TOP500 Supercomputer Sites

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Abstract

To provide a better basis for statistics on high-performance computers, we list the sites that have the 500 most powerful computer systems installed. The best LINPACK benchmark performance achieved is used as a performance measure in ranking the computers.

1 Introduction and Objectives

Statistics on high-performance computers are of major interest to manufacturers, users, and potential users. These people wish to know not only the number of systems installed, but also the location of the various supercomputers within the high-performance computing community and the applications for which a computer system is being used. Such statistics can facilitate the establishment of collaborations, the exchange of data and software, and provide a better understanding of the high-performance computer market.

Statistical lists of supercomputers are not new. Every year since 1986 Hans Meuer [1] has published system counts of the major vector computer manufacturers, based principally on those at the Mannheim Supercomputer Seminar. Statistics based merely on the name of the manufacturer are no longer useful, however. New statistics are required that reflect the diversification of supercomputers, the enormous performance difference between low-end and high-end models, the increasing availability of massively parallel processing (MPP) systems, and the strong increase in computing power of the high-end models of workstation suppliers.

To provide this new statistical foundation, we have decided to assemble and maintain a list of the 500 most powerful computer systems. Our list has been compiled with the help of high-performance computer experts, computational scientists, manufacturers, and the Internet community in general who responded to a questionnaire we sent out; we thank all the contributors for their cooperation. We have also used parts of statistical lists published by others for different purposes [2].

In the present list (which we call the TOP500), we list computers ranked by their performance on the LINPACK Benchmark. While we make every attempt to verify the results obtained from users and vendors, errors are bound to exist and should be brought to our attention. We intend to update this list half-yearly and, in this way, to keep track with the evolution of computers. Hence, we welcome any comments and information; please send electronic mail

to *top500@rz.uni-mannheim.de*. The list is freely available by anonymous ftp to ftp.uni-mannheim.de/top500/ or to www.netlib.org/benchmark/top500.ps. The interested reader can additionally create sublists out of the TOP500 database and can make statistics on his own by using the WWW interface at http://parallel.rz.uni-mannheim.de/top500/top500.html or http://www.netlib.org/benchmark/top500.html. Here you also have access to postscript versions of slides dealing with the interpretation of the present situation.

2 The LINPACK Benchmark

As a yardstick of performance we are using the "best" performance as measured by the LINPACK Benchmark [3]. LINPACK was chosen because it is widely used and performance numbers are available for almost all relevant systems.

The LINPACK Benchmark was introduced by Jack Dongarra. A detailed description as well as a list of performance results on a wide variety of machines is available in postscript form from *netlib*. To retrieve a copy send electronic mail to *netlib@ornl.gov* and by typing the message *send performance from benchmark* or from any machine on the internet type:
rcp anon@netlib2.cs.utk.edu:benchmark/performance performance.

The benchmark used in the LINPACK Benchmark is to solve a dense system of linear equations. For the TOP500, we used that version of the benchmark that allows the user to scale the size of the problem and to optimize the software in order to achieve the best performance for a given machine. This performance does not reflect the *overall performance* of a given system, as no single number ever can. It does, however, reflect the *performance of a dedicated system for solving a dense system of linear equations*. Since the problem is very regular, the performance achieved is quite high, and the performance numbers give a good correction of peak performance.

By measuring the actual performance for different problem sizes n, a user can get not only the maximal achieved performance R_{max} for the problem size N_{max} but also the problem size $N_{1/2}$ where half of the performance R_{max} is achieved. These numbers together with the theoretical peak performance R_{peak} are the numbers given in the TOP500. If in the future a more realistic metric finds widespread usage, so that numbers for all systems in question are available, we may convert to that performance measure.

3 The TOP500 List

Table 1 shows the 500 most powerful commercially available computer systems known to us. To keep the list as compact as possible, we show only a part of our information here:

• N_{world}	Position within the TOP500 ranking
• Manufacturer	Manufacturer or vendor
• Computer	Type indicated by manufacturer or vendor
• Installation Site	Customer
• Location	Location and country
• Year	Year of installation/last major update
• Field of Application	
• # Proc.	Number of processors[1]
• R_{max}	Maximal LINPACK performance achieved
• R_{peak}	Theoretical peak performance
• N_{max}	Problemsize for achieving R_{max}
• $N_{1/2}$	Problemsize for achieving half of R_{max}

If R_{max} from Table 3 of the LINPACK Report [3] is not available, we use the TPP performance given in Table 1 [3] for solving a system of 1000 equations. In a few cases we interpolated between two measured system sizes or we scaled by cycle times. For models where we did not receive the requested data, the performance of the next smaller system measured is used.

If there should be any changes in the performances given in Table 1 we will update them.

In Table 1, the computers are ordered first by their R_{max} value. In the case of equal performances (R_{max} value) for different computers, we have chosen to order by R_{peak}. For sites that have the same computer, the order is by memory size and then alphabetically.

TOP500 **Supercomputers - Worldwide**

N $_{world}$	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
1	Fujitsu Numerical Wind Tunnel	NAL Japan /1993	Research Aerospace	140	**170400** 236000	42000 13800
2	Intel XP/S140	Sandia National Labs Albuquerque USA /1993	Research	3680	**143400** 184000	55700 20500
3	Intel XP/S-MP 150	Oak Ridge National Laboratory Oak Ridge USA /1995	Research	3072	**127100** 154000	86000 17800
4	Cray T3D MC1024-8	Government USA /1994	Classified	1024	**100500** 152000	81920 10224
5	Fujitsu VPP500/80	National Lab. for High Energy Physics Japan /1994	Research	80	**98900** 128000	32640 10050
6	TMC CM-5/1056	Los Alamos National Laboratory Los Alamos USA /1993	Research Energy	1056	**59700** 135100	52224 24064
7	Fujitsu VPP500/42	Japan Atomic Energy Research Japan /1994	Research	42	**54500** 67200	. .
8	TMC CM-5/896	Minnesota Supercomputer Center USA /1994	Academic	896	**52300** 114700	. .
9	Cray T3D MC512-8	Los Alamos National Laboratory Los Alamos USA /1994	Research Energy	512	**50800** 76000	57856 7136
10	Cray T3D MC512-8	Pittsburgh Supercomputing Center Pittsburgh USA /1994	Academic	512	**50800** 76000	57856 7136
11	IBM SP2/512	Cornell Theory Center USA /1994	Academic	512	**44200** 136000	53000 13500
12	IBM SP2/400	Maui High-Performance Computing Center (MHPCC) USA /1994	Research	400	**44200** 106000	53000 13500
13	IBM SP2/256	IBM/Poughkeepsie Poughkeepsie USA /1995	Vendor	256	**44200** 86000	53000 13500
14	Fujitsu VPP500/30	The Angstrom Technology Partnership Tsukuba Japan /1993	Research	30	**39812** 48000	. .
15	Fujitsu VPP500/30	Tsukuba University Tsukuba Japan /1993	Research	30	**39812** 48000	. .
16	Fujitsu VPP500/28	Institute of Physical and Chemical Res. (RIKEN) Tokyo Japan /1993	Research	28	**37225** 44800	. .
17	Intel XP/S-MP 41	Rome Laboratory USA /1995	Research	816	**33700** 40800	. .
18	Cray T3D MC320-8	University of Edinburgh Edinburgh UK /1995	Academic	320	**31700** 38000	. .
19	TMC CM-5/512	NCSA Urbana-Champaign USA /1993	Academic	512	**30400** 66000	36864 16384
20	TMC CM-5/512	National Security Agency USA /1993	Classified	512	**30400** 66000	36864 16384

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TOP500 **Supercomputers - Worldwide**

N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
21	IBM SP2/160	NASA/Ames Research Center/NAS Moffett Field USA /1994	Research	160	**28700** 42500	42200 10300
22	Hitachi S-3800/480	Hitachi Ltd. GPCD Japan /1994	Vendor Software	4	**28400** 32000	15500 830
23	Hitachi S-3800/480	University of Tokyo Tokyo Japan /1993	Academic	4	**28400** 32000	15500 830
24	Cray T3D SC256-8/264	Caltech/JPL Pasadena USA /1994	Academic	256	**25300** 38000	40960 4918
25	Cray T3D MC256-8	Cray Research Eagan USA /1994	Vendor	256	**25300** 38000	40960 4918
26	Cray T3D MC256-8	Defense Research Agency Farnborough UK /1994	Classified	256	**25300** 38000	40960 4918
27	Cray T3D MC256-8	Ecole Polytechnique Federale de Lausanne Lausanne Switzerland /1994	Academic	256	**25300** 38000	40960 4918
28	Cray T3D SC256-8/364	Lawrence Livermore National Laboratory Livermore USA /1994	Research Energy	256	**25300** 38000	40960 4918
29	Cray T3D SC256-8/464	Los Alamos National Laboratory Los Alamos USA /1994	Research Energy	256	**25300** 38000	40960 4918
30	NEC SX-3/44R	Atmospheric Environment Service (AES) Dorval Canada /1994	Research Weather	4	**23200** 26000	6400 830
31	NEC SX-3/44R	NEC Fuchu Plant Japan /1990	Vendor	4	**23200** 26000	6400 830
32	NEC SX-3/44R	Tohoku University Tohoku Japan /1993	Academic	4	**23200** 26000	6400 830
33	Fujitsu VPP500/16	Fujitsu Ltd. Numazu Japan /1993	Vendor	16	**21700** 25600	14592 3090
34	Fujitsu VPP500/16	Kyoto University Kyoto Japan /1994	Academic	16	**21700** 25600	14592 3090
35	Fujitsu VPP500/16	Tokyo University - Inst. of Solid State Physics Tokyo Japan /1994	Academic	16	**21700** 25600	14592 3090
36	Hitachi S-3800/380	Hokkaido University Sapporo Japan /1994	Academic	3	**21600** 24000	15680 760
37	Hitachi S-3800/380	Institute for Materials Research/Tohoku University Japan /1994	Academic	3	**21600** 24000	15680 760
38	NEC SX-3/44	Atmospheric Environment Service (AES) Dorval Canada /1991	Research Weather	4	**20000** 22000	6144 832
39	Cray T3D SC192-8/464	ZIB/Konrad Zuse-Zentrum fuer Informationstechnik Berlin Germany /1994	Academic	192	**19050** 19000	. .
40	NEC SX-3/34R	National Inst. for Molecular Science Okozaki Japan /1993	Research	3	**17400** 19500	6144 691

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N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
41	Intel XP/S35	Caltech Pasadena USA /1994	Research	512	**15200** 25600	23000 9000
42	Intel XP/S35	Oak Ridge National Laboratory Oak Ridge USA /1992	Research	512	**15200** 25600	23000 9000
43	TMC CM-5/256	GECO-PRAKLA Houston USA /1994	Industry Geophysics	256	**15100** 33000	26112 12032
44	TMC CM-5/256	Government USA /1993	Classified	256	**15100** 33000	26112 12032
45	TMC CM-5/256	Thinking Machines USA /1993	Vendor	256	**15100** 33000	26112 12032
46	TMC CM-5/256	US Naval Research Laboratory Washington D.C. USA /1992	Research	256	**15100** 33000	26112 12032
47	Intel Delta	Caltech Pasadena USA /1991	Academic	512	**13900** 20480	25000 7500
48	Cray Y-MP C916/16256	Cray Research Eagan USA /1992	Vendor	16	**13700** 15238	10000 650
49	Cray Y-MP C916/16256	DKRZ Hamburg Germany /1995	Research Weather	16	**13700** 15238	10000 650
50	Cray Y-MP C916/161024	DOD/CEWES Vicksburg USA /1994	Research Mechanics	16	**13700** 15238	10000 650
51	Cray Y-MP C916/16256	DOE/Bettis Atomic Power Laboratory USA /1993	Research	16	**13700** 15238	10000 650
52	Cray Y-MP C916/16256	DOE/Knolls Atomic Power Laboratory USA /1993	Research	16	**13700** 15238	10000 650
53	Cray Y-MP C916/16512	DOE/National Security Agency USA /1994	Classified	16	**13700** 15238	10000 650
54	Cray Y-MP C916/16256	ECMWF Reading UK /1994	Research Weather	16	**13700** 15238	10000 650
55	Cray Y-MP C916/16512	Ford Motor Company Dearborn USA /1993	Industry Automotive	16	**13700** 15238	10000 650
56	Cray Y-MP C916/16512	Ford Motor Company Dearborn USA /1995	Industry Automotive	16	**13700** 15238	10000 650
57	Cray Y-MP C916/161024	Government USA /1992	Classified	16	**13700** 15238	10000 650
58	Cray Y-MP C916/161024	Government USA /1992	Classified	16	**13700** 15238	10000 650
59	Cray Y-MP C916/161024	Government USA /1992	Classified	16	**13700** 15238	10000 650
60	Cray Y-MP C916/161024	Government USA /1992	Classified	16	**13700** 15238	10000 650

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N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
61	Cray Y-MP C916/16512	Government USA /1994	Classified	16	**13700** 15238	10000 650
62	Cray Y-MP C916/16256	Government Communications Headquarters Benhall UK /1994	Classified	16	**13700** 15238	10000 650
63	Cray Y-MP C916/16512	KIST/System Engineering Research Institute Korea /1993	Academic	16	**13700** 15238	10000 650
64	Cray Y-MP C916/16256	Lawrence Livermore National Laboratory Livermore USA /1992	Research Energy	16	**13700** 15238	10000 650
65	Cray Y-MP C916/161024	NASA/Ames Research Center/NAS Moffett Field USA /1993	Research	16	**13700** 15238	10000 650
66	Cray Y-MP C916/16256	NOAA Suitland USA /1994	Research Weather	16	**13700** 15238	10000 650
67	Cray Y-MP C916/16512	Pittsburgh Supercomputing Center Pittsburgh USA /1994	Academic	16	**13700** 15238	10000 650
68	Cray Y-MP C916/16256	Res. Inf. Processing System (RIPS) Tsukuba Japan /1994	Research	16	**13700** 15238	10000 650
69	Cray Y-MP C916/161024	Tohoku University, Institute of Fluid Science Aramaki Japan /1994	Academic	16	**13700** 15238	10000 650
70	Cray Y-MP C916/161024	US Naval Oceanographic Command Bay Saint Louis USA /1994	Research Weather	16	**13700** 15238	10000 650
71	Cray Y-MP C916/16256	United Kingdom Meteorological Office Bracknell UK /1994	Research Weather	16	**13700** 15238	10000 650
72	Fujitsu VPP500/10	Communications Res. Lab. (CRL) Tokyo Japan /1993	Research	10	**13675** 16000	. .
73	Cray T3D MC128-8	Air Force/Eglin Air Force Base USA /1994	Classified	128	**12800** 19000	20736 3408
74	Cray T3D MC128-8	CEA/Centre d'Etudes Limeil-Valenton France /1993	Research	128	**12800** 19000	20736 3408
75	Cray T3D MCA128-8	CEA/Centre d'Etudes Nucleaires Grenoble France /1994	Research Energy	128	**12800** 19000	20736 3408
76	Cray T3D MC128-8	Cray Research Eagan USA /1995	Vendor	128	**12800** 19000	20736 3408
77	Cray T3D MCA128-8	ECMWF Reading UK /1994	Research Weather	128	**12800** 19000	20736 3408
78	Cray T3D MC128-8	EXXON USA /1994	Industry Geophysics	128	**12800** 19000	20736 3408
79	Cray T3D MC128-8	Minnesota Supercomputer Center USA /1994	Academic	128	**12800** 19000	20736 3408
80	Cray T3D MC128-8	Phillips Petroleum Company Bartlesville USA /1994	Industry Geophysics	128	**12800** 19000	20736 3408

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81	Cray T3D MCA128-2	Reactor Nuclear Fuel Development Japan /1994	Research	128	**12800** 19000	20736 3408
82	Cray T3D MCA128-8	Tohoku University, Institute of Fluid Science Aramaki Japan /1994	Academic	128	**12800** 19000	20736 3408
83	Cray T3D MC128-8	University of Alaska - ARSC Fairbanks USA /1995	Academic	128	**12800** 19000	20736 3408
84	IBM SP2/70	Leibniz Rechenzentrum Muenchen Germany /1995	Academic	70	**12470** 18620	. .
85	Intel XP/S-MP 14	Oak Ridge National Laboratory Oak Ridge USA /1995	Research	288	**12000** 14400	. .
86	Intel XP/S30	UCSD/San Diego Supercomputer Center San Diego USA /1993	Academic	400	**11900** 20000	. .
87	NEC SX-3/24R	German Aerospace Laboratory (DLR) Goettingen Germany /1994	Research Aerospace	2	**11600** 13000	4352 516
88	NEC SX-3/24R	NEC Fuchu Plant Japan /1994	Vendor	2	**11600** 13000	4352 516
89	NEC SX-3/24R	National Institute of Fusion Science (NIFS) Japan /1993	Research	2	**11600** 13000	4352 516
90	NEC SX-3/24R	Swiss Scientific Computing Center Manno Switzerland /1994	Research	2	**11600** 13000	4352 516
91	TMC CM-5/192	GECO-PRAKLA Houston USA /1995	Industry Geophysics	192	**11400** 24600	. .
92	IBM SP2/64	CERN Geneva Switzerland /1994	Research	64	**11400** 17000	26500 6250
93	IBM SP2/64	Maui High-Performance Computing Center (MHPCC) USA /1994	Research	64	**11400** 17000	26500 6250
94	IBM SP2/59	Pennsylvania State University USA /1994	Academic	59	**10525** 15690	. .
95	Intel XP/S25	NAL Japan /1994	Research	336	**10000** 16800	. .
96	Intel XP/S25	NRAD USA /1994	Research	336	**10000** 16800	. .
97	IBM SP2/55	KTH - Royal Institute of Technology Stockholm Sweden /1995	Research	55	**9825** 14630	. .
98	TMC CM-200/64k	Los Alamos National Laboratory Los Alamos USA / .	Research Energy	2048	**9800** 20000	29696 11264
99	TMC CM-200/64k	Los Alamos National Laboratory Los Alamos USA / .	Research Energy	2048	**9800** 20000	29696 11264
100	Fujitsu VPP500/7	Institute of Space Astronautical Science (ISAS) Tokyo Japan /1993	Research	7	**9650** 11200	. .

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N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
101	IBM SP2/48	NASA/Langley Research Center Hampton USA /1994	Research	48	**8600** 12770	. .
102	IBM SP2/48	Okazaki Bunshi Ken Japan /1994	Research	48	**8600** 12770	. .
103	IBM SP2/43	PIK Potsdam Germany /1994	Research	43	**7725** 11430	. .
104	TMC CM-5E/128	The Angstrom Technology Partnership Tsukuba Japan /1994	Research	128	**7700** 20000	18432 8192
105	TMC CM-5/128	AMEX USA /1993	Industry	128	**7700** 16000	18432 8192
106	TMC CM-5/128	Government USA /1993	Classified	128	**7700** 16000	18432 8192
107	TMC CM-5/128	Institut de Physique du Globe de Paris (IPG) Paris France /1992	Research	128	**7700** 16000	18432 8192
108	TMC CM-5/128	MIT Cambridge USA / .	Research	128	**7700** 16000	18432 8192
109	TMC CM-5/128	Mobil / Technical Center Tulsa USA /1992	Industry Geophysics	128	**7700** 16000	18432 8192
110	TMC CM-5/128	NASA/Ames Research Center/NAS Moffett Field USA /1993	Research	128	**7700** 16000	18432 8192
111	Intel XP/S20	Japan Atomic Energy Research Japan /1994	Research	256	**7600** 12800	16000 4000
112	Intel XP/S20	Okayama University Okayama Japan /1994	Academic	256	**7600** 12800	16000 4000
113	Intel XP/S20	Wright Patterson AFB USA /1994	Research	256	**7600** 12800	16000 4000
114	Hitachi S-3800/180	Central Res. Inst. of Electric Power Ind. Japan /1994	Research	1	**7400** 8000	15680 470
115	Hitachi S-3800/180	Hitachi LTD. Energy Res. Lab. Japan /1993	Vendor Research	1	**7400** 8000	15680 470
116	Hitachi S-3800/180	Meteorological Research Institute Japan /1993	Research Weather	1	**7400** 8000	15680 470
117	Parsytec GC PowerPlus/192	Universitaet Heidelberg - IWR Heidelberg Germany /1995	Academic	192	**7215** 15360	27192 9500
118	Parsytec GC PowerPlus/192	Universitaet Paderborn - PC2 Paderborn Germany /1995	Academic	192	**7215** 15360	27192 9500
119	IBM SP2/40	National Cancer Research Institute Tokyo Japan /1994	Research	40	**7200** 10640	. .
120	IBM SP2/40	UNI-C/Lyngby Denmark /1995	Academic	40	**7200** 10640	. .

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121	Hitachi S-3800/260	Suzuki Motor Japan /1993	Industry Automotive	2	**7100** 8000	. .
122	Cray Y-MP C98/8512	CNRS/IDRIS Orsay France /1993	Research	8	**6850** 7619	. .
123	Cray Y-MP C98/8512	Cray Research Eagan USA / .	Vendor	8	**6850** 7619	. .
124	Cray ympc98/8256	Direction de la Meteorologie Nationale Toulouse France /1994	Research Weather	8	**6850** 7619	. .
125	Cray ympc98/81024	EDS/General Motors USA /1995	Industry Automotive	8	**6850** 7619	. .
126	Cray Y-MP C98/8512	Electricite de France Clamart France /1994	Industry Energy	8	**6850** 7619	. .
127	Cray Y-MP C916/8512	Minnesota Supercomputer Center USA /1994	Academic	8	**6850** 7619	. .
128	Cray Y-MP C916/8256	NASA/Ames Research Center/CCF Moffett Field USA /1993	Research Aerospace	8	**6850** 7619	. .
129	Cray Y-MP C98/8128	UCSD/San Diego Supercomputer Center San Diego USA /1993	Academic	8	**6850** 7619	. .
130	Cray Y-MP C916/8256	US Navy/Fleet Numerical Oceanography Center Monterey USA /1994	Research Weather	8	**6850** 7619	. .
131	IBM SP2/36	Rensselaer Polytechnic Troy USA /1994	Academic	36	**6500** 9570	. .
132	Cray T3D MC64-8	CINECA Bologna Italy /1995	Research	64	**6400** 9600	20736 2368
133	Cray T3D MC64-2	Mitsubishi Electric Corporation Kanagawa Japan /1994	Industry Electronics	64	**6400** 9600	20736 2368
134	Cray T3D MCA64-8	NASA/Lewis Research Center Cleveland USA /1994	Research	64	**6400** 9600	20736 2368
135	Cray T3D MCA64-8	NCAR (National Center for Atmospheric Research) Boulder USA /1994	Research Weather	64	**6400** 9600	20736 2368
136	KSR/SNI KSR2-110	Universitaet Mannheim Mannheim Germany /1995	Academic	110	**6380** 8800	. .
137	Intel XP/S15	NASA/Ames Research Center/NAS Moffett Field USA /1992	Research	208	**6250** 10400	. .
138	Intel XP/S15	NOAA Boulder USA /1994	Research	208	**6250** 10400	. .
139	IBM SP2/34	GMD Germany /1995	Research	34	**6150** 9040	. .
140	Intel XP/S14	Grant Tensor Houston USA /1995	Industry Geophysics	192	**5800** 9600	. .

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N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
141	IBM SP2/32	CINECA Bologna Italy /1995	Research	32	**5800** 8500	18000 4500
142	IBM SP2/32	CNUSC Montpellier France /1995	Academic	32	**5800** 8500	18000 4500
143	IBM SP2/32	China Meterological Administration China /1995	Research	32	**5800** 8500	18000 4500
144	IBM SP2/32	IBM/Watson Research Center Yorktown Heights USA /1993	Vendor	32	**5800** 8500	18000 4500
145	NEC SX-3/41R	Japan Atomic Energy Research Japan /1992	Research	4	**5800** 6400	3584 414
146	NEC SX-3/14R	Osaka University Osaka Japan /1993	Academic	1	**5800** 6400	2816 282
147	NEC SX-3/14R	Toyota Central Research Development Japan /1992	Industry Automotive	1	**5800** 6400	2816 282
148	TMC CM-5/96	Epsilon USA /1993	Industry	96	**5700** 13370	. .
149	TMC CM-5/96	University of California at Berkeley USA / .	Academic	96	**5700** 13370	. .
150	Fujitsu VPP500/4	Fujitsu San Jose USA /1995	Vendor	4	**5600** 6400	7344 1250
151	Fujitsu VPP500/4	IFP (Institute Francais du Petrole) Rueil-Malmaison France /1995	Academic Geophysics	4	**5600** 6400	7344 1250
152	Fujitsu VPP500/4	Toritsu Kagaku Gijutsu University Japan /1993	Academic	4	**5600** 6400	7344 1250
153	Fujitsu VPP500/4	Toyota Motor Company Japan /1994	Industry Automotive	4	**5600** 6400	7344 1250
154	Fujitsu/SNI VPP500/4	Universitaet Aachen Aachen Germany /1993	Academic	4	**5600** 6400	7344 1250
155	Fujitsu/SNI VPP500/4	Universitaet Darmstadt Darmstadt Germany /1994	Academic	4	**5600** 6400	7344 1250
156	IBM SP2/30	CRS4 Cagliari Italy /1995	Research	30	**5450** 7980	. .
157	IBM SP2/30	Shell KSEPL Netherlands /1995	Industry Geophysics	30	**5450** 7980	. .
158	IBM SP2/30	Shell KSLA Netherlands /1995	Industry Geophysics	30	**5450** 7980	. .
159	TMC CM-2/64k	Florida State University Tallahassee USA / .	Academic	2048	**5200** 14000	26624 11000
160	TMC CM-2/64k	SRC USA /1993	Industry	2048	**5200** 14000	26624 11000

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TOP500 **Supercomputers - Worldwide**

N $_{world}$	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
161	Meiko CS-2/224	Lawrence Livermore National Laboratory Livermore USA /1994	Research Energy	224	**5000** 40300	18688 6144
162	Meiko CS-2/128	Universitaet Wien Wien Austria /1994	Academic	128	**5000** 23000	18688 6144
163	Meiko CS-2/64	Lawrence Livermore National Laboratory Livermore USA /1994	Research Energy	64	**5000** 11500	18688 6144
164	TMC CM-200/32k	Government USA /1989	Classified	1024	**5000** 10000	21504 8192
165	TMC CM-200/32k	Minnesota Supercomputer Center USA / .	Academic	1024	**5000** 10000	21504 8192
166	TMC CM-200/32k	Western Geophysical Houston USA /1994	Industry Geophysics	1024	**5000** 10000	21504 8192
167	Digital AlphaServer 8400 5/300	Digital Equipment Corporation Maynard USA /1995	Vendor Benchmarking	12	**5000** 7200	9548 1148
168	NEC SX-3/14	IBM Japan Ltd. Tokyo Japan /1991	Industry Electronics	1	**5000** 5500	3072 384
169	NEC SX-3/22	NEC Systems Laboratories Inc. Houston USA /1991	Research	2	**5000** 5500	3072 384
170	NEC SX-3/22	National Aerospace Laboratory (NLR) Noordoostpolder Netherlands /1992	Research Aerospace	2	**5000** 5500	3072 384
171	NEC SX-3/14	National Institute of Environmental Studies Japan /1992	Research Environment	1	**5000** 5500	3072 384
172	IBM 9076-005 SP1	Argonne Nat. Lab USA /1993	Research	128	**4800** 16000	26000 6000
173	IBM 9076-005 SP1	IBM/Watson Research Center Yorktown Heights USA /1993	Vendor	128	**4800** 16000	26000 6000
174	IBM 9076-004 SP1	Cornell Theory Center USA /1993	Academic	64	**4800** 8000	26000 6000
175	KSR KSR2-80	Pacific Northwest Laboratories/Batelle Richland USA /1994	Research	80	**4770** 6400	. .
176	Parsytec GC PowerPlus/128	Japan Institute of Advanced Technology Japan /1994	Research	128	**4737** 10240	22000 7800
177	Parsytec GC PowerPlus/128	Swedish National Supercomputer Centre Linkoping Sweden /1994	Academic	128	**4737** 10240	22000 7800
178	Parsytec GC PowerPlus/128	Technische Universitaet Chemnitz Chemnitz Germany /1994	Academic	128	**4737** 10240	22000 7800
179	Parsytec GC PowerPlus/128	Universitaet Hamburg-Harburg Hamburg-Harburg Germany /1994	Academic	128	**4737** 10240	22000 7800
180	Cray Y-MP C98/6256	Chrysler Motors Company USA /1995	Industry Automotive	6	**4630** 5715	. .

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TOP500 **Supercomputers - Worldwide**

N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
181	Cray Y-MP C98/6256	NASA/Goddard Space Flight Center Greenbelt USA /1993	Research Weather	6	**4630** 5715	. .
182	Intel XP/S10	KFA Juelich Germany /1994	Research	144	**4450** 7200	. .
183	Intel XP/S10	Lockheed Advanced Development Palmdale USA /1995	Industry Aerospace	144	**4450** 7200	. .
184	Intel XP/S10	Purdue University USA /1994	Academic	144	**4450** 7200	. .
185	IBM SP2/24	CSC (Centre for Sientific Computing) Helsinki Finland /1995	Academic	24	**4400** 6380	. .
186	IBM SP2/24	DKFZ Heidelberg Germany /1995	Research	24	**4400** 6380	. .
187	IBM SP2/24	National Center for High Performance Computing Taiwan /1994	Academic	24	**4400** 6380	. .
188	IBM SP2/24	National Institute of Environmental Studies Japan /1994	Research	24	**4400** 6380	. .
189	IBM SP2/24	UCLA Los Angeles USA /1994	Academic	24	**4400** 6380	. .
190	Intel XP/S10	Hong Kong University of Science and Technology Hong Kong /1994	Academic	140	**4330** 7000	. .
191	Intel XP/S10	Intel SSD Development Centers USA /1992	Vendor	140	**4330** 7000	. .
192	Intel XP/S10	National Security Agency USA /1994	Classified	140	**4330** 7000	. .
193	SGI Power Challenge	MIPS Technologies Inc. - Silicon Graphics Mountain View USA /1994	Vendor Electronics	18	**4142** 5400	2604 570
194	SGI Power Challenge	Silicon Graphics Mountain View USA /1994	Vendor Benchmarking	18	**4142** 5400	2604 570
195	SGI Power Challenge	Silicon Graphics Mountain View USA /1994	Vendor Benchmarking	18	**4142** 5400	2604 570
196	SGI Power Challenge	Silicon Graphics Mountain View USA /1994	Vendor Hardware	18	**4142** 5400	2604 570
197	SGI Power Challenge	Universidad Autonoma Metropolitana Istapalapa Mexico /1994	Academic	18	**4142** 5400	2604 570
198	SGI Power Challenge	Vertex Pharmaceuticals Cambridge USA /1995	Industry Chemistry	18	**4142** 5400	2604 570
199	IBM SP2/22	Dassault Aviation France /1995	Industry Aerospace	22	**4050** 5850	. .
200	IBM SP2/22	Queensland Parallel Supercomputing Facility Brisbane Australia /1994	Academic	22	**4050** 5850	. .

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N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
201	Fujitsu VP2600/10	Fuji Heavy Japan /1990	Industry Heavy Ind.	1	**4009** 5000	. .
202	Fujitsu VP2600/10	Japan Atomic Energy Research Japan /1991	Research	1	**4009** 5000	. .
203	Fujitsu VP2600/10	Japan Atomic Energy Research Japan /1991	Research	1	**4009** 5000	. .
204	Fujitsu VP2600/10E	Kyoto University Kyoto Japan /1995	Academic	1	**4009** 5000	. .
205	Fujitsu VP2600/10	Kyushu University Kyushu Japan /1992	Academic	1	**4009** 5000	. .
206	Fujitsu VP2600/10	NAL (Space Technology) Japan /1992	Research	1	**4009** 5000	. .
207	Fujitsu VP2600/10	Nagoya University Nagoya Japan /1991	Academic	1	**4009** 5000	. .
208	Fujitsu VP2600/10	Reactor Nuclear Fuel Development Japan /1991	Research	1	**4009** 5000	. .
209	Fujitsu VP2600/10	Reactor Nuclear Fuel Development Japan /1991	Research	1	**4009** 5000	. .
210	Fujitsu VP2600/10	Taisei Construction Japan /1992	Industry Construction	1	**4009** 5000	. .
211	Fujitsu/SNI S600/20	Universitaet Aachen Aachen Germany /1991	Academic	1	**4009** 5000	. .
212	Fujitsu/SNI S600/20	Universitaet Karlsruhe Karlsruhe Germany /1990	Academic	1	**4009** 5000	. .
213	KSR KSR2-64	Georgia Institute of Technology USA /1994	Research	64	**3911** 5120	9216 3840
214	KSR KSR2-64	University of Michigan Michigan USA /1994	Academic	64	**3911** 5120	9216 3840
215	KSR KSR2-64	University of Washington Seattle USA /1994	Academic	64	**3911** 5120	9216 3840
216	TMC CM-5/64	AMOCO Tulsa USA / .	Industry Geophysics	64	**3800** 8192	13056 6016
217	TMC CM-5/64	ATR Kyoto Japan / .	Research	64	**3800** 8192	13056 6016
218	TMC CM-5/64	Boston University Boston USA / .	Academic	64	**3800** 8192	13056 6016
219	TMC CM-5/64	GMD Birlinghoven Germany /1993	Research	64	**3800** 8192	13056 6016
220	TMC CM-5/64	Japanese AIST Hokuriku Japan /1993	Research	64	**3800** 8192	13056 6016

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N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
221	TMC CM-5/64	Oregon State University USA / .	Academic	64	**3800** 8192	13056 6016
222	TMC CM-5/64	Real World Computing (RWCP) Tokyo Japan /1992	Classified	64	**3800** 8192	13056 6016
223	TMC CM-5/64	University of Wisconsin USA / .	Academic	64	**3800** 8192	13056 6016
224	IBM SP2/20	Western Geophysical UK /1995	Industry Geophysics	20	**3700** 5320	. .
225	SGI Power Challenge	Advanced Geophysical Englewood USA /1995	Industry Geophysics	16	**3700** 4800	2500 540
226	SGI Power Challenge	Armstrong Labs USA /1994	Classified	16	**3700** 4800	2500 540
227	SGI Power Onyx	CSC (Centre for Sientific Computing) Helsinki Finland /1995	Academic	16	**3700** 4800	2500 540
228	SGI Power Challenge	Cornell Ithaca USA /1995	Academic	16	**3700** 4800	2500 540
229	SGI Power Challenge	EMBL Heidelberg Germany /1994	Research	16	**3700** 4800	2500 540
230	SGI Power Challenge	MIPS Technologies Inc. - Silicon Graphics Mountain View USA /1994	Vendor Electronics	16	**3700** 4800	2500 540
231	SGI Power Challenge	NCAR (National Center for Atmospheric Research) Boulder USA /1995	Research	16	**3700** 4800	2500 540
232	SGI Power Challenge	NCSA Urbana-Champaign USA /1994	Research	16	**3700** 4800	2500 540
233	SGI Power Challenge	Pratt Whitney Canada /1995	Industry Aerospace	16	**3700** 4800	2500 540
234	SGI Power Challenge	Silicon Graphics Singapore /1995	Vendor Benchmarking	16	**3700** 4800	2500 540
235	SGI Power Challenge	Silicon Graphics Cortaillod Switzerland /1995	Vendor Benchmarking	16	**3700** 4800	2500 540
236	SGI Power Challenge	Silicon Graphics Cortaillod Switzerland /1995	Vendor Benchmarking	16	**3700** 4800	2500 540
237	SGI Power Challenge	Silicon Graphics Cortaillod Switzerland /1995	Vendor Benchmarking	16	**3700** 4800	2500 540
238	SGI Power Challenge	Silicon Graphics Cortaillod Switzerland /1995	Vendor Benchmarking	16	**3700** 4800	2500 540
239	SGI Power Challenge	Silicon Graphics Detroit USA /1995	Vendor Benchmarking	16	**3700** 4800	2500 540
240	SGI Power Challenge	Silicon Graphics Houston USA /1994	Vendor	16	**3700** 4800	2500 540

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N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
241	SGI Power Challenge	Silicon Graphics Hudson USA /1994	Vendor	16	**3700** 4800	2500 540
242	SGI Power Challenge	Silicon Graphics Mountain View USA /1994	Vendor	16	**3700** 4800	2500 540
243	SGI Power Challenge	Silicon Graphics Mountain View USA /1994	Vendor	16	**3700** 4800	2500 540
244	SGI Power Challenge	Silicon Graphics Mountain View USA /1994	Vendor Software	16	**3700** 4800	2500 540
245	SGI Power Challenge	Silicon Graphics Mountain View USA /1994	Vendor Benchmarking	16	**3700** 4800	2500 540
246	SGI Power Challenge	Silicon Graphics Mountain View USA /1995	Vendor Software	16	**3700** 4800	2500 540
247	SGI Power Challenge	Silicon Graphics Mountain View USA /1995	Vendor Software	16	**3700** 4800	2500 540
248	SGI Power Challenge	Silicon Graphics Mountain View USA /1995	Vendor Software	16	**3700** 4800	2500 540
249	SGI Power Challenge	Silicon Graphics Mountain View USA /1995	Vendor Software	16	**3700** 4800	2500 540
250	SGI Power Challenge	Silicon Graphics Mountain View USA /1995	Vendor Software	16	**3700** 4800	2500 540
251	SGI Power Challenge	Silicon Graphics Mountain View USA /1995	Vendor Software	16	**3700** 4800	2500 540
252	SGI Power Challenge	Silicon Graphics Mountain View USA /1995	Vendor Software	16	**3700** 4800	2500 540
253	SGI Power Challenge	Silicon Graphics Mountain View USA /1995	Vendor Software	16	**3700** 4800	2500 540
254	SGI Power Challenge	Silicon Graphics Mountain View USA /1995	Vendor Hardware	16	**3700** 4800	2500 540
255	SGI Power Challenge	Silicon Graphics Tokyo Japan /1994	Vendor Benchmarking	16	**3700** 4800	2500 540
256	SGI Power Challenge	Texas AM University College Station USA /1994	Academic	16	**3700** 4800	2500 540
257	SGI Power Challenge	UCLA Los Angeles USA /1994	Academic	16	**3700** 4800	2500 540
258	SGI Power Challenge	UNI-C/Aarhus Copenhagen Denmark /1995	Academic	16	**3700** 4800	2500 540
259	SGI/SNI Power Challenge	Universitaet Koeln Koeln Germany /1995	Academic	16	**3700** 4800	2500 540
260	SGI Power Challenge	Western Geophysical Houston USA /1995	Industry Geophysics	16	**3700** 4800	2500 540

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TOP500 **Supercomputers - Worldwide**

N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
261	Parsytec GC PowerPlus/96	Technische Universitaet Magdeburg Magdeburg Germany /1995	Academic	96	**3674** 7680	. .
262	Fujitsu/SNI S400/40	Universitaet Darmstadt Darmstadt Germany /1991	Academic	2	**3624** 5000	10239 .
263	Fujitsu/SNI S400/40	Universitaet Hannover Hannover Germany /1991	Academic	2	**3624** 5000	10239 .
264	IBM SP2/19	NIST - US Department of Commerce Gaithersburg USA /1994	Research	19	**3525** 5050	. .
265	Intel XP/S8	National Security Agency USA /1994	Classified	110	**3430** 5500	. .
266	KSR KSR1-256	US Army Research Laboratory Aberdeen USA /1993	Research	256	**3380** 10240	10240 1824
267	KSR KSR1-128	University of Cincinati USA /1993	Academic	128	**3380** 5120	10240 1824
268	Cray Y-MP T94/4128	Cray Research Eagan USA /1995	Vendor	4	**3275** 7200	. .
269	Cray Y-MP T94/4128	Government Colorado Springs USA /1995	Classified	4	**3275** 7200	. .
270	Cray Y-MP T94/4128	Government Washington DC USA /1995	Classified	4	**3275** 7200	. .
271	Cray Y-MP C94A/4128	Bristol-Myers Squibb Institute USA /1994	Industry Chemistry	4	**3275** 3810	. .
272	Cray Y-MP C94/4256	CEA/Centre d'Etudes Nucleaires Grenoble France /1994	Research Energy	4	**3275** 3810	. .
273	Cray Y-MP C94/4256	CSC (Center for Scientific Computing) Espoo Finland /1995	Academic	4	**3275** 3810	. .
274	Cray Y-MP C94A/4128	Citroen Peugeot Velizy France /1994	Industry Automotive	4	**3275** 3810	. .
275	Cray Y-MP C94/4256	Compagnie Generale de Geophysique (CGG) Massy France /1995	Industry Geophysics	4	**3275** 3810	. .
276	Cray Y-MP C94/4128	Du Pont De Nemours Company USA /1994	Industry Chemistry	4	**3275** 3810	. .
277	Cray Y-MP C94/4256	EDS/ Adam Opel AG Ruesselsheim Germany /1995	Industry Automotive	4	**3275** 3810	. .
278	Cray Y-MP C94A/4128	Instituto National de Meteorologia (INM) Spain /1994	Research Weather	4	**3275** 3810	. .
279	Cray Y-MP C98/4256	SARA (Stichting Academisch Rekencentrum) Amsterdam Netherlands /1994	Academic	4	**3275** 3810	. .
280	Cray Y-MP C94/41024	Universitaet Stuttgart Stuttgart Germany /1994	Research	4	**3275** 3810	. .

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N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
281	Cray Y-MP C94/4256	debis Stuttgart Germany /1994	Industry Automotive	4	**3275** 3810	. .
282	Intel XP/S7	ETH Zuerich Switzerland /1994	Academic	103	**3210** 5150	. .
283	Intel XP/S7	University of Bergen Bergen Norway /1994	Academic	103	**3210** 5150	. .
284	SGI Power Challenge	BMW AG Muenchen Germany /1994	Industry Automotive	14	**3203** 4200	2000 470
285	SGI/SNI Power Challenge	FU Berlin Berlin Germany /1994	Academic	14	**3203** 4200	2000 470
286	SGI Power Challenge	Technical University Eindhoven Netherlands /1994	Academic	14	**3203** 4200	2000 470
287	SGI Power Challenge	Texaco Houston USA /1995	Industry Geophysics	14	**3203** 4200	2000 470
288	SGI Power Challenge	University of Athens Athen Greece /1994	Academic	14	**3203** 4200	2000 470
289	SGI Power Challenge	University of Calgary Calgary Canada /1994	Academic	14	**3203** 4200	2000 470
290	Cray T3D MC32-8	Chrysler Motors Company USA /1994	Industry Automotive	32	**3200** 4800	14592 1616
291	Cray T3D MC32-2	Cray Research Eagan USA /1995	Vendor	32	**3200** 4800	14592 1616
292	Cray T3D MCA32-8	DKRZ Hamburg Germany /1994	Research Weather	32	**3200** 4800	14592 1616
293	Cray T3D MCA32-8	North Carolina Supercomputer Center USA /1994	Academic	32	**3200** 4800	14592 1616
294	Cray T3D MCA32-8	Ohio Supercomputer Center Columbus USA /1994	Academic	32	**3200** 4800	14592 1616
295	Cray T3D MC32-8	Universitaet Stuttgart Stuttgart Germany /1994	Research	32	**3200** 4800	14592 1616
296	IBM SP2/16	CEA Saclay France /1995	Research	16	**3000** 4300	13000 2600
297	IBM SP2/16	Catholic University of Leuven Belgium /1994	Academic	16	**3000** 4300	13000 2600
298	IBM SP2/16	Daresbury Laboratory UK /1995	Research Chemistry	16	**3000** 4300	13000 2600
299	IBM SP2/16	European Space Agency (ESTEC) Noordwijk Netherlands /1994	Research Aerospace	16	**3000** 4300	13000 2600
300	IBM SP2/16	IBM Redwood City USA /1994	Vendor	16	**3000** 4300	13000 2600

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TOP500 **Supercomputers - Worldwide**

N $_{world}$	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
301	IBM SP2/16	IBM Rome Italy /1995	Vendor Software	16	**3000** 4300	13000 2600
302	IBM SP2/16	IN2P3 France /1995	Research	16	**3000** 4300	13000 2600
303	IBM SP2/16	Maui High-Performance Computing Center (MHPCC) USA /1994	Research	16	**3000** 4300	13000 2600
304	IBM SP2/16	Oak Ridge National Laboratory Oakk Ridge USA /1994	Research	16	**3000** 4300	13000 2600
305	IBM SP2/16	Princeton University Princeton USA /1994	Academic	16	**3000** 4300	13000 2600
306	IBM SP2/16	Sherbrooke University Sherbrooke Canada /1994	Academic	16	**3000** 4300	13000 2600
307	IBM SP2/16	Technische Universitaet Cottbus Cottbus Germany /1995	Academic	16	**3000** 4300	13000 2600
308	IBM SP2/16	University of Maryland USA /1994	Academic	16	**3000** 4300	13000 2600
309	IBM SP2/16	University of Oslo Norway /1995	Academic	16	**3000** 4300	13000 2600
310	IBM SP2/16	University of Southampton Southampton UK /1995	Academic	16	**3000** 4300	13000 2600
311	IBM SP2/16	University of Southern California Los Angeles USA /1994	Academic	16	**3000** 4300	13000 2600
312	IBM SP2/16	University of Wisconsin USA /1994	Academic	16	**3000** 4300	13000 2600
313	IBM SP2/16	University of Zurich Zurich Switzerland /1995	Academic	16	**3000** 4300	13000 2600
314	NEC SX-3/12R	Institute of Space Science (INPE) Brazil /1994	Research Weather	1	**2900** 3200	2048 174
315	NEC SX-3/12R	NEC Scientific Information Systems Dev. (NSIS) Japan /1992	Research	1	**2900** 3200	2048 174
316	NEC SX-3/21R	Obayashi Corporation Japan /1992	Industry	2	**2900** 3200	2560 257
317	SGI Power Challenge	Chrysler Motors Company Detroit USA /1995	Industry Automotive	12	**2874** 3600	2000 450
318	SGI Power Challenge	General Motors Detroit USA /1995	Industry Automotive	12	**2874** 3600	2000 450
319	SGI Power Challenge	Jackson State University Jackson USA /1994	Academic Chemistry	12	**2874** 3600	2000 450
320	SGI Power Challenge	Lawrence Livermore National Laboratory Livermore USA /1995	Research Energy	12	**2874** 3600	2000 450

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N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
321	SGI Power Challenge	Pacific Northwest Lab. Hanford USA /1995	Research	12	**2874** 3600	2000 450
322	SGI Power Challenge	Pacific Northwest Lab. Hanford USA /1995	Research	12	**2874** 3600	2000 450
323	SGI Power Onyx	Silicon Graphics Mountain View USA /1994	Vendor	12	**2874** 3600	2000 450
324	SGI Power Challenge	US Army Research Laboratory Aberdeen USA /1995	Research	12	**2874** 3600	2000 450
325	SGI Power Challenge	US Army Research Laboratory Aberdeen USA /1995	Research	12	**2874** 3600	2000 450
326	SGI Power Challenge	US Army Research Laboratory Aberdeen USA /1995	Research	12	**2874** 3600	2000 450
327	SGI Power Challenge	US Army Research Laboratory Aberdeen USA /1995	Research	12	**2874** 3600	2000 450
328	SGI Power Challenge	US Army Research Laboratory Aberdeen USA /1995	Research	12	**2874** 3600	2000 450
329	SGI Power Challenge	US Army Research Laboratory Aberdeen USA /1995	Research	12	**2874** 3600	2000 450
330	SGI Power Challenge	US Army Research Laboratory Aberdeen USA /1995	Research	12	**2874** 3600	2000 450
331	SGI Power Challenge	US Army Research Laboratory Aberdeen USA /1995	Research	12	**2874** 3600	2000 450
332	SGI Power Challenge	University of Minnesota Minneapolis USA /1995	Academic	12	**2874** 3600	2000 450
333	SGI Power Challenge	Volvo Gothenberg Sweden /1995	Industry Automotive	12	**2874** 3600	2000 450
334	IBM SP2/15	University of Geneva Geneva Switzerland /1995	Academic	15	**2810** 3990	. .
335	Meiko CS-2/32	CERFACS Toulouse France /1994	Research	32	**2800** 5800	13824 3488
336	Meiko CS-2/32	CERN Geneva Switzerland /1994	Research	32	**2800** 5800	13824 3488
337	IBM SP2/14	Argonne Nat. Lab - DIS USA /1994	Research	14	**2625** 3720	. .
338	IBM SP2/14	Federal Home Loan Mortgage Corp. USA /1995	Industry	14	**2625** 3720	. .
339	IBM SP2/14	GSI Darmstadt Germany /1995	Research	14	**2625** 3720	. .
340	IBM SP2/14	KFA Juelich Germany /1995	Research	14	**2625** 3720	. .

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N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
341	IBM SP2/14	UCLA Los Angeles USA /1994	Academic	14	**2625** 3720	. .
342	IBM SP2/14	University of Liege Belgium /1995	Academic	14	**2625** 3720	. .
343	Parsytec GC PowerPlus/64	CRS4 Cagliari Italy /1994	Research	64	**2610** 5120	15000 5000
344	Parsytec GC PowerPlus/64	University of Bergen Norway /1994	Academic	64	**2610** 5120	15000 5000
345	Intel iPSC/860	Alliant Techsystems Inc. USA /1990	Industry Biochemistry	128	**2600** 5120	12000 4500
346	Intel iPSC/860	Grant Tensor Houston USA /1991	Industry Geophysics	128	**2600** 5120	12000 4500
347	Intel iPSC/860	Grant Tensor London UK /1991	Industry Geophysics	128	**2600** 5120	12000 4500
348	Intel iPSC/860	Lockheed Advanced Development Palmdale USA /1992	Industry Aerospace	128	**2600** 5120	12000 4500
349	Intel iPSC/860	NASA/Ames Research Center/NAS Moffett Field USA /1990	Research	128	**2600** 5120	12000 4500
350	Intel iPSC/860	NIH Frederick USA /1990	Research	128	**2600** 5120	12000 4500
351	Intel iPSC/860	ONERA Chatillon France /1991	Research Aerospace	128	**2600** 5120	12000 4500
352	Intel iPSC/860	Oak Ridge National Laboratory Oak Ridge USA /1989	Research	128	**2600** 5120	12000 4500
353	KSR KSR1-96	ATR Japan /1993	Industry	96	**2535** 3840	. .
354	KSR KSR1-96	Florida State University Tallahassee USA /1993	Academic	96	**2535** 3840	. .
355	Convex C4/XA-4	Ford Dearborn USA /1994	Industry Automotive	4	**2531** 3240	. .
356	TMC CM-200/16k	INRIA - Sophia Antipolis Rennes France /1992	Research	512	**2400** 5000	14848 5632
357	TMC CM-200/16k	KTH - Royal Institute of Technology Stockholm Sweden /1994	Academic	512	**2400** 5000	14848 5632
358	TMC CM-200/16k	US Naval Research Laboratory Washington D.C. USA /1987	Research	512	**2400** 5000	14848 5632
359	TMC CM-200/16k	University of Edinburgh Edinburgh UK / .	Academic	512	**2400** 5000	14848 5632
360	IBM 9076-003 SP1	CNRS/INRIA Grenoble France /1995	Academic	32	**2400** 4000	16000 4000

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N $_{world}$	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
361	IBM 9076-003 SP1	Pennsylvania State University USA /1993	Academic	32	**2400** 4000	16000 4000
362	IBM 9076-003 SP1	University of Michigan Michigan USA /1994	Academic	32	**2400** 4000	16000 4000
363	Digital AlphaServer 8400 5/300	Universitaet Mainz Mainz Germany /1995	Academic	6	**2400** 3600	9640 540
364	SGI Power Challenge	Bayer AG Wuppertal Germany /1995	Industry Chemistry	10	**2395** 3000	2000 470
365	SGI Power Challenge	Missle Space Intelligence Center Huntsville USA /1994	Classified Defense	10	**2395** 3000	2000 470
366	SGI Power Challenge	National Supercomputing Institute Taiwan /1995	Research	10	**2395** 3000	2000 470
367	SGI Power Challenge	Silicon Graphics Huntsville USA /1994	Vendor Benchmarking	10	**2395** 3000	2000 470
368	SGI Power Challenge	Silicon Graphics Mississauga Canada /1994	Vendor Benchmarking	10	**2395** 3000	2000 470
369	SGI/SNI Power Challenge	Universitaet Kaiserslautern Kaiserslautern Germany /1994	Academic	10	**2395** 3000	2000 470
370	SGI/SNI Power Challenge	Universitaet Kiel Kiel Germany /1995	Academic	10	**2395** 3000	2000 470
371	SGI/SNI Power Challenge	Universitaet Konstanz Konstanz Germany /1995	Academic	10	**2395** 3000	2000 470
372	SGI Power Challenge	University of Indiana Bloomington USA /1994	Academic	10	**2395** 3000	2000 470
373	SGI Power Challenge	Unocal Houston USA /1995	Industry Geophysics	10	**2395** 3000	2000 470
374	Intel XP/S5	NAWC USA /1994	Research	72	**2250** 3600	. .
375	Intel XP/S5	Universitaet Stuttgart Stuttgart Germany /1992	Academic	72	**2250** 3600	. .
376	IBM SP2/12	Argonne Nat. Lab USA /1994	Research MultiMedia	12	**2250** 3190	. .
377	IBM SP2/12	Centro de Supercomputacion de Catalunya Barcelona Spain /1995	Academic	12	**2250** 3190	. .
378	IBM SP2/12	IBM Bedfont Lakes UK /1995	Vendor Software	12	**2250** 3190	. .
379	IBM SP2/12	MIT Cambridge USA /1994	Research	12	**2250** 3190	. .
380	IBM SP2/12	Shell Oil Corporation USA /1994	Industry Geophysics	12	**2250** 3190	. .

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N $_{world}$	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
381	IBM SP2/12	Syracuse University Syracuse USA / .	Academic	12	**2250** 3190	. .
382	IBM SP2/12	University of Pennsylvania USA /1994	Academic	12	**2250** 3190	. .
383	Intel XP/S5	ONERA Chatillon France /1994	Research Aerospace	71	**2215** 3550	. .
384	Cray CRAY-2s/8-128	Lawrence Livermore National Laboratory Livermore USA /1990	Research Energy	8	**2171** 3902	. .
385	Cray Y-MP J916/16-2048	AMOCO Canada /1995	Industry Geophysics	16	**2170** 3200	. .
386	Cray Y-MP J916/16-4096	Aerospatial Toulouse France /1995	Industry Aerospace	16	**2170** 3200	. .
387	Cray Y-MP J916/16-4096	Cray Research Eagan USA /1995	Vendor	16	**2170** 3200	. .
388	Cray Y-MP J916/16-2048	DLR Germany /1995	Research Aerospace	16	**2170** 3200	. .
389	Cray Y-MP J916/16-4096	DOE/National Security Agency USA /1995	Classified	16	**2170** 3200	. .
390	Cray Y-MP J916/16-4096	ETH Zuerich Switzerland /1995	Academic	16	**2170** 3200	. .
391	Cray Y-MP J916/16-4096	Forschungszentrum Karlsruhe Karlsruhe Germany /1995	Academic Aerospace	16	**2170** 3200	. .
392	Cray Y-MP J916/16-4096	Government USA /1995	Classified	16	**2170** 3200	. .
393	Cray Y-MP J916/16-2048	NCAR (National Center for Atmospheric Research) Boulder USA /1995	Research Weather	16	**2170** 3200	. .
394	Cray Y-MP J916/16-2048	NOAA/NMC USA /1995	Research Weather	16	**2170** 3200	. .
395	Cray Y-MP J932/16-2048	University Groningen Groningen Netherlands /1995	Academic	16	**2170** 3200	. .
396	Cray Y-MP8E/8256	Arabian American Oil Company Saudi Arabia/1991	Industry Geophysics	8	**2144** 2667	. .
397	Cray Y-MP8/864	Atomic Weapons Establishment Aldermaston UK / .	Classified	8	**2144** 2667	. .
398	Cray Y-MP8/8128	CEA/Centre d'Etudes Limeil France /1991	Research Energy	8	**2144** 2667	. .
399	Cray Y-MP8/864	City Polytechnic of Hong Kong Hong Kong /1994	Academic	8	**2144** 2667	. .
400	Cray Y-MP8/8128	Cray Research Eagan USA / .	Vendor	8	**2144** 2667	. .

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N $_{world}$	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
401	Cray Y-MP8/8256	Cray Research Eagan USA / .	Vendor	8	**2144** 2667	. .
402	Cray Y-MP8/8128	DOD/CEWES Vicksburg USA /1993	Research Mechanics	8	**2144** 2667	. .
403	Cray Y-MP8/864	DOE/Bettis Atomic Power Laboratory USA /1990	Research	8	**2144** 2667	. .
404	Cray Y-MP8/864	DOE/Knolls Atomic Power Laboratory USA /1990	Research	8	**2144** 2667	. .
405	Cray Y-MP8/8256	DOE/National Security Agency USA / .	Classified	8	**2144** 2667	. .
406	Cray Y-MP8/864	KFA Juelich Germany /1993	Research	8	**2144** 2667	. .
407	Cray Y-MP8/8128	Lawrence Livermore National Laboratory Livermore USA /1991	Research	8	**2144** 2667	. .
408	Cray Y-MP8/864	Lawrence Livermore National Laboratory Livermore USA /1992	Research	8	**2144** 2667	. .
409	Cray Y-MP8/8128	Leibniz Rechenzentrum Muenchen Germany /1992	Academic	8	**2144** 2667	. .
410	Cray Y-MP8/8128	Los Alamos National Laboratory Los Alamos USA /1992	Research Energy	8	**2144** 2667	. .
411	Cray Y-MP8/864	Los Alamos National Laboratory Los Alamos USA /1992	Research Energy	8	**2144** 2667	. .
412	Cray Y-MP8I/8128	Merck Co USA /1995	Industry Chemistry	8	**2144** 2667	. .
413	Cray Y-MP8E/8256	NASA/Langley Research Center Hampton USA /1992	Research	8	**2144** 2667	. .
414	Cray Y-MP8E/8128	NASA/Lewis Research Center Cleveland USA /1994	Research	8	**2144** 2667	. .
415	Cray Y-MP8I/8128	NASA/Marshall Space Flight Center USA /1995	Research Aerospace	8	**2144** 2667	. .
416	Cray Y-MP8/864	NCAR (National Center for Atmospheric Research) Boulder USA /1990	Research Weather	8	**2144** 2667	. .
417	Cray Y-MP8I/864	NCAR (National Center for Atmospheric Research) Boulder USA /1995	Research Weather	8	**2144** 2667	. .
418	Cray Y-MP8/864	NOAA Suitland USA /1993	Research Weather	8	**2144** 2667	. .
419	Cray Y-MP8/864	NOAA/GFDL USA /1994	Research Weather	8	**2144** 2667	. .
420	Cray Y-MP8/8128	National Cancer Institute USA /1991	Research Chemistry	8	**2144** 2667	. .

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N $_{world}$	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
421	Cray Y-MP8E/8128	Navy POPS Supercomputing Facility Saint Louis USA / .	Research Weather	8	**2144** 2667	. .
422	Cray Y-MP8/864	Ohio Supercomputer Center Columbus USA /1989	Academic	8	**2144** 2667	. .
423	Cray Y-MP8I/8128	Rutherford Appleton Laboratory UK /1992	Research	8	**2144** 2667	. .
424	Cray Y-MP8/8128	US Naval Oceanographic Command Bay Saint Louis USA /1991	Research Weather	8	**2144** 2667	. .
425	Cray Y-MP8/864	University of Texas Austin USA /1990	Academic	8	**2144** 2667	. .
426	Cray Y-MP8/8128	VW (Volkswagen AG) Wolfsburg Germany /1995	Industry Automotive	8	**2144** 2667	. .
427	Fujitsu VPX240/10	CESGA Sant. de Compostella Spain /1992	Academic	1	**2110** 2500	. .
428	Fujitsu VPX240/10	Fuji Denki Kagaku Japan /1994	Industry Chemistry	1	**2110** 2500	. .
429	Fujitsu VPX240/20	GECO-PRAKLA Houston USA /1993	Industry Geophysics	1	**2110** 2500	. .
430	Fujitsu VPX240/10	High Performance Computing Center Calgary Canada /1992	Research	1	**2110** 2500	. .
431	Fujitsu VPX240/10	University of Manchester Manchester UK /1993	Academic	1	**2110** 2500	. .
432	Intel XP/S5	Boeing Seattle USA /1992	Industry Aerospace	66	**2060** 3300	8000 .
433	Intel XP/S5	Intel CAD USA /1994	Vendor	66	**2060** 3300	8000 .
434	Intel XP/S5	Intel SSD Development Centers USA /1993	Vendor	66	**2060** 3300	8000 .
435	Intel XP/S5	Intel SSD Development Centers USA /1993	Vendor	66	**2060** 3300	8000 .
436	Intel XP/S5	Intel SSD Development Centers Munich Germany /1994	Vendor	66	**2060** 3300	8000 .
437	Intel XP/S5	Mitsubishi Electric Corporation Kanagawa Japan /1994	Industry Electronics	66	**2060** 3300	8000 .
438	Intel XP/S5	NASA/Langley Research Center Hampton USA /1992	Research	66	**2060** 3300	8000 .
439	Intel XP/S5	Oak Ridge National Laboratory Oak Ridge USA / .	Research	66	**2060** 3300	8000 .
440	Intel XP/S5	Prudential Bache Securities New York USA /1993	Industry	66	**2060** 3300	8000 .

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N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
441	Intel XP/S5	Real World Computing (RWC) Tokyo Japan /1993	Classified	66	**2060** 3300	8000 .
442	Intel XP/S5	Tokyo University Tokyo Japan /1994	Academic	66	**2060** 3300	8000 .
443	IBM SP2/11	CEA/CESTA Bord. France /1995	Research	11	**2060** 2920	. .
444	IBM SP2/11	University of Texas USA /1994	Academic	11	**2060** 2920	. .
445	KSR KSR1-72	INRIA - Sophia Antipolis Rennes France /1994	Research	72	**2030** 2880	. .
446	Cray Y-MP J916/14-1024	Centre Cyceron Caen France /1995	Research	14	**1987** 2800	. .
447	Meiko CS-2/22	University of Edinburgh Edinburgh UK /1994	Academic	22	**1985** 3950	. .
448	SGI Power Challenge	Abott Labs Chicago USA /1995	Industry Chemistry	8	**1955** 2400	1900 360
449	SGI Power Challenge	BASF Ludwigshafen Germany /1994	Industry Chemistry	8	**1955** 2400	1900 360
450	SGI Power Challenge	BMW AG Muenchen Germany /1995	Industry Automotive	8	**1955** 2400	1900 360
451	SGI Power Challenge	BMW AG/ Rolls-Royce Dahlewitz Germany /1994	Industry Aerospace	8	**1955** 2400	1900 360
452	SGI Power Challenge	Bayer AG Leverkusen Germany /1994	Industry Chemistry	8	**1955** 2400	1900 360
453	SGI Power Challenge	Bayer AG Mannheim Germany /1994	Industry Chemistry	8	**1955** 2400	1900 360
454	SGI Power Challenge	Bristol-Myers Squibb USA /1995	Industry Chemistry	8	**1955** 2400	1900 360
455	SGI Power Challenge	Bristol-Myers Squibb USA /1995	Industry Chemistry	8	**1955** 2400	1900 360
456	SGI Power Challenge	Bristol-Myers Squibb USA /1995	Industry Chemistry	8	**1955** 2400	1900 360
457	SGI Power Challenge	CERCA Montreal Canada /1994	Research	8	**1955** 2400	1900 360
458	SGI Power Challenge	Centre Etude Nucleaire Grenoble France /1995	Research	8	**1955** 2400	1900 360
459	SGI Power Challenge	Coleman Research Huntsville USA /1995	Research	8	**1955** 2400	1900 360
460	SGI/SNI Power Challenge	DLR Goettingen Germany /1995	Research Aerospace	8	**1955** 2400	1900 360

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N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
461	SGI/SNI Power Challenge	DLR Oberpfaffenhofen Germany /1995	Research Weather	8	**1955** 2400	1900 360
462	SGI Power Challenge	Direction Construction Toulon France /1994	Classified Defense	8	**1955** 2400	1900 360
463	SGI Power Challenge	Du Pont Merck Wilmington USA /1995	Industry Chemistry	8	**1955** 2400	1900 360
464	SGI Power Challenge	Ford Detroit USA /1995	Industry Automotive	8	**1955** 2400	1900 360
465	SGI Power Challenge	Harvard Medical School Cambridge USA /1995	Research Medicine	8	**1955** 2400	1900 360
466	SGI Power Onyx	Hong Kong University of Science and Technology Hong Kong Hong Kong /1994	Academic	8	**1955** 2400	1900 360
467	SGI Power Challenge	Institute for Bioorganic Chemistry Pozan Poland /1995	Research Chemistry	8	**1955** 2400	1900 360
468	SGI Power Challenge	Karmann Germany /1995	Industry Construction	8	**1955** 2400	1900 360
469	SGI Power Challenge	MIPS Technologies Inc. - Silicon Graphics Mountain View USA /1994	Vendor Electronics	8	**1955** 2400	1900 360
470	SGI Power Challenge	Mitsubishi Research Inst. K. K. Tokyo Japan /1994	Industry Research	8	**1955** 2400	1900 360
471	SGI Power Challenge	Mobil Dallas USA /1994	Industry Geophysics	8	**1955** 2400	1900 360
472	SGI Power Challenge	Motorola Ft. Lauderdale USA /1995	Industry Electronics	8	**1955** 2400	1900 360
473	SGI Power Challenge	NCSA Urbana-Champaign USA /1995	Research	8	**1955** 2400	1900 360
474	SGI Power Challenge	NCSA Urbana-Champaign USA /1995	Research	8	**1955** 2400	1900 360
475	SGI Power Challenge	NCSA Urbana-Champaign USA /1995	Research	8	**1955** 2400	1900 360
476	SGI Power Challenge	NCSA Urbana-Champaign USA /1995	Research	8	**1955** 2400	1900 360
477	SGI Power Challenge	Princeton University Princeton USA /1995	Academic	8	**1955** 2400	1900 360
478	SGI Power Challenge	Sandia National Labs Albuquerque USA /1995	Research	8	**1955** 2400	1900 360
479	SGI Power Challenge	Sandia National Labs Albuquerque USA /1995	Research	8	**1955** 2400	1900 360
480	SGI Power Challenge	Sandia National Labs Albuquerque USA /1995	Research	8	**1955** 2400	1900 360

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TOP500 **Supercomputers - Worldwide**

N *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	**Rmax** R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
481	SGI Power Challenge	Silicon Graphics Melbourne Australia /1995	Vendor Benchmarking	8	**1955** 2400	1900 360
482	SGI Power Challenge	Statoil Trondheim Norway /1995	Industry Geophysics	8	**1955** 2400	1900 360
483	SGI Power Challenge	The Aeronautical Res. Inst. of Sweden Bromma Sweden /1994	Research CFD	8	**1955** 2400	1900 360
484	SGI Power Challenge	The Genetics Institute Cambridge USA /1995	Research Chemistry	8	**1955** 2400	1900 360
485	SGI Power Challenge	Thomson/EDF France /1994	Industry Energy	8	**1955** 2400	1900 360
486	SGI Power Challenge	US Army Research Laboratory Aberdeen USA /1994	Research	8	**1955** 2400	1900 360
487	SGI Power Challenge	US Naval Research Laboratory Washington D.C. USA /1994	Research	8	**1955** 2400	1900 360
488	SGI Power Onyx	US Naval Research Laboratory Washington D.C. USA /1994	Research	8	**1955** 2400	1900 360
489	SGI Power Onyx	US Naval Research Laboratory Washington D.C. USA /1994	Research Defense	8	**1955** 2400	1900 360
490	SGI Power Challenge	Unilever Port Sunlight UK /1994	Industry Chemistry	8	**1955** 2400	1900 360
491	SGI Power Challenge	Universidad de Guadalajara Guadalajara Mexico /1995	Academic	8	**1955** 2400	1900 360
492	SGI/SNI Power Challenge	Universitaet Stuttgart Stuttgart Germany /1995	Academic Chemistry	8	**1955** 2400	1900 360
493	SGI Power Challenge	University of Delaware Wilmington USA /1995	Academic	8	**1955** 2400	1900 360
494	SGI Power Challenge	University of Oregon Eugene USA /1995	Academic	8	**1955** 2400	1900 360
495	SGI Power Challenge	University of Oregon Eugene USA /1995	Academic	8	**1955** 2400	1900 360
496	SGI Power Challenge	University of Queensland Australia /1995	Academic	8	**1955** 2400	1900 360
497	SGI Power Challenge	University of Utah Salt Lake City USA /1995	Academic	8	**1955** 2400	1900 360
498	SGI Power Challenge	Volvo Gothenberg Sweden /1995	Industry Automotive	8	**1955** 2400	1900 360
499	SGI Power Challenge	Western Atlas Houston USA /1995	Industry Geophysics	8	**1955** 2400	1900 360
500	SGI Power Challenge	Westinghouse Electric Orlando USA /1995	Industry Energy	8	**1955** 2400	1900 360

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4 Statistics on Manufacturers and Continents

As basic statistics of the complete list, we give the number of systems installed with respect to the different manufacturers in the different countries or continents (Table 2) as well as the accumulated R_{max} values (Table 3) and R_{peak} values (Table 4) for those systems. More extensive analyses of the situation and its evolution over time can be found in the TOP500Report 1993 [4] and 1994 [5]. Customized statistics can be obtained by using WWW at http://parallel.rz.uni-mannheim.de/top500/top500.html or http://www.netlib.org/benchmark/top500/top500.html.

Table 2: Number of Systems Installed

TOP500 Statistics — Number of Systems Installed					
	USA/Canada	Europe	Japan	others	Total
SGI	85	34	2	7	128
Cray	79	38	5	3	125
IBM	33	33	3	3	72
Intel	32	8	6	1	47
TMC	28	5	4		37
Fujitsu	3	9	24		36
NEC	3	3	12	1	19
KSR	7	2	1		10
Parsytec		8	1		9
Hitachi			8		8
Meiko	2	4			6
Digital	1	1			2
Convex	1				1
Total	274	145	66	15	500

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Table 3: Installed $\mathbf{R_{max}}$

TOP500 Statistics — Installed R_{max} [Gflop/s]					
	USA/Canada	Europe	Japan	others	Total
SGI	241.9	88.1	5.7	18.1	353.7
Cray	769.8	283.1	59.4	18.0	1130.3
IBM	276.4	148.9	20.2	14.3	459.8
Intel	461.6	22.6	31.4	4.3	519.9
TMC	357.1	18.7	19.1		394.9
Fujitsu	9.8	36.3	582.5		628.6
NEC	48.2	28.2	120.2	2.9	199.5
KSR	25.8	8.4	2.5		36.7
Parsytec		37.5	4.7		42.3
Hitachi			129.3		129.3
Meiko	10.0	12.6			22.6
Digital	5.0	2.4			7.4
Convex	2.5				2.5
Total	2208.2	686.8	975.0	57.5	3927.5

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Table 4: Installed $\mathbf{R_{peak}}$

TOP500 Statistics — Installed R_{peak} [Gflop/s]					
	USA/Canada	Europe	Japan	others	Total
SGI	307.2	111.6	7.2	22.8	448.8
Cray	1038.3	362.1	78.1	20.6	1499.0
IBM	557.9	217.7	29.8	20.7	826.1
Intel	636.2	38.2	52.3	7.0	733.7
TMC	780.9	39.2	44.6		864.7
Fujitsu	11.4	44.2	741.3		796.9
NEC	53.5	31.5	134.1	3.2	222.3
KSR	41.0	11.7	3.8		56.5
Parsytec		79.4	10.2		89.6
Hitachi			144.0		144.0
Meiko	51.8	38.6			90.4
Digital	7.2	3.6			10.8
Convex	3.2				3.2
Total	3488.6	977.7	1245.4	74.3	5785.9

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