Supercomputing Students Attend OSU Summer Institute at Ohio Supercomputer Center

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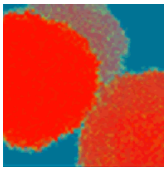
Columbus, Ohio -- July 26, 1994 -- As a part of The Ohio State University Summer Institute at the Ohio Supercomputer Center (OSC) from July 11-22, fifteen Ohio high school students and two high school teachers worked with Ohio's high performance computers -- supercomputers normally reserved for professional scientists and engineers.

The students were selected for their achievements in math, science, computers, and the arts, according to Al Stutz, OSC associate director. "In most high schools, computers are used to teach business and word processing," explains Stutz. "We want to expose high school students to scientific computing to teach them how to use programming and visualization techniques," said Stutz.

The students used high end workstations and accessed the CRAY Y-MP8/864, one of the world's most powerful supercomputers. The students were divided into five groups to work on their particular projects.

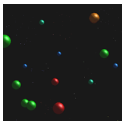
One set of students created mathematical functions and used polygonal data to animate geometric objects with varying properties,



while another studied the Reed-Frost Epidemic Model that graphically simulates the variable spread of disease through a population.

Two groups of students studied the behavior of waves that can be found in nature using the 2-Dimensional Wave Equation. By varying boundary conditions and the initial disturbance, they controlled the motion of the wave.

The fifth group studied the classical 3-body particle dynamical system and extended it to include multiple bodies. They also used numerical integration to simulate the behavior of moving particles.



Throughout the Institute, guest speakers from industry and academia shared their

thoughts and experiences regarding the impact of supercomputing in areas such as the environment, chemistry, physics, mathematics, industry, and the arts.

The Ohio Supercomputer Center is a state-funded, shared resource of high performance computing for Ohio's researchers, both academic and industrial.

Subjects:
Summer Educational Programs