TOP500 Supercomputer Sites

Jack J. Dongarra

Computer Science Department
University of Tennessee
Knoxville, TN 37996-1301

and

Mathematical Science Section
Oak Ridge National Laboratory
Oak Ridge, TN 37831-6367

dongarra@cs.utk.edu

Hans W. Meuer

Computing Center
University of Mannheim
D-68131 Mannheim
Germany

meuer@rz.uni-mannheim.de

Erich Strohmaier

Computer Science Department
University of Tennessee
Knoxville, TN 37996-1301

erich@cs.utk.edu

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[1] Dedicated to Dr. Hans-Martin Wacker in honour of his 60th birthday

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[2]
• 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} $N_{1/2}$
161	Cray Y-MP C98/8512	Electricite de France Clamart France /1994	Industry Energy	8	**6850** 7619	. .
162	Cray Y-MP C916/8512	Minnesota Supercomputer Center USA /1994	Academic	8	**6850** 7619	. .
163	Cray Y-MP C916/8256	NASA/Ames Research Center/CCF Moffett Field USA /1993	Research Aerospace	8	**6850** 7619	. .
164	Cray Y-MP C98/8128	UCSD/San Diego Supercomputer Center San Diego USA /1993	Academic	8	**6850** 7619	. .
165	Cray Y-MP C916/8256	US Navy/Fleet Numerical Oceanography Center Monterey USA /1994	Research Weather	8	**6850** 7619	. .
166	IBM SP2/37	GMD Germany /1995	Research	37	**6690** 9860	. .
167	IBM SP2/36	Rensselaer Polytechnic Troy USA /1994	Academic	36	**6500** 9570	. .
168	Cray T3D MC64-8	CINECA Bologna Italy /1995	Research	64	**6400** 9600	20736 2368
169	Cray T3D MC64-2	Mitsubishi Electric Corporation Kanagawa Japan /1994	Industry Electronics	64	**6400** 9600	20736 2368
170	Cray T3D MCA64-8	NASA/Lewis Research Center Cleveland USA /1994	Research	64	**6400** 9600	20736 2368
171	Cray T3D MCA64-8	NCAR (National Center for Atmospheric Research) Boulder USA /1994	Research Weather	64	**6400** 9600	20736 2368
172	IBM SP2/35	Phillips University of Marburg Marburg Germany /1995	Academic	35	**6340** 9330	. .
173	Intel XP/S15	Government Washington DC USA /1995	Classified	208	**6250** 10400	. .
174	Intel XP/S15	NOAA Boulder USA /1994	Research	208	**6250** 10400	. .
175	IBM SP2/33	PCS Inc USA /1995	Industry	33	**5990** 8800	. .
176	Intel XP/S14	Grant Tensor Houston USA /1995	Industry Geophysics	192	**5800** 9600	. .
177	IBM SP2/32	Amerada Hess USA /1994	Industry	32	**5800** 8500	18000 4500
178	IBM SP2/32	CINECA Bologna Italy /1995	Research	32	**5800** 8500	18000 4500
179	IBM SP2/32	CNUSC Montpellier France /1995	Academic	32	**5800** 8500	18000 4500
180	IBM SP2/32	China Meterological Administration China /1995	Research	32	**5800** 8500	18000 4500

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TOP500 Supercomputers - Germany

N *local* *world*	Manufacturer Computer	Installation Site Location/Year	Field of Application	# Proc.	R_{max} R_{peak} [Mflop/s]	N_{max} $N_{1/2}$
1	Cray	ZIB/Konrad Zuse-Zentrum fuer Informationstechnik	Academic	256	**25300**	40960
38	T3D SC256-8/464	Berlin Germany /1995			38000	4918
2	Cray	DKRZ	Research	16	**13700**	10000
62	Y-MP C916/16256	Hamburg Germany /1995	Weather		15238	650
3	Cray	Max-Planck-Gesellschaft MPI	Research	128	**12800**	20736
95	T3D MCA128-8	Munchen Germany /1995			19000	3408
4	IBM	Leibniz Rechenzentrum	Academic	70	**12510**	.
100	SP2/70	Muenchen Germany /1995			18620	.
5	NEC	German Aerospace Laboratory (DLR)	Research	2	**11600**	4352
105	SX-3/24R	Goettingen Germany /1994	Aerospace		13000	516
6	NEC	VW (Volkswagen AG)	Industry	2	**11600**	43
108	SX-3/24R	Wolfsburg Germany /1995	Automotive		13000	516
7	IBM	DLR	Research	60	**10730**	.
112	SP2/60	Koeln Germany /1995			16000	.
8	Parsytec	Universitaet Heidelberg - IWR	Academic	192	**7999**	27192
128	GC PowerPlus/192	Heidelberg Germany /1995			15360	9500
9	Parsytec	Universitaet Paderborn - PC2	Academic	192	**7999**	27192
129	GC PowerPlus/192	Paderborn Germany /1995			15360	9500
10	IBM	PIK	Research	43	**7725**	.
134	SP2/43	Potsdam Germany /1994			11430	.
11	IBM	GMD	Research	37	**6690**	.
166	SP2/37	Germany /1995			9860	.
12	IBM	Phillips University of Marburg	Academic	35	**6340**	.
172	SP2/35	Marburg Germany /1995			9330	.
13	Fujitsu	Universitaet Aachen	Academic	4	**5600**	7344
202	VPP500/4	Aachen Germany /1993			6400	1250
14	Fujitsu	Universitaet Darmstadt	Academic	4	**5600**	7344
203	VPP500/4	Darmstadt Germany /1994			6400	1250
15	Parsytec	Technische Universitaet Chemnitz	Academic	128	**5246**	2200
214	GC PowerPlus/128	Chemnitz Germany /1994			10240	78
16	Parsytec	Universitaet Hamburg-Harburg	Academic	128	**5246**	22000
215	GC PowerPlus/128	Hamburg-Harburg Germany /1994			10240	7800
17	Intel	KFA	Research	144	**4450**	.
243	XP/S10	Juelich Germany /1994			7200	.
18	IBM	DKFZ	Research	24	**4400**	.
248	SP2/24	Heidelberg Germany /1995			6380	.
19	Cray	debis	Industry	3	**4327**	.
257	Y-MP T94/3128	Stuttgart Germany /1995	Automotive		5400	.
20	SGI	BMW AG	Industry	18	**4142**	2604
264	POWER CHALLENGE	Muenchen Germany /1994	Automotive		5400	570

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