Smart art

How Stereolize is using AMD FirePro™ professional graphics to create breathtaking interactive displays

Customer:
Stereolize

Industry:
Large-scale interactive presentations

Business impact:
- Imagine and build three inspiring exhibition installations to a very tight deadline
- Integrate four projectors to create a huge seamless image
- Ensure reliability and consistency throughout intensive visitor use

Solution:
- AMD FirePro™ professional graphics with AMD Eyefinity technology
- Ventuz Real-time Graphics & Authoring software

Business impact:
- Development time cut to just three weeks, a tremendous achievement over the Christmas and New Year period
- Huge success for Peugeot, the end-customer; visitors lined up to learn about latest vehicle models
- Very positive feedback from Peugeot's event agency Minotaur

Stunning and stylish

Imagine the presentation of your dreams; then ask Stereolize to make it happen. This German-based creative agency has a passion for technology and learning so when Belgian event agency Minotaur began organizing a huge educational event for its customer French car manufacturer Peugeot, it turned to Stereolize for assistance.

The brief for Stereolize was to use the most innovative projection and display techniques so that Peugeot resellers would experience the latest models when they visited an exhibition in Valencia. With a particular focus on interactivity, Stereolize developed the content, navigation and graphics for three customized installations. The aim was for participants to understand and appreciate the features of different vehicles.

Laser technology enabled viewers of a multi projector image to follow the stages of car development and a responsive glass panel allowed visitors to steer material with touch navigation. Finally, an installation of seven transparent panels, each with an intuitive menu, invited users to explore different cars. Not surprisingly, these state-of-the-art displays presented numerous technical challenges.

Interactive immersion

Sven Krippner, Graphics Designer at Stereolize, picks up the story, "We always use Ventuz, a realtime software that incorporates all the infrastructure required; it integrates pictures, video, music and 3D objects; and then animates as desired. We frequently take this application to its fullest capacity, testing limits all the time and giving feedback to Ventuz Technology. Knowing what demands we were going to make on the system with this project there was no doubt that we were going to need AMD professional graphics in conjunction with Ventuz."

According to Sven, the most technically challenging part of the project was the interactive installation using four Barco SLM R8 projectors. Each of these had a resolution of 1280 x 1024 pixels at 50 Hz projecting on to a huge 20m x 4.50m screen to create a seamless image. "The first major challenge was to find a high performance 3D graphics card with four outputs and a driver that would permit an overall horizontal span. The only solution was the AMD solution: AMD FirePro™ professional graphics with AMD Eyefinity technology."

Sven and his colleagues had to optimise the 3D content in such a way that one workstation would be able to run it fluidly at a resolution of 5120 x 1024 pixels and remain stable during intensive use throughout a whole day. Then the team aligned the AMD Eyefinity technology driver and graphics at 1280 x 1024 pixels and 50Hz with the projectors and sent data to them through a DisplayPort-DVI (Digital Visual Interface) Adapter, a Gefen 8x8 DVI Matrix and 30 meters of DVI Cable. The flexibility of the Eyefinity setup allowed straight forward recognition and acceptance of the EDID (Extended Display Identification Data) from the projectors, which was stored in the Gefen DVI matrix. With everything set up, AMD Eyefinity was the key to creating one large image rather than four separate and distinct images. All that was required was for the designers to shape the screen and blend the edges.

AMD FirePro™ Fast Facts

- **AMD Eyefinity[1] multi-display technology supporting up to six independent displays**
- **AMD FirePro™ V8800 graphics for more polygons, bigger textures, better content and a higher resolution**
- **AMD Eyefinity technology driver and graphics aligned at 1280 x 1024 pixels and 50Hz with the projectors**

Making a big impression

The three installations attracted huge amounts of attention with participants lining up to engage with the content and enjoy the navigation experience. Minotaur reported that Peugeot was delighted with the installations and the feedback from visitors.

That was despite the fact that Stereolize had only two weeks before Christmas to develop the content and one week afterwards to install and adjust the computer, videomixer, audiomixer, terminals and projectors whilst making final edits. "The holiday period really cut short the time we had to prepare. It was sometimes difficult to contact our client and other suppliers. One reason we were able to meet the tight deadline was because of the reliability and responsiveness we get from the combination of Ventuz and AMD."

Smart working at speed

Sven concludes "Once we knew that we wanted to spread an image over four screens then there was only one option: AMD professional graphics with AMD Eyefinity technology. We could not have done it any other way. Without Eyefinity the setup for a multi-projector presentation would simply be too complicated and too risky. It would have involved trying to synchronise various workstations and installing unproven third party solutions such as a video mapper. Without Eyefinity we would not have been able to offer our clients the spectacle that comes from a multi-screen setup."

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Sven Krippner, Graphics Designer, Stereolize

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