3D VIEW

STEREOGRAPHICS®

Power Wall Drives Automotive Design

At Silicon Graphics Inc. (SGI) Automotive Solutions Center in Farmington Hills, Michigan, a new manufacturing visualization theater has been established that allows auto manufacturers to visualize and evaluate designs. The SGI Power Wall is a 20' x 8' rear-projected screen designed for the real-time visualization of virtual prototypes. Using CrystalEyes 3D eyewear from StereoGraphics and EnSight software from CEI, the Power Wall has evolved from its role as an SGI sales tool to become a valuable analysis and visualization resource for nearly every major auto maker.

"We consider it invaluable," said Steve Fine, manager of SGI automotive marketing and research group. "CrystalEyes adds an extra level of realism to the prototyping process. In fact, the images look so real, that we've had people walk right into the wall while looking at a model."

The most time-consuming and costly element of the design, development and manufacturing process is prototyping and testing designs. In a digital environment, prototyping and testing is much faster and less costly than building physical prototypes at each stage.

And while faster computers, better software and higher-resolution graphics systems have gone a long way toward allowing designers to visualize their work, virtual prototyping can't be truly accomplished without a realistic 3D view of each image. This requires devices that can deliver a stereoscopic 3D view of computer-based images to designers the same way they perceive the real world.

"In the manufacturing space, especially in digital prototyping, stereo imaging is essential," said Fine. "For simulation and product design, the 3D aspect is very important."

StereoGraphics Solutions Guide

In the last edition of 3Dview, we included an insert announcing the advent of the new StereoGraphics Solutions Guide (SGSG). The purpose of the guide is to make all of our hardware and software partners' products visible to as many customers as possible. As a registered end-user or a member of the StereoGraphics developer program, we need your help in getting the guide filled with the most updated information available!

As a reminder — even if you think we have your product information, please send us a response. We do not want to take a chance of not listing your StereoGraphics compatible product or products. If you do not have a form, please contact the Developer Relations department and one will be faxed to you. The StereoGraphics Products and
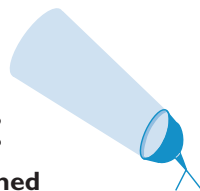
CONTEST WINNER!

In the October edition of 3Dview we announced the extension of the contest for our readers where we wanted to see your best stereoscopic images for use with our SimulEyes glasses. We had a good number of submissions and the winning entry was awarded to Joe Littlejohn, a 15-year old high school student from England, for his stereo-enabled shiny.avi file. Joe used the Mindrender VR Explorer Kit by Themekit to create this cool animation short. The file has been uploaded for viewing on our website.

A copy of the Java software tool Symantec Café, has been awarded to Joe for producing this killer app! We want to thank Joe and all of the participants for taking the time to submit their entries. Be on the look out for future contests with more killer prizes in upcoming editions of 3Dview.

In This Issue

SPOTLIGHT:

**Dave Forter Named
New StereoGraphics CEO**

StereoGraphics has named David Forter to the position of president and CEO. Mr. Forter brings 26 years of successful leadership in high technology to StereoGraphics and contributes a wealth of expertise in directing growing organizations. He joins StereoGraphics from desktop peripherals manufacturer Alps Electric (U.S.A.), Inc., where he served as that company's vice president and general manager.

"As our range of technologies broadens and our market presence expands, we need experienced leadership to carry StereoGraphics to the next level," said Lenny Lipton, founder, chairman and chief technical officer for StereoGraphics. "For his whole career, Dave Forter has demonstrated superb capabilities in guiding both growing and well-established organizations to positions of unprecedented success. We're excited and fortunate to have him on-board and we look forward to even greater success."

At Alps, Mr. Forter was responsible for managing the U.S. subsidiary of a $4-billion Japanese electronics company. Prior to Alps, he was the chief operating officer of the Sherwood Terminals Division. He also served as director of the X Terminal program for Wyse Technology.

"StereoGraphics has an incredible mix of exciting technology, highly-capable people and a leading-market presence," said Forter. "We are clearly on the verge of dramatic expansion in the 3D visualization market and StereoGraphics is extremely well positioned to take advantage of that growth."

DEVELOPER RELATIONS REPORT

Dear Developers,

This issue of 3Dview is especially important to us. It marks our one-year anniversary of providing you with the latest and greatest news from the stereoscopic world. We hope that in the past year you have gained an insight into stereo-3D — and how people are using StereoGraphics products and technology to enhance their software and hardware applications.

In looking at the year in review, we've seen an increase in our Developer Program membership from 700 to over 1000 registered developers. This tells us that stereoscopic eyewear is no longer to be considered a specialty product but rather a product that has become a necessity to many scientific and engineering professionals. From the Advanced Vehicle Development group at Ford, to the scientists landing the Mars Pathfinder, to the life saving HIV treatments from Abbott Laboratories; stereoscopy is leading the way to better innovations on all fronts. We would like to take this opportunity to thank all of our developers for their continued support. Only in working together can we make these exciting advances happen.

The coming year will truly be an exciting one for StereoGraphics and our developers. We will continue to provide you with Software Developer Kit (SDK) updates on a regular basis and we encourage all interested parties to contact us if they would like to make an addition to the SDK. You are also encouraged to contact us if you would like to contribute an article to 3Dview. If you have a specific topic you would like us to cover, or a group or organization you would like us to spotlight — please let us know.

The new year will also bring with it the new StereoGraphics Solutions Guide (SGSG) — a document that will allow for an easy reference to the list of companies providing hardware and software solutions for StereoGraphics CrystalEyes, Monitor ZScreen and SimulEyes products. As we implement and watch the SGSG grow, we ask you to please keep us posted on any new software or hardware products made compatible with StereoGraphics stereoscopic industry standards. We can all succeed by working together.

We wish you and yours the best for the holiday season.

With best wishes,

Toby D'Elia
Developer Relations Manager
toby@crystaleye.com

Prior to Wyse, Mr. Forter spent two decades with the Hewlett Packard Company in a succession of key roles, which included serving as market development manager for the company's first PC divisions. During his tenure with HP, Mr. Forter developed and directed management training programs and served as sales development manager for the company's data terminal products.

Before entering the high-technology marketplace, Mr. Forter served as an officer in the U.S. Marine Corps, attaining the rank of Captain. He received a BSEE from the Moore School at the University of Pennsylvania and an MBA from the university's Wharton School of Business.

IN THE NEWS

StereoGraphics and HP Announce Direct Support

StereoGraphics announced that the new Hewlett Packard Company (HP) VISUALIZE fx4 and fx6 OpenGL graphics engines directly support CrystalEyes stereoscopic 3D visualization products from StereoGraphics. Together, HP and StereoGraphics have long delivered high-performance 3D visualization products to their customers, enabling a more complete virtual prototyping process and reducing time-to-market for manufacturers worldwide.

The HP VISUALIZE fx4 and fx6 graphics engines are among the most powerful OpenGL accelerators available on the desktop for mechanical design and virtual prototyping. In addition, the HP VISUALIZE fx4 offers cross-platform versatility, delivering outstanding 3D performance on both UNIX systems and Windows NT platforms. Combined with the HP Direct Model API and stereo-3D display capabilities, the VISUALIZE family of graphics engines delivers an ideal combination of capabilities, performance and value.

"Support for stereo viewing and CrystalEyes has always been a priority in the HP visual computing strategy," said Vern Rhead, VISUALIZE graphics products manager, HP workstation systems division. "Stereo viewing is a key enabler for our primary customer base, and we're happy to be working with StereoGraphics."

StereoGraphics CrystalEyes has been in use on HP workstations for nearly a decade in key design and engineering centers such as General Motors, Ford, Boeing and NASA. CrystalEyes is a lightweight, wireless eyewear system that delivers high-definition, stereoscopic 3D images in conjunction with compatible software and standard workstation displays.

Support for the Intel Open Arcade Architecture

StereoGraphics now provides support for the Intel Corporation Open Arcade Architecture Initiative with its family of stereoscopic 3D products. StereoGraphics, in conjunction with its industry partners, demonstrated its arcade 3D-vision products at the Intel Open Arcade Forum in Santa Clara on August 26. This support and prominent presence at the forum signifies an acceptance by key members of the arcade initiative that stereoscopic 3D is an important and compelling entertainment data type.

Scotland-based game developer Inner Workings is enabling a Stereo 3D version of its first arcade title, Plane Crazy. "We are always looking for new features and technologies to incorporate into our products and we are pleased to be working with StereoGraphics," said Andrew Walker, strategic business manager for Inner Workings.

VIRTUAL PROTOTYPING
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Stereoscopic visualization, high-performance computing and advanced software tools come together to give auto makers the virtual prototyping capabilities they need at the SGI Automotive Solutions Center. In addition to its large projection screen and three-pipe Onyx2 IR rack, the Power Wall features StereoGraphics CrystalEyes as its 3D visualization tool. CrystalEyes is supported by all SGI workstations and has been the standard for computer-based stereoscopic 3D visualization for nearly two decades.

"We see stereo viewing as a significant enhancement of EnSight software's advanced features," said Hugh Patrick, president and CEO of CEI. "Stereo viewing brings highly-effective and inexpensive 3D depth perception, normally associated with high-end full immersion virtual reality systems, to the engineer's desktop."

This visualization technique helps designers understand the true function and aesthetics of their work before prototypes are ever created. This eliminates the repetitive back-and-forth, trial-and-error process of design, prototype and re-design. The end result is superior design and a much shorter time between the first computer model and final production.

For large manufacturers, the cost of development as well as the time it takes to bring a product to market can be greatly reduced using virtual prototyping methods. For smaller manufacturers, a rapid design process can be the difference between market leadership and being

Contact StereoGraphics

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Attention! 3DVIEW is now available electronically—email develop@crystaleye.com to be added to the mailing list.

Qualix Direct Holiday Special

Order from Qualix Direct before Dec. 31, 1997 and get a FREE CrystalEyes Protective Case (a $45 value)! Call Qualix Direct for details at 1-800-455-9273.

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SOLUTIONS GUIDE
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Services list will NOT be referenced for the StereoGraphics Solutions Guide, so if we do not receive a response from you, your company will miss out on this great opportunity.

We thank you for your support and we look forward to seeing your product in our new guide! Please do not hesitate to contact the Developer Relations department at 415-455-1838 if you have any questions or need clarification on any of the material presented on the form.

VIRTUAL PROTOTYPING
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shut-out by the competition. By enabling true virtual prototyping wherever visual data is viewed and analyzed, stereoscopic viewing not only reduces cost, but also gives manufacturers a critical time-to-market edge.