

Selective Update

SIGGRAPH 86 clears the goalposts at Dallas

Frank Crow, CG&A Editorial Board

SIGGRAPH 86 brought 22,200 people from all over the world to attend courses and see the new computer graphic wares being exhibited. Attendance at short courses was very high, and just as many people could be found between the classes they had chosen, wending their way between the 249 exhibitors.

The "state of the art" course featured Tom Duff with a very approachable explanation of ways to use quaternions with B-splines to achieve smooth sequences of rotations. Don Greenberg reviewed the work of recent years on "radiosity" at Cornell.

Frank Crow shared his experiences in distributing image rendering tasks over a local area network. Rob Cook, the organizer for this course, spoke of the distributed ray-tracing work done in the last couple of years at Pixar. Finally, Al Barr told about work at Caltech in which self-assembling systems were animated using the laws of physics and a few rules specifying which components were connected to which and how they were attracted to each other.

Monday night the course reception was held at "Southfork," the outdoor filming site for the TV show *Dallas*. Course participants were met at the entrance by greeters who supplied "y'alls" and Texas flag bandanas to wear during the evening, which a surprisingly large number (40 percent) actually did.

The reception featured Texas barbecue, Mexican-style food, and the usual assortment of booze and beverages. Tours of the house revealed it to be a sumptuously



appointed, somewhat large, conventional home. At least one bedroom featured padded walls, leading some to speculate on the activities of the occupants. A major difficulty throughout the evening turned on the fact that nobody present would admit they'd ever watched *Dallas*.

Finally, Cindy Goral of the Ampex ADO group filled us in on some of the mysteries of "the shower" and "who shot J.R." A fireworks display capped the evening, and a "J.R." look-alike was on hand for photo opportunities. Typical August weather held sway during the early part of the week, with daytime temperatures reaching into the 100's. Interior temperatures, on the other hand, stayed cool enough to require jackets in moments of inactivity. The latter half of the week, peak temperatures—helped by a few rain showers—plummeted into the lower 90's.

The vendor exhibits showed the usual incremental increases in performance and number of offerings everywhere. However, there was an explosion in the number of

vendors offering complete modeling and rendering packages for commercial art and animation.

Two developments in display monitors were interesting. Megascan, the new company from the Three Rivers founders, showed a 300-dot-per-inch monitor with $4K \times 3K$ pixels on a 19" screen! That's four times the number of pixels anyone else is offering. At the moment, you only get one bit per pixel. However, Megascan claims gray scale is coming.

Zenith showed its "flat tension mask" tube in a 640×480 pixel monitor. Their booth was located right across from a doorway admitting bright sunlight. Yet even in such poor viewing conditions, the image showed exceptional brightness. With a contrast-enhancing filter, the image showed wonderful contrast and color fidelity.

This year's new rendering techniques were the portrayal of waves and surf and the representation of draped cloth. Two papers were presented on waves: "Modeling Waves and Surf," by Darwin Peachey, and "A Simple Model of