

CEI's new EnSight DR software brings record-setting parallel graphics to desktop

*EnSight DR is first commercial visualization product to harness supercomputing-like graphics power on networked PC clusters*

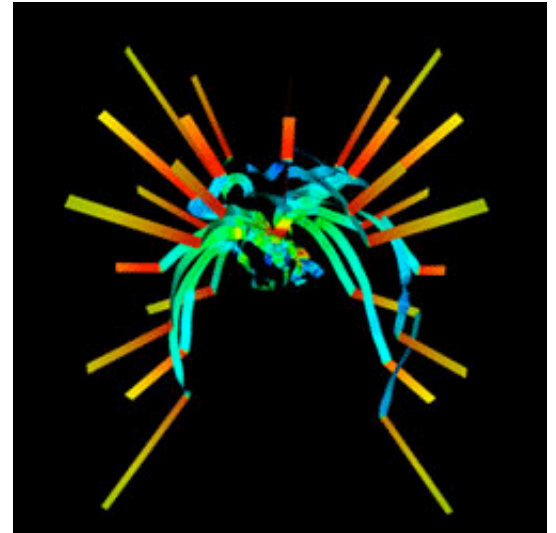
*APEX, N.C., December 15, 2005* – CEI has released EnSight DR, the first

commercial visualization application that brings the power of parallel graphics to the user's desktop. EnSight DR, announced last month at the SCI05 show, combines CEI's visualization software, EnSight, with record-setting distributed rendering technology.

“Up until now, only expensive supercomputers have been able to efficiently render extremely large data sets,” says Dale Southard, a visualization hardware architect at Lawrence Livermore National Laboratory (LLNL). Lawrence Livermore, Sandia and Los Alamos National Laboratories helped CEI develop its DR methodology in support of the Department of Energy (DOE) National Nuclear Security Administration's (NNSA) Advanced Simulation and Computing Program.

“The availability of a commercial visualization application that harnesses off-the-shelf hardware for visualizing large scientific datasets containing tens of millions and even billions of polygons is critical to the success of our national security work,” says Southard.

In August, EnSight DR technology was used to shatter the previous record for graphics rendering speed during tests conducted by Southard and CEI engineers at LLNL. CEI's parallel rendering compositor achieved a speed of 3.17 billion polygons per second using 76 standard dual-processor PCs running on a high-performance networking system. The scene used for testing contained 684 million triangles and ran at a rate of 4.6 frames per second. The results of the LLNL tests more than doubled the previous rendering record set in March.



*The visualization of astrophysical simulations, part of the DOE-funded Terascale Supernova Initiative (TSI), will greatly benefit from EnSight DR. Image courtesy of Dr. John M. Blondin, NCSU.*

## Supercomputing power on clusters

CEI's EnSight DR automatically distributes polygon data into pieces for balanced rendering on multiple graphics processing units (GPUs) running on networked PCs. Once images are rendered, EnSight DR composites the pieces into a single image. The entire process is transparent to the user, making EnSight DR appealing for a wide range of high-end visualization applications.

“Advance customer demand for EnSight DR has been strong,” says Darin McKinnis, CEI's vice president of sales and marketing. “We were expecting interest to be limited initially to government research labs, but EnSight DR has already been licensed by customers from defense, automotive, aerospace and other industries.

“Customers are finding the single-price license appealing; unlike other CAE vendors, we are not charging extra for additional rendering nodes within a cluster. Cluster hardware manufacturers are happy with EnSight DR licensing for the same reason.”

### Available Now

EnSight DR is available through CEI and its authorized distributors worldwide. It will be on display at the

annual AIAA Aerospace Sciences Meeting and Exhibit, January 9-12 in Reno, Nev., and at CEIViz '06 ([www.ensight.com/ceiviz06](http://www.ensight.com/ceiviz06)), the first international conference for high-performance visualization, February 22-23 at the Disney Coronado Springs Resort in Orlando, Fla.

For more details on CEI's DR technology, see these recent articles:

[http://www.ensight.com/products/ensight\\_dr.html](http://www.ensight.com/products/ensight_dr.html)

[http://www.ensight.com/news/supercomputing\\_05.html](http://www.ensight.com/news/supercomputing_05.html)

[http://www.ensight.com/news/graphics\\_record.html](http://www.ensight.com/news/graphics_record.html)

### **About CEI**

CEI ([www.ensight.com](http://www.ensight.com)) offers a complete suite of tools for engineering and scientific visualization, from meshing to plotting to animations that can be run on the most advanced VR displays. The company has corporate headquarters in Apex, N.C., and authorized distributors around the world. In addition to software products, CEI provides consulting services to engineers and scientists from organizations that need to visualize computational results for research, product design or product refinement.

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