



# SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Hewlett-Packard Company

SPECfp®\_rate2006 = 52.8

ProLiant DL580 G4  
(3.2 GHz, Intel Xeon processor 7130M)

SPECfp\_rate\_base2006 = 51.1

CPU2006 license: 3

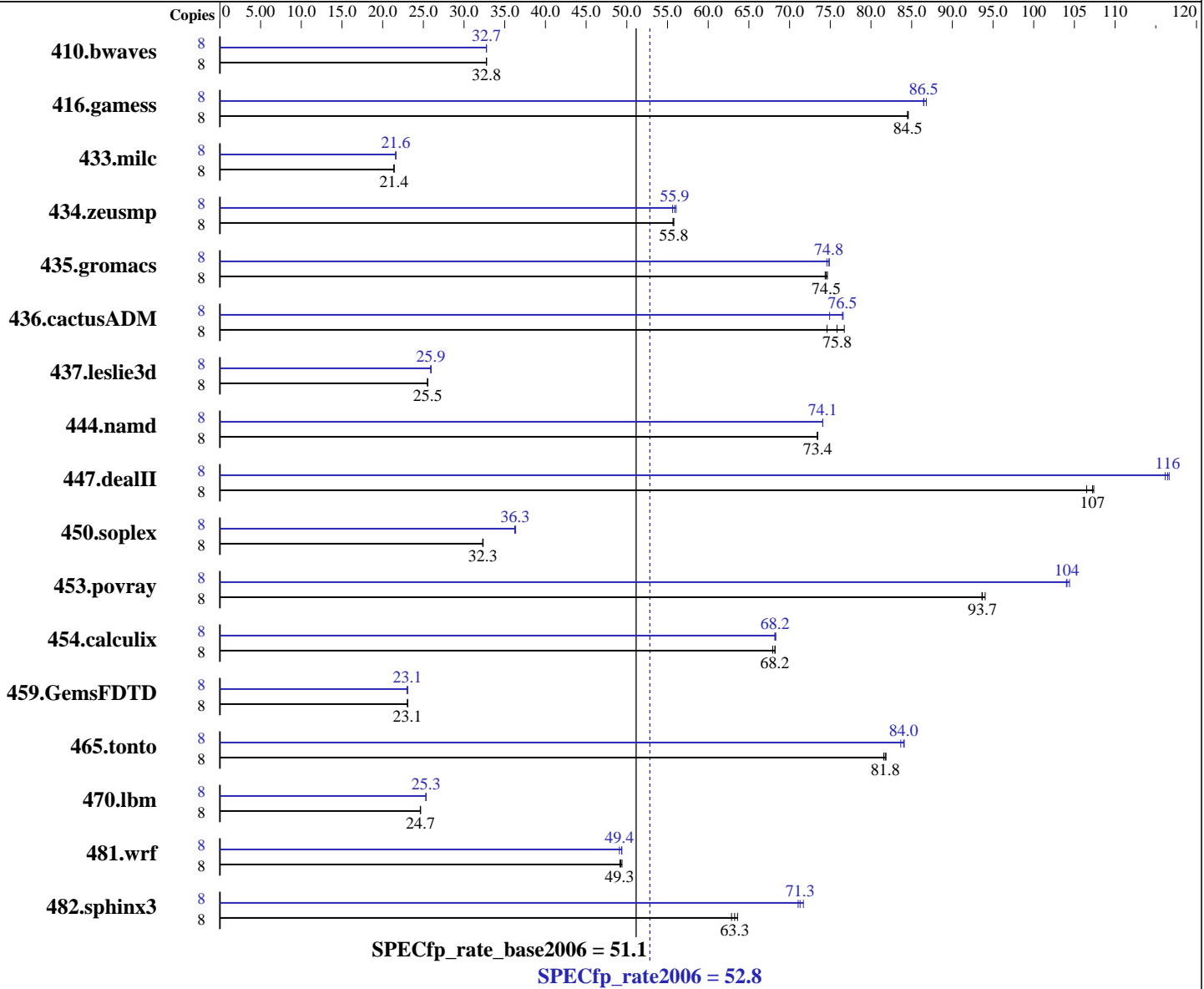
Test date: Aug-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Aug-2006

Tested by: Hewlett-Packard Company

Software Availability: May-2007



### Hardware

CPU Name: Intel Xeon 7130M  
 CPU Characteristics: 3.2 GHz, 800 MHz system bus  
 CPU MHz: 3200  
 FPU: Integrated  
 CPU(s) enabled: 8 cores, 4 chips, 2 cores/chip  
 CPU(s) orderable: 1,2,4 chips  
 Primary Cache: 12 K micro-ops I + 16 KB D on chip per core  
 Secondary Cache: 1 MB I+D on chip per core

Continued on next page

### Software

Operating System: SuSE LinuxEnterprise Server 10 (x86\_64)  
 kernel 2.6.16.21-0.8-smp  
 Compiler: Intel C++ Compiler for IA32/EM64T  
 applications, Version 10.0  
 Build 20070426 Package ID: l\_cc\_p\_10.0.023  
 Intel Fortran Compiler for applications  
 running on IA32/Intel 64, Version 10.0  
 Build 20070426 Package ID: l\_fc\_p\_10.0.023  
 Auto Parallel: No

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Hewlett-Packard Company

SPECfp\_rate2006 = 52.8

ProLiant DL580 G4  
(3.2 GHz, Intel Xeon processor 7130M)

SPECfp\_rate\_base2006 = 51.1

CPU2006 license: 3

Test date: Aug-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Aug-2006

Tested by: Hewlett-Packard Company

Software Availability: May-2007

L3 Cache: 8 MB I+D on chip per chip  
Other Cache: None  
Memory: 32 GB (16x2 GB PC2-3200R)  
Disk Subsystem: 1x72 GB 15 K SAS  
Other Hardware: None

File System: ext2  
System State: Multi-user run level 3  
Base Pointers: 64-bit  
Peak Pointers: 32/64-bit  
Other Software: None

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	8	3321	32.7	<u>3319</u>	<u>32.8</u>	3318	32.8	8	<u>3320</u>	<u>32.7</u>	3318	32.8	3321	32.7
416.gamess	8	1852	84.6	<u>1853</u>	<u>84.5</u>	1854	84.5	8	1804	86.8	1811	86.5	<u>1811</u>	<u>86.5</u>
433.milc	8	<u>3433</u>	<u>21.4</u>	3431	21.4	3434	21.4	8	<u>3398</u>	<u>21.6</u>	3399	21.6	3398	21.6
434.zeusmp	8	1308	55.7	<u>1306</u>	<u>55.8</u>	1305	55.8	8	1299	56.1	1309	55.6	<u>1303</u>	<u>55.9</u>
435.gromacs	8	768	74.4	<u>767</u>	<u>74.5</u>	765	74.7	8	766	74.6	763	74.9	<u>763</u>	<u>74.8</u>
436.cactusADM	8	1246	76.7	<u>1261</u>	<u>75.8</u>	1281	74.6	8	1248	76.6	1276	74.9	<u>1250</u>	<u>76.5</u>
437.leslie3d	8	<u>2945</u>	<u>25.5</u>	2942	25.6	2950	25.5	8	2901	25.9	2899	25.9	<u>2901</u>	<u>25.9</u>
444.namd	8	<u>874</u>	<u>73.4</u>	874	73.4	873	73.5	8	<u>866</u>	<u>74.1</u>	866	74.1	866	74.1
447.dealII	8	852	107	859	107	<u>854</u>	<u>107</u>	8	785	117	788	116	<u>786</u>	<u>116</u>
450.soplex	8	<u>2065</u>	<u>32.3</u>	2062	32.3	2065	32.3	8	1836	36.3	<u>1839</u>	<u>36.3</u>	1842	36.2
453.povray	8	455	93.6	453	94.0	<u>454</u>	<u>93.7</u>	8	409	104	408	104	<u>409</u>	<u>104</u>
454.calculix	8	967	68.2	972	67.9	<u>968</u>	<u>68.2</u>	8	<u>967</u>	<u>68.2</u>	966	68.3	968	68.2
459.GemsFDTD	8	3682	23.1	3680	23.1	<u>3681</u>	<u>23.1</u>	8	<u>3681</u>	<u>23.1</u>	3693	23.0	3680	23.1
465.tonto	8	965	81.6	962	81.9	<u>963</u>	<u>81.8</u>	8	936	84.1	941	83.7	<u>937</u>	<u>84.0</u>
470.lbm	8	4464	24.6	4458	24.7	<u>4459</u>	<u>24.7</u>	8	4342	25.3	4340	25.3	<u>4340</u>	<u>25.3</u>
481.wrf	8	1808	49.4	<u>1814</u>	<u>49.3</u>	1818	49.2	8	<u>1810</u>	<u>49.4</u>	1820	49.1	1809	49.4
482.sphinx3	8	<u>2465</u>	<u>63.3</u>	2451	63.6	2480	62.9	8	2175	71.7	<u>2187</u>	<u>71.3</u>	2195	71.0

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

## Platform Notes

BIOS configuration:  
Power Regulator Disabled  
Adjacent Sector Prefetch Enabled  
Hardware Prefetcher Enabled  
Hyper-Threading Technology Disabled



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Hewlett-Packard Company**

**SPECfp\_rate2006 = 52.8**

ProLiant DL580 G4  
(3.2 GHz, Intel Xeon processor 7130M)

**SPECfp\_rate\_base2006 = 51.1**

**CPU2006 license:** 3

**Test date:** Aug-2007

**Test sponsor:** Hewlett-Packard Company

**Hardware Availability:** Aug-2006

**Tested by:** Hewlett-Packard Company

**Software Availability:** May-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:

-xP -ipo -O3 -static -no-prec-div

C++ benchmarks:

-xP -ipo -O3 -static -no-prec-div

Fortran benchmarks:

-xP -ipo -O3 -static -no-prec-div

Benchmarks using both Fortran and C:

-xP -ipo -O3 -static -no-prec-div



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Hewlett-Packard Company**

**SPECfp\_rate2006 = 52.8**

ProLiant DL580 G4  
(3.2 GHz, Intel Xeon processor 7130M)

**SPECfp\_rate\_base2006 = 51.1**

**CPU2006 license:** 3

**Test date:** Aug-2007

**Test sponsor:** Hewlett-Packard Company

**Hardware Availability:** Aug-2006

**Tested by:** Hewlett-Packard Company

**Software Availability:** May-2007

## Peak Compiler Invocation

C benchmarks (except as noted below):

```
/opt/intel/cc/10.0.023/bin/icc -L/opt/intel/cc/10.0.023/lib
-I/opt/intel/cc/10.0.023/include
```

433.milc: icc

C++ benchmarks (except as noted below):

icpc

```
450.soplex: /opt/intel/cc/10.0.023/bin/icpc -L/opt/intel/cc/10.0.023/lib
-I/opt/intel/cc/10.0.023/include
```

Fortran benchmarks (except as noted below):

ifort

```
437.leslie3d: /opt/intel/fc/10.0.023/bin/ifort -L/opt/intel/fc/10.0.023/lib
-I/opt/intel/fc/10.0.023/include
```

Benchmarks using both Fortran and C:

icc ifort

## Peak Portability Flags

Same as Base Portability Flags

## Peak Optimization Flags

C benchmarks:

```
433.milc: -prof-gen(pass 1) -prof-use(pass 2) -xP -ipo -O3 -static
-no-prec-div -fno-alias
```

```
470.lbm: -prof-gen(pass 1) -prof-use(pass 2) -xP -ipo -O3 -static
-no-prec-div -unroll2 -no-scalar-rep -prefetch
```

```
482.sphinx3: -xP -ipo -O3 -static -no-prec-div -unroll2
```

C++ benchmarks:

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

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

Continued on next page



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

**Hewlett-Packard Company**

**SPECfp\_rate2006 = 52.8**

ProLiant DL580 G4  
(3.2 GHz, Intel Xeon processor 7130M)

**SPECfp\_rate\_base2006 = 51.1**

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

**Test date:** Aug-2007  
**Hardware Availability:** Aug-2006  
**Software Availability:** May-2007

## Peak Optimization Flags (Continued)

450.soplex: -prof-gen(pass 1) -prof-use(pass 2) -xP -ipo -O3 -static  
-no-prec-div

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

### Fortran benchmarks:

410.bwaves: -xP -ipo -O3 -static -no-prec-div

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

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

437.leslie3d: Same as 434.zeusmp

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

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

### Benchmarks using both Fortran and C:

435.gromacs: -prof-gen(pass 1) -prof-use(pass 2) -xP -ipo -O3 -static  
-no-prec-div -fno-alias

436.cactusADM: -prof-gen(pass 1) -prof-use(pass 2) -xP -ipo -O3 -static  
-no-prec-div -unroll2 -auto-ilp32

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

481.wrf: Same as 454.calculix

The flags file that was used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/hp-ic10-flags.html>

You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/hp-ic10-flags.xml>



# SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Hewlett-Packard Company

ProLiant DL580 G4  
(3.2 GHz, Intel Xeon processor 7130M)

SPECfp\_rate2006 = 52.8

SPECfp\_rate\_base2006 = 51.1

**CPU2006 license:** 3

**Test sponsor:** Hewlett-Packard Company

**Tested by:** Hewlett-Packard Company

**Test date:** Aug-2007

**Hardware Availability:** Aug-2006

**Software Availability:** May-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](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.0.  
Report generated on Tue Jul 22 13:56:46 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 2 October 2007.