



SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECfp®_rate2006 = 201

ProLiant ML370 G6
(3.2 GHz, Intel Xeon W5580)

SPECfp_rate_base2006 = 195

CPU2006 license: 3

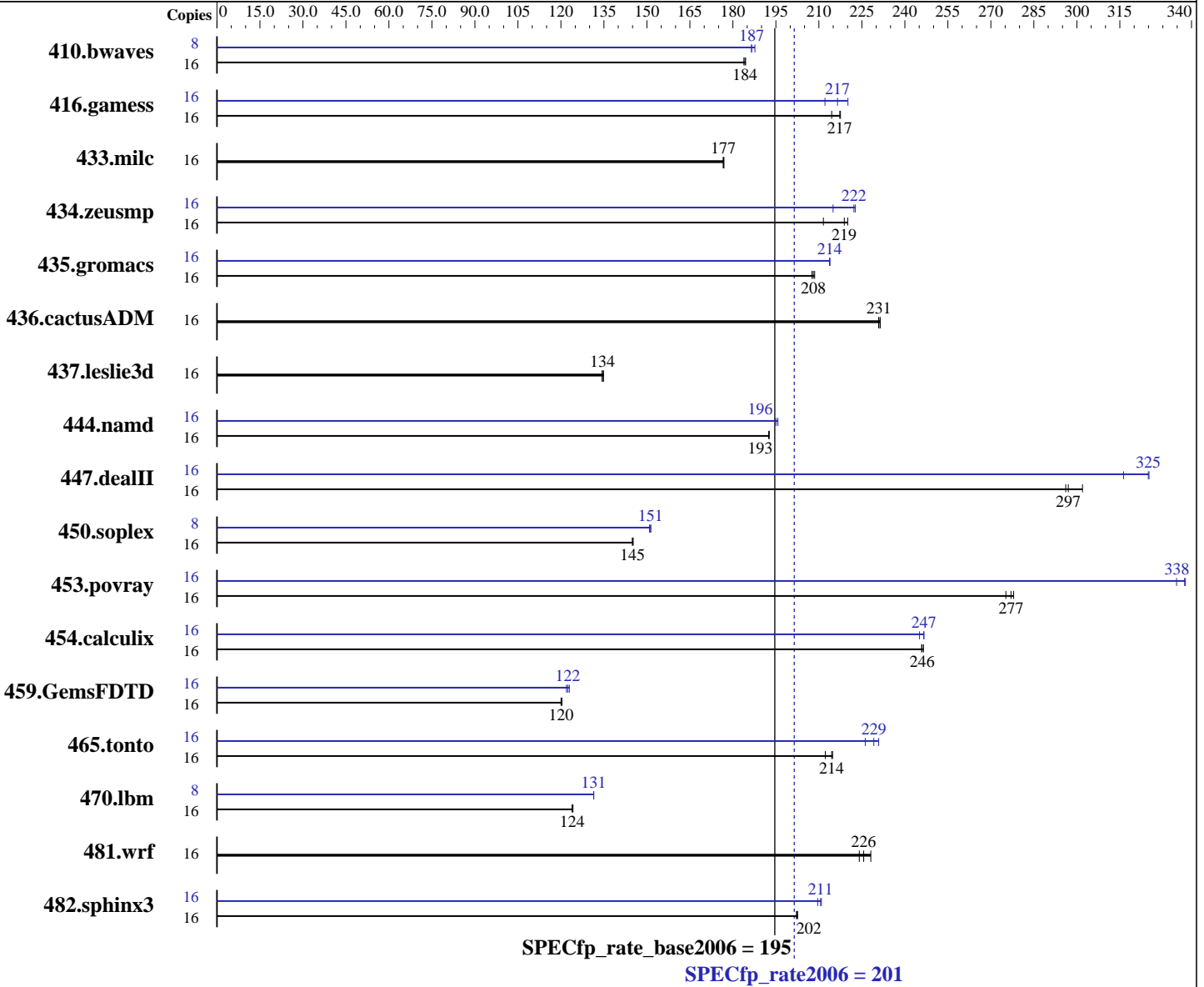
Test date: Apr-2009

Test sponsor: Hewlett-Packard Company

Hardware Availability: Apr-2009

Tested by: Hewlett-Packard Company

Software Availability: Feb-2009



Hardware

CPU Name: Intel Xeon W5580
 CPU Characteristics: Intel Turbo Boost Technology up to 3.46 GHz
 CPU MHz: 3200
 FPU: Integrated
 CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip, 2 threads/core
 CPU(s) orderable: 1,2 chips
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 256 KB I+D on chip per core

Continued on next page

Software

Operating System: Red Hat Enterprise Linux Server release 5.3
 Kernel 2.6.18-128.el5
 Compiler: Intel C++ and Fortran Compiler 11.0 for Linux
 Build 20090131 Package ID: l_cproc_p_11.0.080,
 l_cprof_p_11.0.080
 Auto Parallel: No
 File System: ext3
 System State: Run level 3 (multi-user)
 Base Pointers: 64-bit

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECfp_rate2006 = 201

ProLiant ML370 G6
(3.2 GHz, Intel Xeon W5580)

SPECfp_rate_base2006 = 195

CPU2006 license: 3

Test date: Apr-2009

Test sponsor: Hewlett-Packard Company

Hardware Availability: Apr-2009

Tested by: Hewlett-Packard Company

Software Availability: Feb-2009

L3 Cache: 8 MB I+D on chip per chip
Other Cache: None
Memory: 48 GB (6x8 GB PC3-10600R CL9)
Disk Subsystem: 1x146 GB 10 K SAS
Other Hardware: None

Peak Pointers: 32/64-bit
Other Software: Binutils 2.18.50.0.7.20080502

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	16	1180	184	1179	184	1183	184	8	583	187	579	188	583	187
416.gamess	16	1440	218	1442	217	1461	214	16	1423	220	1477	212	1447	217
433.milc	16	830	177	831	177	831	177	16	830	177	831	177	831	177
434.zeusmp	16	662	220	688	212	665	219	16	654	223	655	222	677	215
435.gromacs	16	548	209	550	208	549	208	16	534	214	534	214	534	214
436.cactusADM	16	828	231	828	231	826	231	16	828	231	828	231	826	231
437.leslie3d	16	1118	134	1115	135	1119	134	16	1118	134	1115	135	1119	134
444.namd	16	666	193	667	192	666	193	16	656	196	658	195	656	196
447.dealII	16	616	297	606	302	618	296	16	563	325	579	316	563	325
450.soplex	16	919	145	920	145	921	145	8	442	151	441	151	441	151
453.povray	16	309	275	306	278	307	277	16	254	335	252	338	252	338
454.calculix	16	537	246	537	246	535	247	16	535	247	539	245	535	247
459.GemsFDTD	16	1410	120	1414	120	1414	120	16	1392	122	1387	122	1381	123
465.tonto	16	733	215	734	214	742	212	16	687	229	696	226	682	231
470.lbm	16	1770	124	1773	124	1774	124	8	836	131	836	131	836	131
481.wrf	16	783	228	798	224	792	226	16	783	228	798	224	792	226
482.sphinx3	16	1543	202	1539	203	1540	202	16	1481	211	1479	211	1488	210

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

Submit Notes

The config file option 'submit' was used.
numactl was used to bind copies to the cores

Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run

Platform Notes

BIOS configuration:
Power Regulator set to Static High Performance Mode
Power Profile set to Maximum Performance
Thermal Configuration set to Increased Cooling



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECfp_rate2006 = 201

ProLiant ML370 G6
(3.2 GHz, Intel Xeon W5580)

SPECfp_rate_base2006 = 195

CPU2006 license: 3

Test date: Apr-2009

Test sponsor: Hewlett-Packard Company

Hardware Availability: Apr-2009

Tested by: Hewlett-Packard Company

Software Availability: Feb-2009

General Notes

The HP ProLiant DL370 G6 (Intel Xeon W5580) and the HP ProLiant ML370 G6 (Intel Xeon W5580) models are electronically equivalent. The results have been measured on a HP ProLiant ML370 G6 (Intel Xeon W5580) model.

Base Compiler Invocation

C benchmarks:

icc

C++ benchmarks:

icpc

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:

-xSSE4.2 -ipo -O3 -no-prec-div -static

C++ benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -static

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECfp_rate2006 = 201

ProLiant ML370 G6
(3.2 GHz, Intel Xeon W5580)

SPECfp_rate_base2006 = 195

CPU2006 license: 3

Test date: Apr-2009

Test sponsor: Hewlett-Packard Company

Hardware Availability: Apr-2009

Tested by: Hewlett-Packard Company

Software Availability: Feb-2009

Base Optimization Flags (Continued)

Fortran benchmarks:

`-xSSE4.2 -ipo -O3 -no-prec-div -static`

Benchmarks using both Fortran and C:

`-xSSE4.2 -ipo -O3 -no-prec-div -static`

Peak Compiler Invocation

C benchmarks (except as noted below):

`icc`

`482.sphinx3: icc -m32`

C++ benchmarks (except as noted below):

`icpc`

`450.soplex: icpc -m32`

Fortran benchmarks:

`ifort`

Benchmarks using both Fortran and C:

`icc ifort`

Peak 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`
 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`



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECfp_rate2006 = 201

ProLiant ML370 G6
(3.2 GHz, Intel Xeon W5580)

SPECfp_rate_base2006 = 195

CPU2006 license: 3

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Apr-2009

Hardware Availability: Apr-2009

Software Availability: Feb-2009

Peak Optimization Flags

C benchmarks:

433.milc: basepeak = yes

470.lbm: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch
-auto-ilp32

482.sphinx3: -xSSE4.2 -ipo -O3 -no-prec-div -static -unroll2

C++ benchmarks:

444.namd: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-fno-alias -auto-ilp32

447.dealII: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-unroll2 -ansi-alias -scalar-rep-

450.soplex: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-opt-malloc-options=3

453.povray: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-unroll4 -ansi-alias

Fortran benchmarks:

410.bwaves: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

416.gamess: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-unroll2 -Ob0 -ansi-alias -scalar-rep-

434.zeusmp: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)

437.leslie3d: basepeak = yes

459.GemsFDTD: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-unroll2 -Ob0 -opt-prefetch

465.tonto: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-unroll4 -auto

Benchmarks using both Fortran and C:

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECfp_rate2006 = 201

ProLiant ML370 G6
(3.2 GHz, Intel Xeon W5580)

SPECfp_rate_base2006 = 195

CPU2006 license: 3

Test date: Apr-2009

Test sponsor: Hewlett-Packard Company

Hardware Availability: Apr-2009

Tested by: Hewlett-Packard Company

Software Availability: Feb-2009

Peak Optimization Flags (Continued)

435.gromacs: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-opt-prefetch -auto-ilp32

436.cactusADM: basepeak = yes

454.calculix: -xSSE4.2 -ipo -O3 -no-prec-div -static -auto-ilp32

481.wrf: basepeak = yes

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/HP-Intel-Linux-Settings-flags.20090710.html>

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-fp-linux64-revA.20090710.13.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2006/flags/HP-Intel-Linux-Settings-flags.20090710.xml>

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-fp-linux64-revA.20090710.13.xml>

SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2006 v1.1.
Report generated on Wed Jul 23 00:31:59 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 26 May 2009.