



History of Supercomputing

Era: Deep Time 1960

In a huge advance for the era, Mines student Albert Musgrave created an analog computer system dedicated to the purpose of constructing seismic "wavefront charts".



Era: Mainframe Class Supercomputers '80-'84

Cyber 170 Series Model 720



Some Specs

- 40 MHz
- 60-bit words
- A theoretical peak performance of 0.17 MFLOPS

- NOS operating system
- 256,000-words memory
- Usage: Seismic Processing

Funding:
Funding for the Cyber was provided by the Keck Foundation

The W. M. Keck Foundation was established in 1954 in Los Angeles by William Myron Keck, founder of The Superior Oil Company. Mr. Keck envisioned a philanthropic institution that would provide far-reaching benefits for humanity. By taking a bold, creative approach to grantmaking, he created a legacy that the Foundation proudly upholds today. Supporting pioneering discoveries in science, engineering and medical research has been and continues to be the Foundation's mandate. In the area of education, it supports undergraduate programs that promote inventive approaches to instruction and effective involvement of students in research.



Around 1984 the Cyber was retired because it had become too expensive to operate and maintain, and the forefront of seismic computing was moving toward workstations.



HPC's First Home The Green Center

Completed in 1971, the Cecil H. and Ida Green Graduate and Professional Center is named in honor of Dr. and Mrs. Green, who were major contributors to the funding of the building. Dr. Green was a co-founder and vice president for Texas Instruments. The "Green Center" served as the primary data center for Mines until the beginning of this century and continued to house some HPC resources until 2014. It also holds 85,000 square feet of event areas comprised of a Grand Lobby which can act as an exhibit area, two lecture halls, (Metals and Petroleum), reception halls (Friedhoff 1, 2 & 3), and an 1,100 seat theater (Bunker Auditorium). Thus, the Green Center serves the Mines community as both a "community event center" and as a campus event facility.



In summer '92 Cecil was joined by Mines Professor Phil Romig Jr. on a two week geological survey of the State of Colorado. CIO Emeritus Derek Wilson was giving Cecil a tour of the data center when he stopped to look at a framed poster of Bay Area earthquakes and he pointed out exactly where he was on the map when the earthquake struck in 1906 when he was 6 years old.

Digital Equipment Corporation

In the same timeframe as the Cyber 720 was on campus Mines also was home to a DEC PDP-10. The DEC computers of this era had a 36-bit word, 512,000 words total for this machine.

