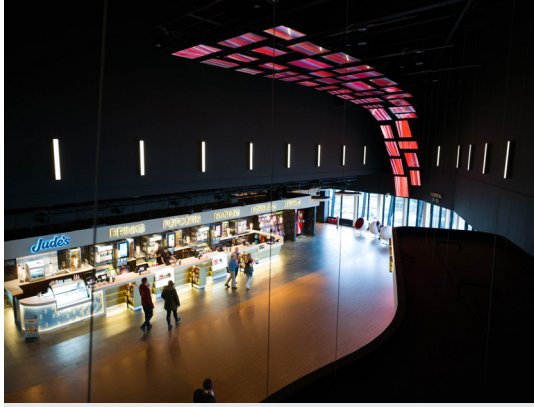
Peter Critchley, Beaver Group.



The large-scale video wall at Showcase Cinema de Lux Southampton now curves up the lobby ceiling in a stunning wave formation, with the ultimate impression being that each screen 'floats' above the lobby (with no fixings visible). To further immerse patrons, an audio system is installed, using discreet speakers, amplifying content played on screen.

Such is the impact made by the installation that it was entered in the AV Awards 2018.

"The project is a complete and professional example of how audio-visual signage solutions and digital technology should be installed in cinema foyers to create an engaging and immersive experience for guests," explains Mr Critchley. "Everything is supported by a robust technical hardware and software solution, and a fully managed content plan."

Moving forward there are now plans to extend the video wall beyond its current boundaries. This will involve installing even more screens at the highest level, creating a second curve in the wave as it continues to roll across the ceiling. Much like the content variations and mix of screen sizes and orientation, the video wall is an adaptable solution, blending best practice and technology with a canvas potential that has surpassed expectations.

REFERENCE
Datapath
www.datapath.co.uk

Datapath UK and Corporate Headquarters
Bemrose House, Bemrose Park,
Wayzgoose Drive, Derby,
DE21 6XQ, United Kingdom
+44 (0) 1332 294 441
sales-uk@datapath.co.uk

Datapath North America
2490 General Armistead Avenue,
Suite 102, Norristown,
PA 19403,
USA
+1 484 679 1553
sales-us@datapath.co.uk

www.datapath.co.uk

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