EVE 4

electronic visualization events number 4

presented at
The University of Illinois at Chicago
Gallery 400, School of Art and Design

About EVE 4...

This is the fourth in a series of Electronic Visualization Events (EVEs) organized by the students, staff and faculty of the Electronic Visualization Laboratory at the University of Illinois at Chicago. The first three were held April 1975, April 1976, and May 1978 in Chicago, and were a series of live performances in which images were computer generated and color processed in real time with musical accompaniment.

EVE 4, marking the 20th anniversary of the first EVE event, is taking place May 9-19, 1995 at UIC's Gallery 400 and at the Electronic Visualization Laboratory. It features CAVE-based virtual-reality displays, interactive installations, prints, Web-based galleries, and a video theater.

About the Electronic Visualization Laboratory...

EVL advances research in computer graphics and interactive techniques through its unique interdisciplinary blend of engineering, science, and art; its students receive MS, PhD and MFA degrees through the UIC Electrical Engineering and Computer Science department and the UIC School of Art and Design. EVL's current research emphasis is virtual reality; however, faculty and students are also involved in a number of related cutting-edge problems: multimedia; scientific visualization; new methodologies for informal science and engineering education; paradigms for information display; algorithm optimization for parallel computing; sonification; and, abstract mathematical visualization.

Most recently recognized for its work in virtual reality with the introduction of the CAVE virtual reality theater in 1992, EVL has a history of innovative contributions to the computer graphics field since its inception in 1973. In the mid '70s, EVL created Electronic Visualization Events, a series of public performances where images were computer generated and color processed in real time with musical accompaniment. Around the same time, EVL hardware and software were used to create the computer animation for the first "Star Wars" movie. In 1976, based on an idea by colleague Rich Sayre, EVL developed an inexpensive, light-weight glove to monitor hand movements; the Sayre Glove provided an effective method for multidimensional control, such as mimicking a set of sliders. Projects in the 1970s through mid-1980s centered on videogame technology, real-time animation on microcomputers, and interactive multimedia installations.

In the late'80s, the Lab began focusing on scientific visualization, developing and providing tools and techniques for research scientists and engineers. Continuing these efforts, EVL is now applying virtual environments to scientific computing. EVL promotes the use of these advanced technologies to academic, industrial and government audiences, to make people aware that technology is key to America's leadership role, through installations at museums and professional conferences. In recent years, EVL has received major funding for its collaboration and outreach activities from NSF, ARPA, and the U.S. Department of Energy.

EVL's 1987 "The Interactive Image" is on permanent display at The Computer Museum in Boston and the St. Louis Science Center. EVL faculty, staff, and students organized the SIGGRAPH 92 Showcase event; Showcase featured 35 projects on workstations networked to onsite and remote supercomputers that illustrated interactive and collaborative scientific computing and visualization research, and marked the introduction of the CAVE. The Lab recently organized the SIGGRAPH 94 VROOM event, a major virtual reality exhibition highlighting computational science and engineering applications. EVL is now focusing its efforts on soliciting and helping develop content for the Supercomputing 95 "GII Testbed" event, as well as leading the development of the conference's unique Information Architecture and national networking infrastructure. Additionally, EVL has been, and continues to be, a major influence on the advancement of electronic art and entertainment; EVL alumni and artists are internationally recognized for interactive art installations, performance art pieces, and entertainment productions.

EVL contains state-of-the-art graphics workstations and a video editing suite, plus access to the SGI Power Challenge Array and Convex supercomputers at NCSA, and to the IBM SP-2 at Argonne National Laboratory.