Talking Walls:
From 3D Realism To Reality

EXD selects AMD FirePro™ professional graphics to power high performance video wall controller.

Seamless screens

Once the domain of surveillance and air traffic control rooms, video walls are now familiar fixtures in busy public places, like retail stores, movie theatres and corporate offices. With their intense colour, larger-than-life size images and the ability to stretch one image across a single large screen, video walls are essential marketing tools used all over the world.

"Our customers are increasingly using video walls for digital signage and control room purposes. In addition to a large number of displays, extremely high display resolution and 24/7 operation, they are often looking for unusual configurations," explained Azeem Khan, director of Extra Dimensions Pvt. Ltd. (EXD). A system integration and a research company, EXD provides video wall controllers, video walls, touch and interactive display solutions. EXD also supplies 3D solutions for rendering and GIS (geo-information systems) for the cinema, defence and government industries. "The challenge for us is to create a video wall with a single seamless screen and keep all the different displays in sync," continued Khan.

Keeping multiple displays synchronized is the responsibility of the video wall controller, a critical piece of equipment that also helps to generate the massive resolution required by high density imagery. The larger the size of a video wall, the more prominent it will be in a public space and more demand is placed on the controller to drive the video wall with clear and consistent imagery.

CUSTOMER:
Extra Dimensions Pvt. Ltd. (EXD)

INDUSTRY:
Digital Signage

BUSINESS OPPORTUNITY:
• Create high impact, multiple display video walls for international customers
• Ensure reliable performance 24/7

SOLUTION:
• AMD FirePro™ S400
• AMD FirePro™ W600
• AMD FirePro™ W7000
• AMD FirePro™ W8000
• AMD FirePro™ W9000

BUSINESS IMPACT:
• Vivid, high resolution, seamless screen images
• Highly customised solutions in unusual configurations
• Consistent and reliable 24/7 performance

AMD FIREPRO™ PROFESIONAL GRAPHICS FAST FACTS:
• EXD selected AMD FirePro™ professional graphics to support the EXD PRONTO video wall controller
• AMD FirePro™ professional graphics are used to power multiple displays and create a single seamless image

A wall of colour and action

Because it specializes in unusual video wall solutions, EXD decided to focus its expertise on designing a video wall controller that could set a benchmark for power and cost-effectiveness. The result, after much research and testing, was the EXD PRONTO. Because it is completely customizable, down to the last tiny detail, this controller is suitable for different applications in a range of industries. Kalash Rathore, technical director of EXD said that when it came to selecting a graphics card for the EXD PRONTO, the requirements were clear. "For a high performance video wall controller, it is essential to use professional graphics cards that provide multiple outlets. In fact, I would say that graphics cards are the most important aspect of the whole solution."

He explained that one of the problems with multiple display systems is the 'tearing' effect within an image that often results when frames drop out of synchronization. This clearly spoils the overall impact. "Our experience with many graphics output cards on the market is that issues like this can emerge with playback of ultra-high resolution videos," said Rathore.

"We knew we needed graphics cards capable of driving a high number of displays, generating ultra-high definition resolutions, creating a single seamless screen, and operate reliably everyday within any type of configuration. In addition we were looking for easy to use functionalities because the more complicated a set-up is, the higher the chance of failure," Rathore continued. After rigorous testing of many top-end graphics cards from a range of manufacturers, EXD selected AMD FirePro™ professional graphics.

Keeping demanding clients satisfied

Offering ultra high resolution graphics with exceptional image quality through a range of industry standard display connectors such as VGA, DVI and DisplayPort, AMD FirePro™ professional graphics make it easy to configure multi-display set ups. With a space efficient, low profile design, AMD FirePro™ professional graphics can easily be deployed; plus they feature passive heat sinks that enable exceptional energy efficiency and longevity.

Using AMD FirePro™ professional graphics, EXD has installed many video wall controllers which are successfully running in 24/7 working environments. These include multiple display set-ups such as the installation of a 28 display video wall in a 14 x 2 horizontal format, a nine display video wall in 3 x 3 display format and a 16 display set up in 2 x 8 display format. "Across all our installations we have not observed the frame loss, out of sync displays or tearing," said Pradeep Negi, director of Marketing at EXD.

According to Negi, the options provided in AMD's driver software include many built-in features that help tune the hardware to optimal performance in any situation, for example the choice of portrait or horizontal mode and bezel correction. "Above all, what matters is the kind of response we receive from AMD. Whenever we need support it is provided without any delay even at inconvenient times of day. Not only do we appreciate the quality of AMD hardware, the valuable support provided by AMD's team is crucial. This is helping us to develop and deliver reliable solutions, whatever the degree of project complexity."

"With amazing hardware performance, along with excellent support provided by AMD application engineers, we could provide our highly demanding clients with exceptional value for money and extremely efficient computing performance, achieving fantastic results and ensuring complete reliability."

Azeem Khan, Director of Extra Dimensions Pvt. Ltd. (EXD)

AMD