SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

ProLiant DL360 G5
(3.33 GHz, Intel Xeon processor X5260)

$SPECfp^{®}2006 =$ 24.3

$SPECfp\_base2006 =$ 20.9

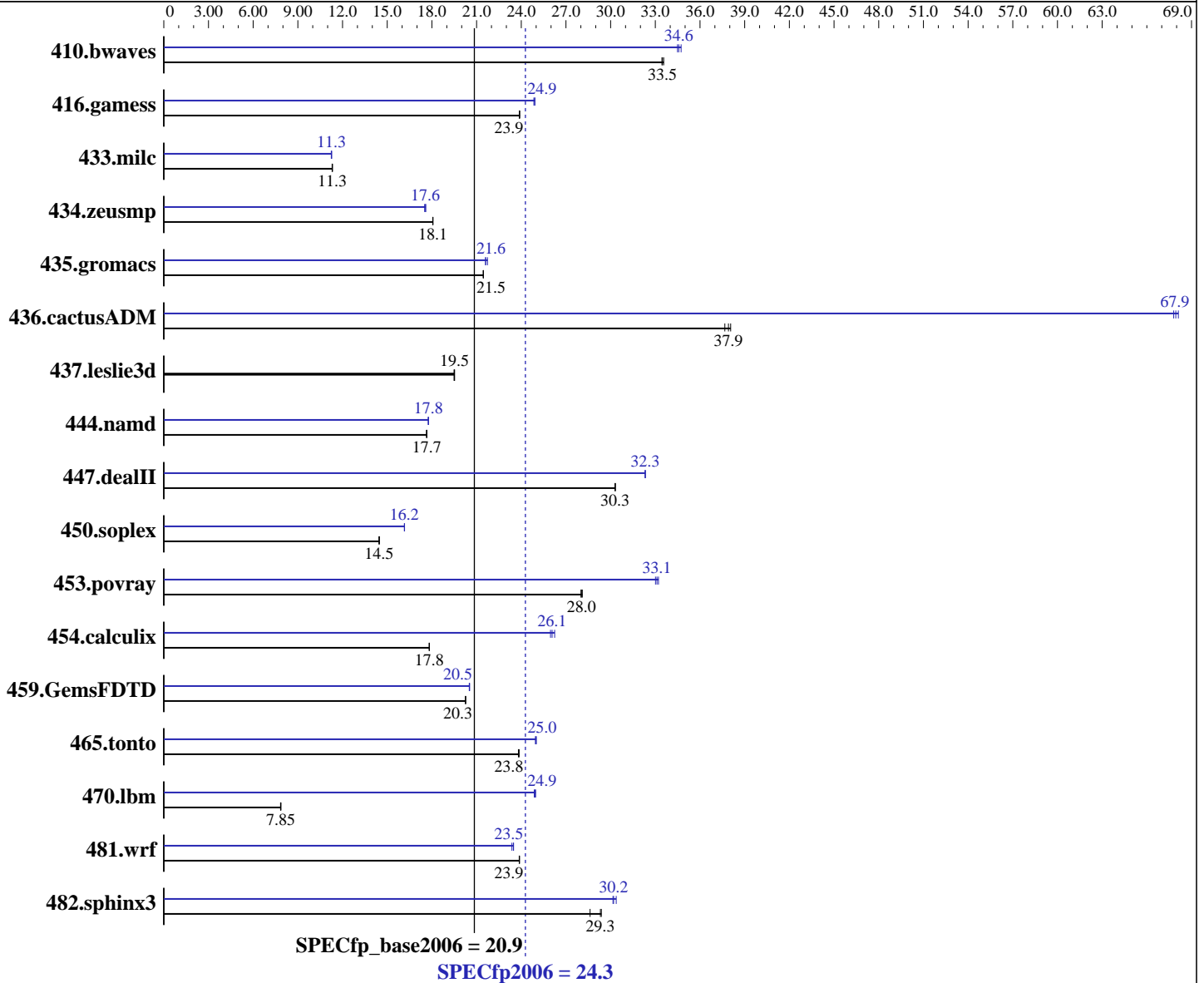|	
CPU2006 license: 3	**Test date:** Jan-2008
Test sponsor: Hewlett-Packard Company	**Hardware Availability:** Jan-2008
Tested by: Hewlett-Packard Company	**Software Availability:** Nov-2007

Benchmark	Blue (peak)	Black (base)
410.bwaves	34.6	33.5
416.gamess	24.9	23.9
433.milc	11.3	11.3
434.zeusmp	17.6	18.1
435.gromacs	21.6	21.5
436.cactusADM	67.9	37.9
437.leslie3d		19.5
444.namd	17.8	17.7
447.dealII	32.3	30.3
450.soplex	16.2	14.5
453.povray	33.1	28.0
454.calculix	26.1	17.8
459.GemsFDTD	20.5	20.3
465.tonto	25.0	23.8
470.lbm	24.9	7.85
481.wrf	23.5	23.9
482.sphinx3	30.2	29.3

SPECfp_base2006 = 20.9

SPECfp2006 = 24.3

Hardware

CPU Name:	Intel Xeon X5260
CPU Characteristics:	3.33 GHz, 6 MB L2 shared, 1333 MHz system bus
CPU MHz:	3333
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1,2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	6 MB I+D on chip per chip

Continued on next page

Software

Operating System:	SUSE Linux Enterprise Server 10 (x86_64) SP1 Kernel 2.6.16.46-0.12-smp
Compiler:	Intel C++ Compiler for applications running on IA-32 and Intel 64, Version 10.1 Build 20070913 Package ID: l_cc_p_10.1.008 Intel Fortran Compiler for applications running on IA-32 and Intel 64, Version 10.1 Build 20070913 Package ID: l_cc_p_10.1.008
Auto Parallel:	Yes
File System:	ext2

Continued on next page

SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

ProLiant DL360 G5
(3.33 GHz, Intel Xeon processor X5260)

SPECfp2006 =	24.3
SPECfp_base2006 =	20.9

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

Test date: Jan-2008
Hardware Availability: Jan-2008
Software Availability: Nov-2007

L3 Cache:	None	System State:	Multi-user run level 3
Other Cache:	None	Base Pointers:	64-bit
Memory:	16 GB (8x2 GB PC2-5300F CL5)	Peak Pointers:	32/64-bit
Disk Subsystem:	1x72 GB 15 K SAS	Other Software:	binutils-2.17.50
Other Hardware:	None		

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	406	33.4	405	33.6	**406**	**33.5**	394	34.5	391	34.7	**393**	**34.6**
416.gamess	820	23.9	**820**	**23.9**	819	23.9	**786**	**24.9**	788	24.8	786	24.9
433.milc	**811**	**11.3**	812	11.3	811	11.3	816	11.2	**815**	**11.3**	815	11.3
434.zeusmp	504	18.1	504	18.1	**504**	**18.1**	517	17.6	**518**	**17.6**	520	17.5
435.gromacs	333	21.4	**333**	**21.5**	333	21.5	**330**	**21.6**	331	21.6	329	21.7
436.cactusADM	**315**	**37.9**	314	38.1	317	37.7	176	67.8	**176**	**67.9**	175	68.1
437.leslie3d	482	19.5	**482**	**19.5**	482	19.5	482	19.5	**482**	**19.5**	482	19.5
444.namd	455	17.6	**454**	**17.7**	454	17.7	452	17.8	**452**	**17.8**	451	17.8
447.dealII	378	30.3	377	30.3	**378**	**30.3**	**354**	**32.3**	354	32.3	354	32.3
450.soplex	576	14.5	577	14.4	**577**	**14.5**	516	16.2	**516**	**16.2**	516	16.2
453.povray	190	28.0	**190**	**28.0**	189	28.1	**161**	**33.1**	161	33.0	160	33.2
454.calculix	463	17.8	463	17.8	**463**	**17.8**	318	26.0	**316**	**26.1**	314	26.2
459.GemsFDTD	524	20.3	**524**	**20.3**	524	20.3	517	20.5	**517**	**20.5**	517	20.5
465.tonto	413	23.9	**413**	**23.8**	413	23.8	393	25.0	**394**	**25.0**	394	25.0
470.lbm	**1751**	**7.85**	1753	7.84	1746	7.87	**551**	**24.9**	550	25.0	552	24.9
481.wrf	468	23.9	468	23.9	**468**	**23.9**	476	23.5	478	23.4	**476**	**23.5**
482.sphinx3	681	28.6	**665**	**29.3**	663	29.4	646	30.2	**645**	**30.2**	642	30.4

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

Operating System Notes

```
'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run
OMP_NUM_THREADS set to number of cores
KMP_AFFINITY set to physical,0
KMP_STACKSIZE set to 200M
```

Platform Notes

```
BIOS configuration:
  Power Regulator set to Static High Performance Mode
```

SPEC CFP2006 Result
Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

ProLiant DL360 G5
(3.33 GHz, Intel Xeon processor X5260)

SPECfp2006 =   24.3

SPECfp_base2006 =   20.9

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

Test date: Jan-2008
Hardware Availability: Jan-2008
Software Availability: Nov-2007

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:
    -fast -parallel

C++ benchmarks:
    -fast -parallel

Fortran benchmarks:
    -fast -parallel

Benchmarks using both Fortran and C:
    -fast -parallel

Hewlett-Packard Company

ProLiant DL360 G5
(3.33 GHz, Intel Xeon processor X5260)

$SPECfp2006 =$ 24.3

$SPECfp\_base2006 =$ 20.9

CPU2006 license: 3

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Jan-2008

Hardware Availability: Jan-2008

Software Availability: Nov-2007

Peak Compiler Invocation

C benchmarks (except as noted below):
```
/opt/intel/cc/10.1.008/bin/icc -L/opt/intel/cc/10.1.008/lib
-I/opt/intel/cc/10.1.008/include
```

     433.milc: `icc`

C++ benchmarks (except as noted below):
```
icpc
```

     450.soplex: `/opt/intel/cc/10.1.008/bin/icpc -L/opt/intel/cc/10.1.008/lib`
                `-I/opt/intel/cc/10.1.008/include`

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`
     481.wrf: `-DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX`

Peak Optimization Flags

C benchmarks:

     433.milc: `-prof-gen(pass 1) -prof-use(pass 2) -fast -fno-alias`
           `-auto-ilp32`

     470.lbm: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2`
           `-scalar-rep- -prefetch -opt-malloc-options=3`

Hewlett-Packard Company

ProLiant DL360 G5
(3.33 GHz, Intel Xeon processor X5260)

$SPECfp2006 =$ 24.3

$SPECfp\_base2006 =$ 20.9

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

Test date: Jan-2008
Hardware Availability: Jan-2008
Software Availability: Nov-2007

Peak Optimization Flags (Continued)

482.sphinx3: `-fast -unroll2`

C++ benchmarks:

444.namd: `-prof-gen(pass 1) -prof-use(pass 2) -fast -fno-alias -auto-ilp32`

447.dealII: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -ansi-alias -scalar-rep-`

450.soplex: `-prof-gen(pass 1) -prof-use(pass 2) -fast -opt-malloc-options=3`

453.povray: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4 -ansi-alias`

Fortran benchmarks:

410.bwaves: `-fast -prefetch -parallel`

416.gamess: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -Ob0 -ansi-alias -scalar-rep-`

434.zeusmp: `-prof-gen(pass 1) -prof-use(pass 2) -fast`

437.leslie3d: basepeak = yes

459.GemsFDTD: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -Ob0 -prefetch -parallel`

465.tonto: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4 -auto`

Benchmarks using both Fortran and C:

435.gromacs: `-prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch -auto-ilp32`

436.cactusADM: `-prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -prefetch -parallel -auto-ilp32`

454.calculix: `-fast -unroll-aggressive -auto-ilp32`

481.wrf: `-fast -parallel -prefetch -auto-ilp32`

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/HP-Intel-ic10.1-linux-fp-flags.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/HP-Intel-ic10.1-linux-fp-flags.xml

SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

ProLiant DL360 G5
(3.33 GHz, Intel Xeon processor X5260)

SPECfp2006 =	24.3
SPECfp_base2006 =	20.9

CPU2006 license: 3

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Jan-2008

Hardware Availability: Jan-2008

Software Availability: Nov-2007

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 v1.0.
Report generated on Tue Jul 22 16:03:22 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 23 January 2008.