
TOP500 Report for Nov 2004

TOP500 Team

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Manufacturer

Manufacturer	Count	Percent	Rmax			Processors		
			Sum (GFlops)	Share	Mean	Sum	Share	Mean
Advanced Computing/Voltaire	1	0.20 %	933	0.08 %	933.00	256	0.06 %	256
Angstrom Microsystems	2	0.40 %	3100	0.27 %	1550.00	1524	0.37 %	762
Appro International	1	0.20 %	923	0.08 %	923.00	288	0.07 %	288
Atipa Technology	4	0.80 %	6736	0.60 %	1684.00	2352	0.58 %	588
Bull SA	1	0.20 %	1131	0.10 %	1131.00	256	0.06 %	256
California Digital Corporation	1	0.20 %	19940	1.77 %	19940.00	4096	1.00 %	4096
Cray Inc.	9	1.80 %	18630	1.65 %	2070.00	5088	1.25 %	565
Dawning	1	0.20 %	8061	0.71 %	8061.00	2560	0.63 %	2560
Dell	14	2.80 %	34124	3.03 %	2437.43	10772	2.64 %	769
Exadron	1	0.20 %	1084	0.10 %	1084.00	256	0.06 %	256
Fujitsu	3	0.60 %	18686	1.66 %	6228.67	5824	1.43 %	1941
Hitachi	6	1.20 %	11380	1.01 %	1896.67	1654	0.40 %	275
Hewlett-Packard	173	34.60 %	236553	20.98 %	1367.36	85600	20.95 %	494
HPTi	1	0.20 %	3337	0.30 %	3337.00	1536	0.38 %	1536
IBM	216	43.20 %	556910	49.39 %	2578.29	221914	54.31 %	1027
IMSc-Netweb-Summation	1	0.20 %	959	0.09 %	959.00	288	0.07 %	288
Intel	1	0.20 %	2379	0.21 %	2379.00	9632	2.36 %	9632
lenovo	2	0.40 %	5490	0.49 %	2745.00	1536	0.38 %	768
Linux Networx	11	2.20 %	33644	2.98 %	3058.55	9833	2.41 %	893
NEC	12	2.40 %	49846	4.42 %	4153.83	7744	1.90 %	645
Promicro	2	0.40 %	2072	0.18 %	1036.00	512	0.13 %	256
Verari Systems	1	0.20 %	1580	0.14 %	1580.00	992	0.24 %	992
Self-made	10	2.00 %	26723	2.37 %	2672.30	8748	2.14 %	874
SGI	20	4.00 %	76129	6.75 %	3806.45	22048	5.40 %	1102
Sun	4	0.80 %	3930	0.35 %	982.50	2232	0.55 %	558

Manufacturer	Count	Percent	Sum (GFlops)	Share	Mean	Sum	Share	Mean
T-platforms	1	0.20 %	2032	0.18 %	2032.00	576	0.14 %	576
Visual Technology	1	0.20 %	1169	0.10 %	1169.00	512	0.13 %	512
All	500	100%	1127481	100%		408629	100%	

Producer Regions

Region	Count	Percent	Rmax			Processors		
			Sum (GFlops)	Share	Mean	Sum	Share	Mean
Eastern Asia	22	4.40 %	75946	6.74 %	3452.09	14006	3.43 %	636
Eastern Europe	1	0.20 %	2032	0.18 %	2032.00	576	0.14 %	576
Global	10	2.00 %	26723	2.37 %	2672.30	8748	2.14 %	874
North America	464	92.80 %	1019606	90.43 %	2197.43	384499	94.09 %	828
South-central Asia	1	0.20 %	959	0.09 %	959.00	288	0.07 %	288
Southern Europe	1	0.20 %	1084	0.10 %	1084.00	256	0.06 %	256
Western Europe	1	0.20 %	1131	0.10 %	1131.00	256	0.06 %	256
All	500	100%	1127481	100%		408629	100%	

Continents

Continents	Count	Percent	Rmax			Processors		
			Sum (GFlops)	Share	Mean	Sum	Share	Mean
Africa	3	0.60 %	3389	0.30 %	1129.67	896	0.22 %	298
Americas	283	56.60 %	718876	63.76 %	2540.20	278271	68.10 %	983
Asia	79	15.80 %	174832	15.51 %	2213.06	47766	11.69 %	604
Europe	128	25.60 %	219942	19.51 %	1718.30	77920	19.07 %	608
Oceania	7	1.40 %	10442	0.93 %	1491.71	3776	0.92 %	539
All	500	100%	1127481	100%		408629	100%	

Countries

Country	Count	Percent	Rmax			Processors		
			Sum (GFlops)	Share	Mean	Sum	Share	Mean
Australia	5	1.00 %	6390	0.57 %	1278.00	1520	0.37 %	304
Belarus	1	0.20 %	2032	0.18 %	2032.00	576	0.14 %	576
Brazil	3	0.60 %	6617	0.59 %	2205.67	1876	0.46 %	625
Canada	7	1.40 %	15830	1.40 %	2261.43	5760	1.41 %	822
China	17	3.40 %	31937	2.83 %	1878.65	10644	2.60 %	626
Finland	1	0.20 %	1170	0.10 %	1170.00	512	0.13 %	512
France	15	3.00 %	21316	1.89 %	1421.07	8632	2.11 %	575
Germany	35	7.00 %	50880	4.51 %	1453.71	17722	4.34 %	506
Hong Kong	1	0.20 %	2674	0.24 %	2674.00	712	0.17 %	712
India	8	1.60 %	8112	0.72 %	1014.00	2414	0.59 %	301
Indonesia	1	0.20 %	855	0.08 %	855.00	256	0.06 %	256
Israel	3	0.60 %	7250	0.64 %	2416.67	2120	0.52 %	706
Italy	15	3.00 %	19197	1.70 %	1279.80	7972	1.95 %	531
Japan	30	6.00 %	95004	8.43 %	3166.80	21734	5.32 %	724
Korea, South	11	2.20 %	16356	1.45 %	1486.91	5636	1.38 %	512
Malaysia	1	0.20 %	1119	0.10 %	1119.00	512	0.13 %	512
Mexico	5	1.00 %	8498	0.75 %	1699.60	2726	0.67 %	545
Netherlands	5	1.00 %	6369	0.56 %	1273.80	1712	0.42 %	342
New Zealand	2	0.40 %	4052	0.36 %	2026.00	2256	0.55 %	1128
Portugal	3	0.60 %	3240	0.29 %	1080.00	672	0.16 %	224
Russia	1	0.20 %	1401	0.12 %	1401.00	336	0.08 %	336
Saudia Arabia	4	0.80 %	7454	0.66 %	1863.50	2758	0.67 %	689
Singapore	1	0.20 %	1016	0.09 %	1016.00	256	0.06 %	256
South Africa	3	0.60 %	3389	0.30 %	1129.67	896	0.22 %	298
Spain	3	0.60 %	22691	2.01 %	7563.67	4300	1.05 %	1433
Sweden	4	0.80 %	4642	0.41 %	1160.50	1232	0.30 %	308
Switzerland	3	0.60 %	4076	0.36 %	1358.67	2092	0.51 %	697

Country	Count	Percent	Sum (GFlops)	Share	Mean	Sum	Share	Mean
Taiwan	2	0.40 %	3055	0.27 %	1527.50	724	0.18 %	362
United Kingdom	42	8.40 %	82928	7.36 %	1974.48	32162	7.87 %	765
United States	267	53.40 %	686733	60.91 %	2572.03	267653	65.50 %	1002
Venezuela	1	0.20 %	1198	0.11 %	1198.00	256	0.06 %	256
All	500	100%	1127481	100%		408629	100%	

Geographical Regions

			Rmax			Processors		
Geographical Region	Count	Percent	Sum (GFlops)	Share	Mean	Sum	Share	Mean
Australia And New Zealand	7	1.40 %	10442	0.93 %	1491.71	3776	0.92 %	539
Central America	5	1.00 %	8498	0.75 %	1699.60	2726	0.67 %	545
Eastern Asia	61	12.20 %	149026	13.22 %	2443.05	39450	9.65 %	646
Eastern Europe	2	0.40 %	3433	0.30 %	1716.50	912	0.22 %	456
North America	274	54.80 %	702563	62.31 %	2564.10	273413	66.91 %	997
Northern Europe	47	9.40 %	88740	7.87 %	1888.09	33906	8.30 %	721
South America	4	0.80 %	7815	0.69 %	1953.75	2132	0.52 %	533
South-central Asia	8	1.60 %	8112	0.72 %	1014.00	2414	0.59 %	301
South-eastern Asia	3	0.60 %	2990	0.27 %	996.67	1024	0.25 %	341
Southern Africa	3	0.60 %	3389	0.30 %	1129.67	896	0.22 %	298
Southern Europe	21	4.20 %	45128	4.00 %	2148.95	12944	3.17 %	616
Western Asia	7	1.40 %	14704	1.30 %	2100.57	4878	1.19 %	696
Western Europe	58	11.60 %	82641	7.33 %	1424.84	30158	7.38 %	519
All	500	100%	1127481	100%		408629	100%	

Architecture Type

			Rmax			Processors		
Architecture Type	Count	Percent	Sum (GFlops)	Share	Mean	Sum	Share	Mean
Cluster	294	58.80 %	612373	54.31 %	2082.90	209421	51.25 %	712
Constellations	106	21.20 %	122640	10.88 %	1156.98	44016	10.77 %	415
MPP	100	20.00 %	392468	34.81 %	3924.68	155192	37.98 %	1551
All	500	100%	1127481	100%		408629	100%	

Processor Architecture

			Rmax			Processors		
Processor Architecture	Count	Percent	Sum (GFlops)	Share	Mean	Sum	Share	Mean
Scalar	479	95.80 %	1058853	93.91 %	2210.55	399197	97.69 %	833
Vector	21	4.20 %	68628	6.09 %	3268.00	9432	2.31 %	449
All	500	100%	1127481	100%		408629	100%	

Interconnect Families

Interconnect Family	Count	Percent	Rmax			Processors		
			Sum (GFlops)	Share	Mean	Sum	Share	Mean
Cray Interconnect	2	0.40 %	2332	0.21 %	1166.00	3692	0.90 %	1846
Crossbar	23	4.60 %	78586	6.97 %	3416.78	13208	3.23 %	574
Fireplane	2	0.40 %	2118	0.19 %	1059.00	1572	0.38 %	786
Gigabit Ethernet	176	35.20 %	292227	25.92 %	1660.38	111652	27.32 %	634
Giganet	1	0.20 %	1283	0.11 %	1283.00	520	0.13 %	520
HIPPI	1	0.20 %	1608	0.14 %	1608.00	6144	1.50 %	6144
Infiniband	10	2.00 %	23869	2.12 %	2386.90	5948	1.46 %	594
Mixed	1	0.20 %	8728	0.77 %	8728.00	2048	0.50 %	2048
Myrinet	193	38.60 %	317324	28.14 %	1644.17	99481	24.35 %	515
NUMAflex	1	0.20 %	853	0.08 %	853.00	1024	0.25 %	1024
NUMAlink	18	3.60 %	73669	6.53 %	4092.72	14880	3.64 %	826
Proprietary	4	0.80 %	93434	8.29 %	23358.50	54688	13.38 %	13672
Quadrics	20	4.00 %	88273	7.83 %	4413.65	32248	7.89 %	1612
SCI	2	0.40 %	2091	0.19 %	1045.50	688	0.17 %	344
SP Switch	46	9.20 %	141088	12.51 %	3067.13	60836	14.89 %	1322
All	500	100%	1127481	100%		408629	100%	

System Families

System Family	Count	Percent	Rmax			Processors		
			Sum (GFlops)	Share	Mean	Sum	Share	Mean
Bull SMP Cluster	1	0.20 %	1131	0.10 %	1131.00	256	0.06 %	256
Cray X1	7	1.40 %	16298	1.45 %	2328.29	1396	0.34 %	199
Dell Cluster	13	2.60 %	32620	2.89 %	2509.23	10112	2.47 %	777
Fujitsu Cluster	1	0.20 %	8728	0.77 %	8728.00	2048	0.50 %	2048
Hitachi SR11000	2	0.40 %	6228	0.55 %	3114.00	106	0.03 %	53
Hitachi SR8xxx	4	0.80 %	5152	0.46 %	1288.00	1548	0.38 %	387
HP AlphaServer	9	1.80 %	29085	2.58 %	3231.67	18020	4.41 %	2002
HP Cluster	63	12.60 %	97899	8.68 %	1553.95	28912	7.08 %	458
HP Superdome	100	20.00 %	108241	9.60 %	1082.41	38284	9.37 %	382
IBM BlueGene/L	3	0.60 %	91055	8.08 %	30351.67	45056	11.03 %	15018
IBM Cluster	160	32.00 %	309745	27.47 %	1935.91	109300	26.75 %	683
IBM SP	52	10.40 %	146909	13.03 %	2825.17	65354	15.99 %	1256
intel Paragon	1	0.20 %	2379	0.21 %	2379.00	9632	2.36 %	9632
Legend	2	0.40 %	5490	0.49 %	2745.00	1536	0.38 %	768
NEC Vector	10	2.00 %	47177	4.18 %	4717.70	6488	1.59 %	648
NOW - PowerPC	2	0.40 %	13199	1.17 %	6599.50	2456	0.60 %	1228
NOW - Alpha	1	0.20 %	997	0.09 %	997.00	1800	0.44 %	1800
NOW - AMD	13	2.60 %	30855	2.74 %	2373.46	11676	2.86 %	898
NOW - Intel Itanium	5	1.00 %	33947	3.01 %	6789.40	7712	1.89 %	1542
NOW - Intel Pentium	23	4.60 %	47997	4.26 %	2086.83	15189	3.72 %	660
PRIMEPOWER HPC2500	2	0.40 %	9958	0.88 %	4979.00	3776	0.92 %	1888
SGI Altix	18	3.60 %	73669	6.53 %	4092.72	14880	3.64 %	826
SGI Origin	2	0.40 %	2461	0.22 %	1230.50	7168	1.75 %	3584
Sun Fire	2	0.40 %	2118	0.19 %	1059.00	1572	0.38 %	786
Sun Fire - Intel based	2	0.40 %	1812	0.16 %	906.00	660	0.16 %	330
T3E/T3D	2	0.40 %	2332	0.21 %	1166.00	3692	0.90 %	1846
All	500	100%	1127481	100%		408629	100%	

Computer Types

Computer Type	Count	Percent	Rmax			Processors		
			Sum (GFlops)	Share	Mean	Sum	Share	Mean
ASCI - Red	1	0.20 %	2379	0.21 %	2379.00	9632	2.36 %	9632
BlueGene/L	3	0.60 %	91055	8.08 %	30351.67	45056	11.03 %	15018
Cray X1	7	1.40 %	16298	1.45 %	2328.29	1396	0.34 %	199
DeepComp 1800 - Myrinet	1	0.20 %	1297	0.12 %	1297.00	512	0.13 %	512
DeepComp 6800 - Quadrics	1	0.20 %	4193	0.37 %	4193.00	1024	0.25 %	1024
Dell-Cray	1	0.20 %	4152	0.37 %	4152.00	1024	0.25 %	1024
eServer Cluster Opteron - GigE	11	2.20 %	10802	0.96 %	982.00	6276	1.54 %	570
eServer Cluster Opteron - Infiniband	1	0.20 %	1930	0.17 %	1930.00	936	0.23 %	936
eServer Cluster Opteron - Myrinet	4	0.80 %	16007	1.42 %	4001.75	5384	1.32 %	1346
eServer Intel Tiger4, - Myrinet	1	0.20 %	1636	0.15 %	1636.00	512	0.13 %	512
Fire 15K Cluster	2	0.40 %	2118	0.19 %	1059.00	1572	0.38 %	786
Fire V60 Cluster, Gig Ethernet	2	0.40 %	1812	0.16 %	906.00	660	0.16 %	330
Fujitsu Cluster	1	0.20 %	8728	0.77 %	8728.00	2048	0.50 %	2048
HP BL-20P Cluster	12	2.40 %	18673	1.66 %	1556.08	5806	1.42 %	483
HP DL140 Cluster	6	1.20 %	6188	0.55 %	1031.33	1588	0.39 %	264
HP DL145 Cluster	2	0.40 %	3152	0.28 %	1576.00	1024	0.25 %	512
HP DL360 Cluster - Infiniband	1	0.20 %	1401	0.12 %	1401.00	348	0.09 %	348
HP DL360 Cluster - Myrinet	27	5.40 %	38831	3.44 %	1438.19	11680	2.86 %	432
HP DL380 Cluster	6	1.20 %	8404	0.75 %	1400.67	2622	0.64 %	437
HP DL580 Cluster	1	0.20 %	1206	0.11 %	1206.00	400	0.10 %	400

Computer Type	Count	Percent	Sum (GFlops)	Share	Mean	Sum	Share	Mean
Integrity rx2600 Itanium2 Cluster	3	0.60 %	11775	1.04 %	3925.00	2624	0.64 %	874
Integrity rx4640 Itanium2 Cluster, GigEthernet	2	0.40 %	3477	0.31 %	1738.50	1344	0.33 %	672
Integrity rx5670 Itanium2 Cluster, GigEthernet	1	0.20 %	2556	0.23 %	2556.00	1024	0.25 %	1024
Integrity Superdome	50	10.00 %	55738	4.94 %	1114.76	12220	2.99 %	244
Integrity zx6000 Itanium2 Cluster - Myrinet	2	0.40 %	2236	0.20 %	1118.00	452	0.11 %	226
Itanium2 Tiger4 Cluster - Quadrics	1	0.20 %	19940	1.77 %	19940.00	4096	1.00 %	4096
JS20 CLuster, Myrinet	3	0.60 %	22940	2.03 %	7646.67	4152	1.02 %	1384
NovaScale5160	1	0.20 %	1131	0.10 %	1131.00	256	0.06 %	256
NOW Cluster - Alpha - myrinet	1	0.20 %	997	0.09 %	997.00	1800	0.44 %	1800
NOW Cluster - AMD - Gig Ethernet	5	1.00 %	7501	0.67 %	1500.20	3784	0.93 %	756
NOW Cluster - AMD - Infiniband	3	0.60 %	4008	0.36 %	1336.00	1376	0.34 %	458
NOW Cluster - AMD - Myrinet	5	1.00 %	19346	1.72 %	3869.20	6516	1.59 %	1303
NOW Cluster - Intel Itanium - Myrinet	3	0.60 %	6792	0.60 %	2264.00	1840	0.45 %	613
NOW Cluster - Intel Pentium - Gig Ethernet	2	0.40 %	3452	0.31 %	1726.00	1040	0.25 %	520
NOW Cluster - Intel Pentium - Giganet	1	0.20 %	1283	0.11 %	1283.00	520	0.13 %	520
NOW Cluster - Intel Pentium - Infiniband	2	0.40 %	2009	0.18 %	1004.50	512	0.13 %	256
NOW Cluster - Intel Pentium - Myrinet	13	2.60 %	29456	2.61 %	2265.85	9613	2.35 %	739
NOW Cluster - Intel Pentium - Quadrics	3	0.60 %	9706	0.86 %	3235.33	2816	0.69 %	938

Computer Type	Count	Percent	Sum (GFlops)	Share	Mean	Sum	Share	Mean
NOW Cluster - Intel Pentium - SC 3D	2	0.40 %	2091	0.19 %	1045.50	688	0.17 %	344
ORIGIN 2000 250 MHz - Constellation	1	0.20 %	1608	0.14 %	1608.00	6144	1.50 %	6144
ORIGIN 3000 600 MHz	1	0.20 %	853	0.08 %	853.00	1024	0.25 %	1024
PowerEdge 1750 - GigE	3	0.60 %	3488	0.31 %	1162.67	1728	0.42 %	576
PowerEdge 1750 - Infiniband	1	0.20 %	882	0.08 %	882.00	192	0.05 %	192
PowerEdge 1750, Myrinet	3	0.60 %	15437	1.37 %	5145.67	3860	0.94 %	1286
PowerEdge 1850 - GigE	1	0.20 %	3064	0.27 %	3064.00	872	0.21 %	872
PowerEdge 2650 - GigE	1	0.20 %	1503	0.13 %	1503.00	640	0.16 %	640
PowerEdge 2650 - Myrinet	1	0.20 %	2004	0.18 %	2004.00	600	0.15 %	600
PowerEdge 2650 - Quadrics	1	0.20 %	878	0.08 %	878.00	256	0.06 %	256
PowerEdge 650, Gig Ethernet	1	0.20 %	1212	0.11 %	1212.00	940	0.23 %	940
PRIMEPOWER HPC2500	2	0.40 %	9958	0.88 %	4979.00	3776	0.92 %	1888
SC Alpha-Server-Cluster	9	1.80 %	29085	2.58 %	3231.67	18020	4.41 %	2002
SGI Altix 1.3 GHz	9	1.80 %	11920	1.06 %	1324.44	2672	0.65 %	296
SGI Altix 1.5 GHz	9	1.80 %	61749	5.48 %	6861.00	12208	2.99 %	1356
SP PC604e 332 MHz	1	0.20 %	2144	0.19 %	2144.00	5808	1.42 %	5808
SP Power3 375 MHz	1	0.20 %	1417	0.13 %	1417.00	1336	0.33 %	1336
SP Power3 375 MHz high node	6	1.20 %	20904	1.85 %	3484.00	20588	5.04 %	3431
SP Power4+, Federation	18	3.60 %	76945	6.82 %	4274.72	20416	5.00 %	1134
SP Power4+, GigE	6	1.20 %	7557	0.67 %	1259.50	3520	0.86 %	586
SP Power4, Colony	16	3.20 %	30682	2.72 %	1917.62	11558	2.83 %	722
SP Power4, Federation	2	0.40 %	2768	0.25 %	1384.00	1024	0.25 %	512
SP Power4, Gig Ethernet	1	0.20 %	1424	0.13 %	1424.00	384	0.09 %	384
SP Power5, GigE	1	0.20 %	3068	0.27 %	3068.00	720	0.18 %	720
SR11000-H1	2	0.40 %	6228	0.55 %	3114.00	106	0.03 %	53

Computer Type	Count	Percent	Sum (GFlops)	Share	Mean	Sum	Share	Mean
SR8000	1	0.20 %	873	0.08 %	873.00	128	0.03 %	128
SR8000-F1	2	0.40 %	2570	0.23 %	1285.00	268	0.07 %	134
SR8000/MPP	1	0.20 %	1709	0.15 %	1709.00	1152	0.28 %	1152
SuperDome HyperPlex	50	10.00 %	52503	4.66 %	1050.06	26064	6.38 %	521
SX5	1	0.20 %	1192	0.11 %	1192.00	128	0.03 %	128
SX6	8	1.60 %	44607	3.96 %	5575.88	6200	1.52 %	775
SX7	1	0.20 %	1378	0.12 %	1378.00	160	0.04 %	160
T3E1200	2	0.40 %	2332	0.21 %	1166.00	3692	0.90 %	1846
Titan Cluster Itanium2 - Myrinet	1	0.20 %	7215	0.64 %	7215.00	1776	0.43 %	1776
xSeries Cluster Xeon - GigE	126	25.20 %	221690	19.66 %	1759.44	82658	20.23 %	656
xSeries Cluster Xeon - Infiniband	1	0.20 %	1389	0.12 %	1389.00	384	0.09 %	384
xSeries Cluster Xeon - Myrinet	11	2.20 %	20534	1.82 %	1866.73	5538	1.36 %	503
xSeries Cluster Xeon - Quadrics	2	0.40 %	12818	1.14 %	6409.00	3460	0.85 %	1730
XServe Cluster	1	0.20 %	12250	1.09 %	12250.00	2200	0.54 %	2200
XServe Cluster, GigE	1	0.20 %	949	0.08 %	949.00	256	0.06 %	256
All	500	100%	1127481	100%		408629	100%	

Processors per System

Processors per System	Count	Percent	Rmax			Processors		
			Sum (GFlops)	Share	Mean	Sum	Share	Mean
32k-64k	1	0.20 %	70720	6.27 %	70720.00	32768	8.02 %	32768
16k-32k	1	0.20 %	70720	6.27 %	70720.00	32768	8.02 %	32768
8k-16k	5	1.00 %	87113	7.73 %	17422.60	44368	10.86 %	8873
4k-8k	9	1.80 %	108375	9.61 %	12041.67	56496	13.83 %	6277
2049-4096	18	3.60 %	156702	13.90 %	8705.67	49288	12.06 %	2738
1025-2048	47	9.40 %	163817	14.53 %	3485.47	66412	16.25 %	1413
513-1024	112	22.40 %	226502	20.09 %	2022.34	85892	21.02 %	766
257-512	181	36.20 %	228287	20.25 %	1261.25	76279	18.67 %	421
129-256	119	23.80 %	128953	11.44 %	1083.64	28484	6.97 %	239
65-128	11	2.20 %	12242	1.09 %	1112.91	1304	0.32 %	118
33-64	2	0.40 %	6228	0.55 %	3114.00	106	0.03 %	53
All	500	100%	1127481	100%		408629	100%	

Processors

Processor	Count	Percent	Rmax			Processors		
			Sum (GFlops)	Share	Mean	Sum	Share	Mean
Pentium4 Xeon	232	46.40 %	422375	37.46 %	1820.58	142065	34.77 %	612
Itanium2	84	16.80 %	190357	16.88 %	2266.15	42048	10.29 %	500
HP	50	10.00 %	52503	4.66 %	1050.06	26064	6.38 %	521
Opteron	30	6.00 %	61729	5.47 %	2057.63	24796	6.07 %	826
Power4+	26	5.20 %	90730	8.05 %	3489.62	24042	5.88 %	924
Power4	19	3.80 %	34874	3.09 %	1835.47	12966	3.17 %	682
Alpha	12	2.40 %	32414	2.87 %	2701.17	23512	5.75 %	1959
Nec	10	2.00 %	47177	4.18 %	4717.70	6488	1.59 %	648
PowerPC	8	1.60 %	127194	11.28 %	15899.25	51664	12.64 %	6458
Power	8	1.60 %	24465	2.17 %	3058.12	27732	6.79 %	3466
Cray	7	1.40 %	16298	1.45 %	2328.29	1396	0.34 %	199
Sparc	4	0.80 %	12076	1.07 %	3019.00	5348	1.31 %	1337
Hitachi SR8000	4	0.80 %	5152	0.46 %	1288.00	1548	0.38 %	387
MIPS	2	0.40 %	2461	0.22 %	1230.50	7168	1.75 %	3584
Pentium4	1	0.20 %	1212	0.11 %	1212.00	940	0.23 %	940
Power5	1	0.20 %	3068	0.27 %	3068.00	720	0.18 %	720
AMD Athlon	1	0.20 %	1017	0.09 %	1017.00	500	0.12 %	500
Intel	1	0.20 %	2379	0.21 %	2379.00	9632	2.36 %	9632
All	500	100%	1127481	100%		408629	100%	

Processor Families

Processor Families	Count	Percent	Rmax			Processors		
			Sum (GFlops)	Share	Mean	Sum	Share	Mean
Intel	318	63.60 %	616323	54.66 %	1938.12	194685	47.64 %	612
Power	54	10.80 %	153137	13.58 %	2835.87	65460	16.02 %	1212
HP	50	10.00 %	52503	4.66 %	1050.06	26064	6.38 %	521
AMD	31	6.20 %	62746	5.57 %	2024.06	25296	6.19 %	816
Alpha	12	2.40 %	32414	2.87 %	2701.17	23512	5.75 %	1959
Nec	10	2.00 %	47177	4.18 %	4717.70	6488	1.59 %	648
PowerPC	8	1.60 %	127194	11.28 %	15899.25	51664	12.64 %	6458
Cray	7	1.40 %	16298	1.45 %	2328.29	1396	0.34 %	199
Sparc	4	0.80 %	12076	1.07 %	3019.00	5348	1.31 %	1337
Hitachi SR8000	4	0.80 %	5152	0.46 %	1288.00	1548	0.38 %	387
MIPS	2	0.40 %	2461	0.22 %	1230.50	7168	1.75 %	3584
All	500	100%	1127481	100%		408629	100%	

Processor Architecture

			Rmax			Processors		
Processor Architecture	Count	Percent	Sum (GFlops)	Share	Mean	Sum	Share	Mean
Scalar	479	95.80 %	1058853	93.91 %	2210.55	399197	97.69 %	833
Vector	21	4.20 %	68628	6.09 %	3268.00	9432	2.31 %	449
All	500	100%	1127481	100%		408629	100%	

Installation Year

Installation Year	Count	Percent	Rmax			Processors		
			Sum (GFlops)	Share	Mean	Sum	Share	Mean
1998	1	0.20 %	1608	0.14 %	1608.00	6144	1.50 %	6144
1999	4	0.80 %	6562	0.58 %	1640.50	17360	4.25 %	4340
2000	3	0.60 %	9638	0.85 %	3212.67	9628	2.36 %	3209
2001	7	1.40 %	14594	1.29 %	2084.86	10656	2.61 %	1522
2002	32	6.40 %	109944	9.75 %	3435.75	44661	10.93 %	1395
2003	95	19.00 %	172475	15.30 %	1815.53	62922	15.40 %	662
2004	358	71.60 %	812660	72.08 %	2270.00	257258	62.96 %	718
All	500	100%	1127481	100%		408629	100%	

Application Area

			Rmax			Processors		
Application	Count	Percent	Sum (GFlops)	Share	Mean	Sum	Share	Mean
Unspecified	232	46.40 %	699933	62.08 %	3016.95	256979	62.89 %	1107
Aerospace	5	1.00 %	9448	0.84 %	1889.60	4352	1.07 %	870
Automotive	15	3.00 %	19913	1.77 %	1327.53	8208	2.01 %	547
Benchmarking	3	0.60 %	2744	0.24 %	914.67	896	0.22 %	298
Database	21	4.20 %	25557	2.27 %	1217.00	9114	2.23 %	434
Digital Content Creation	18	3.60 %	29503	2.62 %	1639.06	8720	2.13 %	484
Digital Media	1	0.20 %	2026	0.18 %	2026.00	1008	0.25 %	1008
Electronics	4	0.80 %	4078	0.36 %	1019.50	1270	0.31 %	317
Energy	2	0.40 %	2049	0.18 %	1024.50	1024	0.25 %	512
Entertainment	5	1.00 %	9763	0.87 %	1952.60	2600	0.64 %	520
Finance	13	2.60 %	21967	1.95 %	1689.77	8654	2.12 %	665
Geophysics	51	10.20 %	90425	8.02 %	1773.04	35030	8.57 %	686
Image Proc./Rendering	3	0.60 %	6185	0.55 %	2061.67	2824	0.69 %	941
Information Processing Service	12	2.40 %	16241	1.44 %	1353.42	5120	1.25 %	426
Life Science	6	1.20 %	6322	0.56 %	1053.67	1836	0.45 %	306
Manufacturing	2	0.40 %	2469	0.22 %	1234.50	544	0.13 %	272
Media	1	0.20 %	1068	0.09 %	1068.00	288	0.07 %	288
Medicine	1	0.20 %	895	0.08 %	895.00	268	0.07 %	268
Research	3	0.60 %	4083	0.36 %	1361.00	1208	0.30 %	402
Semiconductor	38	7.60 %	63533	5.63 %	1671.92	22534	5.51 %	593
Software	13	2.60 %	16441	1.46 %	1264.69	4318	1.06 %	332
Telecomm	31	6.20 %	34162	3.03 %	1102.00	13968	3.42 %	450
Weather and Climate Research	18	3.60 %	52450	4.65 %	2913.89	16010	3.92 %	889
Weather Forecasting	2	0.40 %	6228	0.55 %	3114.00	1856	0.45 %	928
All	500	100%	1127481	100%		408629	100%	

Customer Segments

Segment	Count	Percent	Rmax			Processors		
			Sum (GFlops)	Share	Mean	Sum	Share	Mean
Academic	80	16.00 %	190095	16.86 %	2376.19	55010	13.46 %	687
Classified	15	3.00 %	18182	1.61 %	1212.13	8406	2.06 %	560
Government	1	0.20 %	1256	0.11 %	1256.00	622	0.15 %	622
Industry	275	55.00 %	396051	35.13 %	1440.19	144596	35.39 %	525
Research	110	22.00 %	486505	43.15 %	4422.77	186015	45.52 %	1691
Vendor	19	3.80 %	35392	3.14 %	1862.74	13980	3.42 %	735
All	500	100%	1127481	100%		408629	100%	

Vendors/Customer Segments (Systems)

	Academic	Classified	Government	Industry	Others	Research	Vendor	Total
Cray Inc.	1	3	-	-	-	4	1	9
Dell	11	-	-	1	-	2	-	14
Fujitsu	1	-	-	-	-	2	-	3
Hitachi	3	-	-	-	-	3	-	6
HPTi	-	-	-	-	-	1	-	1
IBM	28	5	1	131	-	46	5	216
Intel	-	-	-	-	-	1	-	1
NEC	1	-	-	2	-	8	1	12
SGI	5	-	-	4	-	10	1	20
Sun	3	-	-	1	-	-	-	4
Appro International	-	-	-	1	-	-	-	1
Atipa Technology	2	-	-	-	-	2	-	4
lenovo	2	-	-	-	-	-	-	2
Linux Networx	-	-	-	3	-	8	-	11
Verari Systems	-	-	-	1	-	-	-	1
Self-made	8	-	-	-	-	2	-	10
Hewlett-Packard	10	7	-	130	-	15	11	173
Visual Technology	1	-	-	-	-	-	-	1
Promicro	-	-	-	-	-	2	-	2
California Digital Corporation	-	-	-	-	-	1	-	1
Angstrom Microsystems	2	-	-	-	-	-	-	2
Dawning	-	-	-	-	-	1	-	1
Bull SA	-	-	-	1	-	-	-	1
Exadron	-	-	-	-	-	1	-	1
Advanced Computing/Voltaire	1	-	-	-	-	-	-	1
IMSc-Netweb-Summation	-	-	-	-	-	1	-	1
T-platforms	1	-	-	-	-	-	-	1
Total	80	15	1	275		110	19	500

Vendors/Customer Segments (Performance)

	Academic	Classified	Government	Industry	Others	Research	Vendor	Total
Cray Inc.	1448	5036	-	-	-	10698	1448	18630
Dell	30670	-	-	1068	-	2386	-	34124
Fujitsu	4552	-	-	-	-	14134	-	18686
Hitachi	4235	-	-	-	-	7145	-	11380
HPTi	-	-	-	-	-	3337	-	3337
IBM	82726	6054	1256	224846	-	224018	18009	556909
Intel	-	-	-	-	-	2379	-	2379
NEC	1192	-	-	2669	-	45003	982	49846
SGI	6272	-	-	4612	-	62908	2338	76130
Sun	2990	-	-	940	-	-	-	3930
Appro International	-	-	-	923	-	-	-	923
Atipa Technology	3096	-	-	-	-	3640	-	6736
lenovo	5490	-	-	-	-	-	-	5490
Linux Networx	-	-	-	2996	-	30648	-	33644
Verari Systems	-	-	-	1580	-	-	-	1580
Self-made	24622	-	-	-	-	2101	-	26723
Hewlett-Packard	15568	7092	-	155286	-	45993	12614	236553
Visual Technology	1169	-	-	-	-	-	-	1169
Promicro	-	-	-	-	-	2072	-	2072
California Digital Corporation	-	-	-	-	-	19940	-	19940
Angstrom Microsystems	3100	-	-	-	-	-	-	3100
Dawning	-	-	-	-	-	8061	-	8061
Bull SA	-	-	-	1131	-	-	-	1131
Exadron	-	-	-	-	-	1084	-	1084
Advanced Computing/Voltaire	933	-	-	-	-	-	-	933
IMSc-Netweb-Summation	-	-	-	-	-	959	-	959
T-platforms	2032	-	-	-	-	-	-	2032
Total	190095	18182	1256	396051		486506	35391	1127481

Continents/Customer Segments (Systems)

	Academic	Classified	Government	Industry	Others	Research	Vendor	Total
Africa	-	-	-	3	-	-	-	3
Americas	40	12	-	143	-	70	18	283
Asia	16	-	1	35	-	26	1	79
Europe	22	3	-	90	-	13	-	128
Oceania	2	-	-	4	-	1	-	7
Total	80	15	1	275		110	19	500

Continents/Customer Segments (Performance)

	Academic	Classified	Government	Industry	Others	Research	Vendor	Total
Africa	-	-	-	3389	-	-	-	3389
Americas	102070	14077	-	220269	-	348050	34410	718876
Asia	29530	-	1256	45609	-	97455	982	174832
Europe	56462	4105	-	119504	-	39870	-	219941
Oceania	2032	-	-	7280	-	1130	-	10442
Total	190094	18182	1256	396051		486505	35392	1127480

Regions/Customer Segments (Systems)

	Academic	Classified	Government	Industry	Others	Research	Vendor	Total
South America	-	-	-	4	-	-	-	4
Central America	1	-	-	4	-	-	-	5
Southern Africa	-	-	-	3	-	-	-	3
North America	39	12	-	135	-	70	18	274
Eastern Asia	16	-	1	23	-	20	1	61
South-eastern Asia	-	-	-	2	-	1	-	3
Southern Europe	3	-	-	17	-	1	-	21
Australia and New Zealand	2	-	-	4	-	1	-	7
South-central Asia	-	-	-	3	-	5	-	8
Western Asia	-	-	-	7	-	-	-	7
Eastern Europe	2	-	-	-	-	-	-	2
Northern Europe	8	3	-	31	-	5	-	47
Western Europe	9	-	-	42	-	7	-	58
Total	80	15	1	275		110	19	500

Regions/Customer Segments (Performance)

	Academic	Classified	Government	Industry	Others	Research	Vendor	Total
South America	-	-	-	7815	-	-	-	7815
Central America	1210	-	-	7288	-	-	-	8498
Southern Africa	-	-	-	3389	-	-	-	3389
North America	100860	14077	-	205165	-	348050	34410	702562
Eastern Asia	29530	-	1256	25563	-	91695	982	149026
South-eastern Asia	-	-	-	1974	-	1016	-	2990
Southern Europe	25145	-	-	18899	-	1084	-	45128
Australia and New Zealand	2032	-	-	7280	-	1130	-	10442
South-central Asia	-	-	-	3368	-	4744	-	8112
Western Asia	-	-	-	14704	-	-	-	14704
Eastern Europe	3433	-	-	-	-	-	-	3433
Northern Europe	14658	4105	-	48519	-	21459	-	88741
Western Europe	13227	-	-	52087	-	17328	-	82642
Total	190095	18182	1256	396051		486506	35392	1127482

Application Area/Customer Segments (Systems)

	Academic	Classified	Government	Industry	Others	Research	Vendor	Total
Aerospace	-	-	-	3	-	2	-	5
Automotive	-	-	-	15	-	-	-	15
Benchmarking	-	-	-	-	-	-	3	3
Database	-	-	-	21	-	-	-	21
Digital Content Creation	-	-	-	18	-	-	-	18
Digital Media	-	-	-	1	-	-	-	1
Electronics	-	-	-	4	-	-	-	4
Energy	-	-	-	2	-	-	-	2
Entertainment	-	-	-	5	-	-	-	5
Finance	-	-	-	13	-	-	-	13
Geophysics	-	-	-	46	-	5	-	51
Image Proc./Rendering	-	-	-	3	-	-	-	3
Information Processing Service	-	-	-	12	-	-	-	12
Life Science	-	-	-	5	-	1	-	6
Manufacturing	-	-	-	2	-	-	-	2
Media	-	-	-	1	-	-	-	1
Medicine	1	-	-	-	-	-	-	1
Research	-	-	-	3	-	-	-	3
Semiconductor	-	-	-	38	-	-	-	38
Software	-	-	-	3	-	-	10	13
Telecomm	-	-	-	31	-	-	-	31
Unspecified	79	15	1	49	-	82	6	232
Weather and Climate Research	-	-	-	-	-	18	-	18
Weather Forecasting	-	-	-	-	-	2	-	2
Total	80	15	1	275		110	19	500

Application Area/Customer Segments (Performance)

	Academic	Classified	Government	Industry	Others	Research	Vendor	Total
Aerospace	-	-	-	3190	-	6259	-	9449
Automotive	-	-	-	19913	-	-	-	19913
Benchmarking	-	-	-	-	-	-	2744	2744
Database	-	-	-	25557	-	-	-	25557
Digital Content Creation	-	-	-	29503	-	-	-	29503
Digital Media	-	-	-	2026	-	-	-	2026
Electronics	-	-	-	4078	-	-	-	4078
Energy	-	-	-	2049	-	-	-	2049
Entertainment	-	-	-	9763	-	-	-	9763
Finance	-	-	-	21967	-	-	-	21967
Geophysics	-	-	-	84885	-	5540	-	90425
Image Proc./Rendering	-	-	-	6185	-	-	-	6185
Information Processing Service	-	-	-	16241	-	-	-	16241
Life Science	-	-	-	5306	-	1016	-	6322
Manufacturing	-	-	-	2469	-	-	-	2469
Media	-	-	-	1068	-	-	-	1068
Medicine	895	-	-	-	-	-	-	895
Research	-	-	-	4083	-	-	-	4083
Semiconductor	-	-	-	63533	-	-	-	63533
Software	-	-	-	3250	-	-	13191	16441
Telecomm	-	-	-	34162	-	-	-	34162
Unspecified	189200	18182	1256	56825	-	415012	19458	699933
Weather and Climate Research	-	-	-	-	-	52450	-	52450
Weather Forecasting	-	-	-	-	-	6228	-	6228
Total	190095	18182	1256	396053		486505	35393	1127484

Vendors/Architecture Type (Systems)

	Cluster	Constellations	MPP	Total
Cray Inc.	-	-	9	9
Dell	14	-	-	14
Fujitsu	1	2	-	3
Hitachi	-	-	6	6
HPTi	1	-	-	1
IBM	161	-	55	216
Intel	-	-	1	1
NEC	2	1	9	12
SGI	-	-	20	20
Sun	2	2	-	4
Appro International	1	-	-	1
Atipa Technology	4	-	-	4
lenovo	2	-	-	2
Linux Networx	11	-	-	11
Verari Systems	1	-	-	1
Self-made	10	-	-	10
Hewlett-Packard	73	100	-	173
Visual Technology	1	-	-	1
Promicro	2	-	-	2
California Digital Corporation	1	-	-	1
Angstrom Microsystems	2	-	-	2
Dawning	1	-	-	1
Bull SA	-	1	-	1
Exadron	1	-	-	1
Advanced Computing/Voltaire	1	-	-	1
IMSc-Netweb-Summation	1	-	-	1
T-platforms	1	-	-	1
Total	294	106	100	500

Vendors/Architecture Type (Performance)

	Cluster	Constellations	MPP	Total
Cray Inc.	-	-	18630	18630
Dell	34124	-	-	34124
Fujitsu	8728	9958	-	18686
Hitachi	-	-	11380	11380
HPTi	3337	-	-	3337
IBM	318946	-	237964	556910
Intel	-	-	2379	2379
NEC	2669	1192	45985	49846
SGI	-	-	76129	76129
Sun	1812	2118	-	3930
Appro International	923	-	-	923
Atipa Technology	6736	-	-	6736
lenovo	5490	-	-	5490
Linux Networx	33644	-	-	33644
Verari Systems	1580	-	-	1580
Self-made	26723	-	-	26723
Hewlett-Packard	128312	108241	-	236553
Visual Technology	1169	-	-	1169
Promicro	2072	-	-	2072
California Digital Corporation	19940	-	-	19940
Angstrom Microsystems	3100	-	-	3100
Dawning	8061	-	-	8061
Bull SA	-	1131	-	1131
Exadron	1084	-	-	1084
Advanced Computing/Voltaire	933	-	-	933
IMSc-Netweb-Summation	959	-	-	959
T-platforms	2032	-	-	2032
Total	612374	122640	392467	1127481

Continents/Architecture Type (Systems)

	Cluster	Constellations	MPP	Total
Africa	-	3	-	3
Americas	197	27	59	283
Asia	43	22	14	79
Europe	50	54	24	128
Oceania	4	-	3	7
Total	294	106	100	500

Continents/Architecture Type (Performance)

	Cluster	Constellations	MPP	Total
Africa	-	3389	-	3389
Americas	415770	30337	272769	718876
Asia	85980	31412	57440	174832
Europe	103554	57502	58887	219943
Oceania	7070	-	3372	10442
Total	612374	122640	392468	1127482

Regions/Architecture Type (Systems)

	Cluster	Constellations	MPP	Total
Australia and New Zealand	4	-	3	7
Central America	3	2	-	5
Eastern Asia	26	21	14	61
Eastern Europe	2	-	-	2
North America	191	24	59	274
Northern Europe	19	19	9	47
South America	3	1	-	4
South-central Asia	7	1	-	8
South-eastern Asia	3	-	-	3
Southern Africa	-	3	-	3
Southern Europe	6	14	1	21
Western Asia	7	-	-	7
Western Europe	23	21	14	58
Total	294	106	100	500

Regions/Architecture Type (Performance)

	Cluster	Constellations	MPP	Total
Australia and New Zealand	7070	-	3372	10442
Central America	6078	2420	-	8498
Eastern Asia	61384	30202	57440	149026
Eastern Europe	3433	-	-	3433
North America	403075	26719	272769	702563
Northern Europe	36926	19613	32202	88741
South America	6617	1198	-	7815
South-central Asia	6902	1210	-	8112
South-eastern Asia	2990	-	-	2990
Southern Africa	-	3389	-	3389
Southern Europe	27835	15909	1384	45128
Western Asia	14704	-	-	14704
Western Europe	35360	21979	25301	82640
Total	612374	122639	392468	1127481

Vendors/Continents (Systems)

	Africa	Americas	Asia	Europe	Oceania	Total
Cray Inc.	-	8	1	-	-	9
Dell	-	12	-	1	1	14
Fujitsu	-	-	3	-	-	3
Hitachi	-	-	5	1	-	6
HPTi	-	1	-	-	-	1
IBM	-	139	28	45	4	216
Intel	-	1	-	-	-	1
NEC	-	-	6	5	1	12
SGI	-	12	1	6	1	20
Sun	-	2	-	2	-	4
Appro International	-	1	-	-	-	1
Atipa Technology	-	4	-	-	-	4
lenovo	-	-	2	-	-	2
Linux Networx	-	10	1	-	-	11
Verari Systems	-	1	-	-	-	1
Self-made	-	6	3	1	-	10
Hewlett-Packard	3	81	26	63	-	173
Visual Technology	-	-	1	-	-	1
Promicro	-	2	-	-	-	2
California Digital Corporation	-	1	-	-	-	1
Angstrom Microsystems	-	1	-	1	-	2
Dawning	-	-	1	-	-	1
Bull SA	-	-	-	1	-	1
Exadron	-	-	-	1	-	1
Advanced Computing/Voltaire	-	1	-	-	-	1
IMSc-Netweb-Summation	-	-	1	-	-	1
T-platforms	-	-	-	1	-	1
Total	3	283	79	128	7	500

Vendors/Continents (Performance)

	Africa	Americas	Asia	Europe	Oceania	Total
Cray Inc.	-	16442	2188	-	-	18630
Dell	-	31817	-	1212	1095	34124
Fujitsu	-	-	18686	-	-	18686
Hitachi	-	-	9727	1653	-	11380
HPTi	-	3337	-	-	-	3337
IBM	-	375867	50900	122863	7280	556910
Intel	-	2379	-	-	-	2379
NEC	-	-	42708	6008	1130	49846
SGI	-	66315	1142	7736	937	76130
Sun	-	1812	-	2118	-	3930
Appro International	-	923	-	-	-	923
Atipa Technology	-	6736	-	-	-	6736
lenovo	-	-	5490	-	-	5490
Linux Networx	-	31647	1997	-	-	33644
Verari Systems	-	1580	-	-	-	1580
Self-made	-	22265	3326	1132	-	26723
Hewlett-Packard	3389	133796	28479	70890	-	236554
Visual Technology	-	-	1169	-	-	1169
Promicro	-	2072	-	-	-	2072
California Digital Corporation	-	19940	-	-	-	19940
Angstrom Microsystems	-	1017	-	2083	-	3100
Dawning	-	-	8061	-	-	8061
Bull SA	-	-	-	1131	-	1131
Exadron	-	-	-	1084	-	1084
Advanced Computing/Voltaire	-	933	-	-	-	933
IMSc-Netweb-Summation	-	-	959	-	-	959
T-platforms	-	-	-	2032	-	2032
Total	3389	718878	174832	219942	10442	1127483