

The Top500 Project: Lessons Learned in Fourteen Years of Experience

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Abstract:

The TOP500 project was started in 1993 to provide a reliable basis for tracking and detecting trends in high-performance computing. Twice a year, a list of the sites operating the 500 most powerful computer systems is assembled and released. The best performance on the Linpack benchmark is used as performance measure for ranking the computer systems. The list contains a variety of information including the system specifications and its major application areas. Information on all twenty eight TOP500 lists is to be found at: <http://www.top500.org/>
Here is the outline of my talk:

- Mannheim Supercomputer Statistics 1986 – 1992 and Top500 Project Start in 1993
- Competition between Manufacturers, Countries and Sites
- My Two Supercomputer Favorites in all Top500 lists so far
- The 28th List as of November 2006
- Performance Development and Performance Projections
- Top500 in the Future

The 29th Top500 list will be released and highlighted in the Opening Session of ISC'07 in Dresden (June 26 – 29, see <http://www.isc07.org>)

At the end of this TOP500 presentation Martin Meuer (Executive Director of the International Supercomputing Conference) will give very shortly informations on our forthcoming 22nd International Supercomputing Conference, especially emphasizing why this conference is of special interest for attendants from Japan.

Portrait & CV

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Hans Meuer is the managing director of Prometheus GmbH, and the general chairman of ISC2007 in Dresden. He is professor of computer science at the University of Mannheim, faculty of mathematics and computer science. In 1986, he became co-founder and organizer of the first Mannheim Supercomputer Conference, which has been held annually ever since. In 1993, Hans Meuer started the TOP500 initiative together with Erich Strohmaier. They will publish the 29th TOP500 list at ISC2007 in Dresden. Hans Meuer received his doctorate in mathematics from the Technical University (RWTH) of Aachen. He has been involved in data processing and computer science for more than 45 years. He served as specialist, project leader, group and department chief during his 11 years at the Research Center in Jülich, Germany, from 1962 - 1973. For the following 26 years, he was director of the computer center at the University of Mannheim, Germany. Since 1998, he has been managing director of Prometheus GmbH, the service company specialized in the field of High Performance Computing.