SPEC® CFP2006 Result

Hewlett-Packard Company

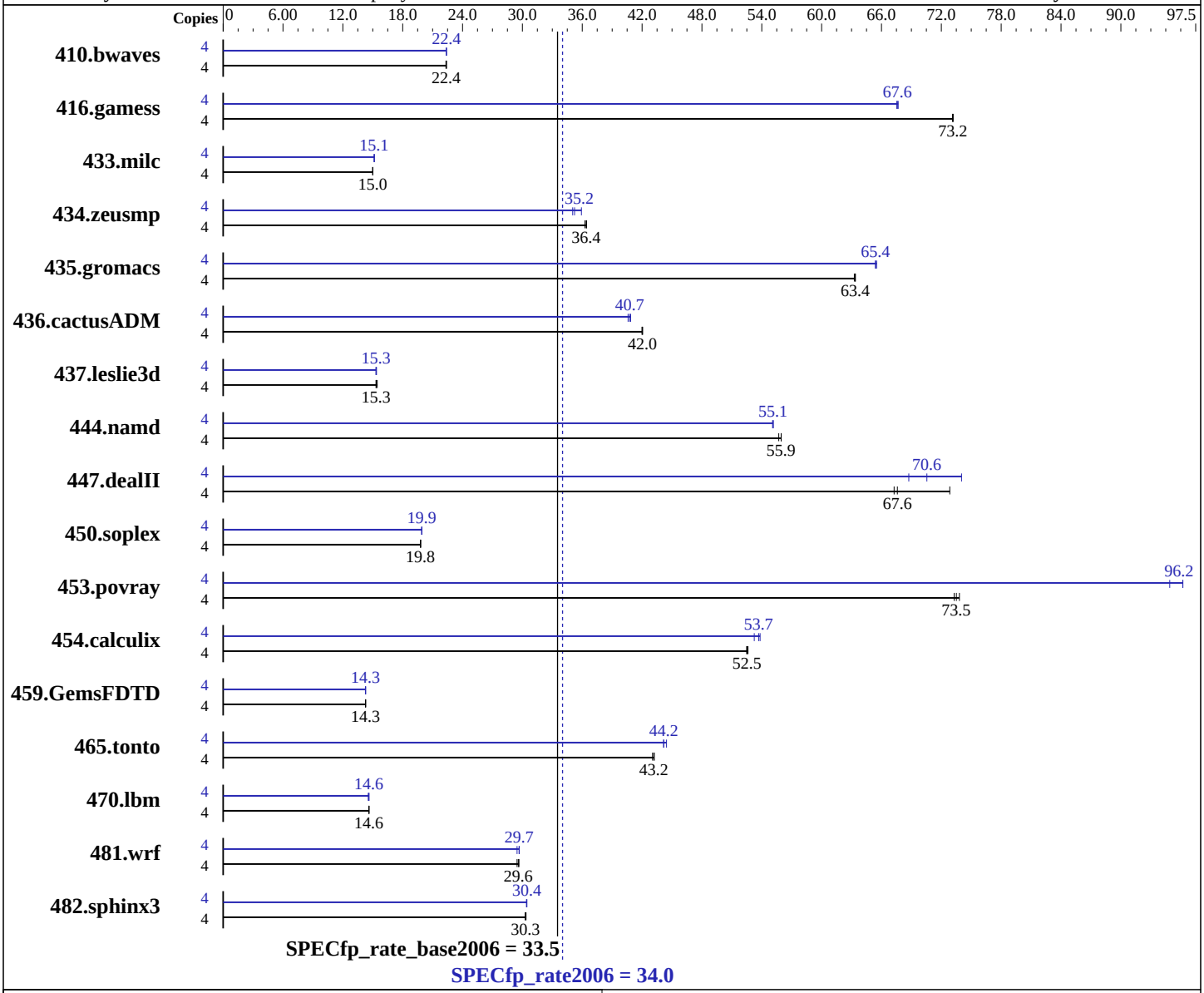
ProLiant BL20p G4
(2.66 GHz, Intel Xeon processor X5355)

SPECfp®_rate2006 = 34.0

SPECfp_rate_base2006 = 33.5

CPU2006 license: 3
Test sponsor: Hewlett-Packard Company
Tested by: Hewlett-Packard Company

Test date: Jan-2007
Hardware Availability: Jan-2007
Software Availability: Nov-2006



Hardware

CPU Name:	Intel Xeon X5355
CPU Characteristics:	
CPU MHz:	2666
FPU:	Integrated
CPU(s) enabled:	4 cores, 1 chip, 4 cores/chip
CPU(s) orderable:	1,2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	8 MB I+D on chip per chip, 4 MB shared / 2 cores

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Software

Operating System:	SuSE Linux Enterprise Server 10 (x86_64) kernel 2.6.16.21-0.8-smp
Compiler:	Intel C++ Compiler for Intel EM64T-based applications, Version 9.1 Package ID l_cc_c_9.1.045 Build no 20061101 Intel Fortran Compiler for Intel EM64T-based applications, Version 9.1 Package ID l_fc_c_9.1.040 Build no 20061101
Auto Parallel:	No

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L3 Cache:	None	File System:	ext2
Other Cache:	None	System State:	Multi-user run level 3
Memory:	16 GB (8x2 GB PC2-5300 CL5)	Base Pointers:	64-bit
Disk Subsystem:	2x72 GB SAS, 10 K RPM	Peak Pointers:	32/64-bit
Other Hardware:	None	Other Software:	None

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	2434	22.3	2428	22.4	**2429**	**22.4**	4	2430	22.4	**2429**	**22.4**	2428	22.4
416.gamess	4	1070	73.2	**1071**	**73.2**	1071	73.1	4	1160	67.5	1157	67.7	**1159**	**67.6**
433.milc	4	2449	15.0	**2448**	**15.0**	2447	15.0	4	2425	15.1	2423	15.2	**2425**	**15.1**
434.zeusmp	4	**1000**	**36.4**	999	36.4	1004	36.3	4	**1033**	**35.2**	1013	35.9	1039	35.0
435.gromacs	4	**451**	**63.4**	451	63.3	451	63.4	4	436	65.5	437	65.4	**437**	**65.4**
436.cactusADM	4	1137	42.0	**1137**	**42.0**	1138	42.0	4	1170	40.9	**1173**	**40.7**	1178	40.6
437.leslie3d	4	2434	15.4	2453	15.3	**2451**	**15.3**	4	2445	15.4	2455	15.3	**2451**	**15.3**
444.namd	4	576	55.7	573	55.9	**573**	**55.9**	4	**582**	**55.1**	582	55.2	582	55.1
447.dealII	4	**677**	**67.6**	628	72.8	680	67.3	4	666	68.7	**649**	**70.6**	618	74.0
450.soplex	4	1687	19.8	**1685**	**19.8**	1684	19.8	4	1675	19.9	1676	19.9	**1676**	**19.9**
453.povray	4	**290**	**73.5**	288	73.8	290	73.3	4	**221**	**96.2**	221	96.2	224	94.9
454.calculix	4	627	52.6	**628**	**52.5**	629	52.5	4	**615**	**53.7**	613	53.8	620	53.2
459.GemsFDTD	4	2969	14.3	2974	14.3	**2973**	**14.3**	4	**2972**	**14.3**	2976	14.3	2971	14.3
465.tonto	4	**912**	**43.2**	911	43.2	914	43.0	4	**891**	**44.2**	891	44.2	885	44.5
470.lbm	4	3759	14.6	**3760**	**14.6**	3761	14.6	4	**3760**	**14.6**	3778	14.5	3760	14.6
481.wrf	4	1507	29.7	**1510**	**29.6**	1516	29.5	4	**1506**	**29.7**	1505	29.7	1516	29.5
482.sphinx3	4	**2572**	**30.3**	2567	30.4	2575	30.3	4	2560	30.4	**2561**	**30.4**	2564	30.4

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Platform Notes

```
Power Regulator set to Static High Performance Mode in BIOS.
Adjacent Sector Prefetch Disabled in BIOS.
"/usr/bin/taskset" used to bind processes to CPUs.
Environment stack size set to 'unlimited'
```

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

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Base Compiler Invocation (Continued)

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icc ifort

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.gamess: -DSPEC_CPU_LP64
433.milc: -DSPEC_CPU_LP64
434.zeusmp: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64
450.soplex: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64
465.tonto: -DSPEC_CPU_LP64
470.lbm: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
-fast

C++ benchmarks:
-fast

Fortran benchmarks:
-fast

Benchmarks using both Fortran and C:
-fast

Peak Compiler Invocation

C benchmarks:
icc

Continued on next page

Peak Compiler Invocation (Continued)

C++ benchmarks:
icpc

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icc ifort

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:
-prof_gen(pass 1) -prof_use(pass 2) -fast -auto_ilp32

C++ benchmarks:
-prof_gen(pass 1) -prof_use(pass 2) -fast -auto_ilp32

Fortran benchmarks:
-prof_gen(pass 1) -prof_use(pass 2) -fast -auto_ilp32

Benchmarks using both Fortran and C:
-prof_gen(pass 1) -prof_use(pass 2) -fast -auto_ilp32

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/hp-ic91-flags.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/hp-ic91-flags.xml

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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