



# SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Hewlett-Packard Company

ProLiant DL580 G4  
(3.4 GHz, Intel Xeon processor 7140M)

**SPECint\_rate2006 = 83.1**

**SPECint\_rate\_base2006 = 77.2**

CPU2006 license: 3

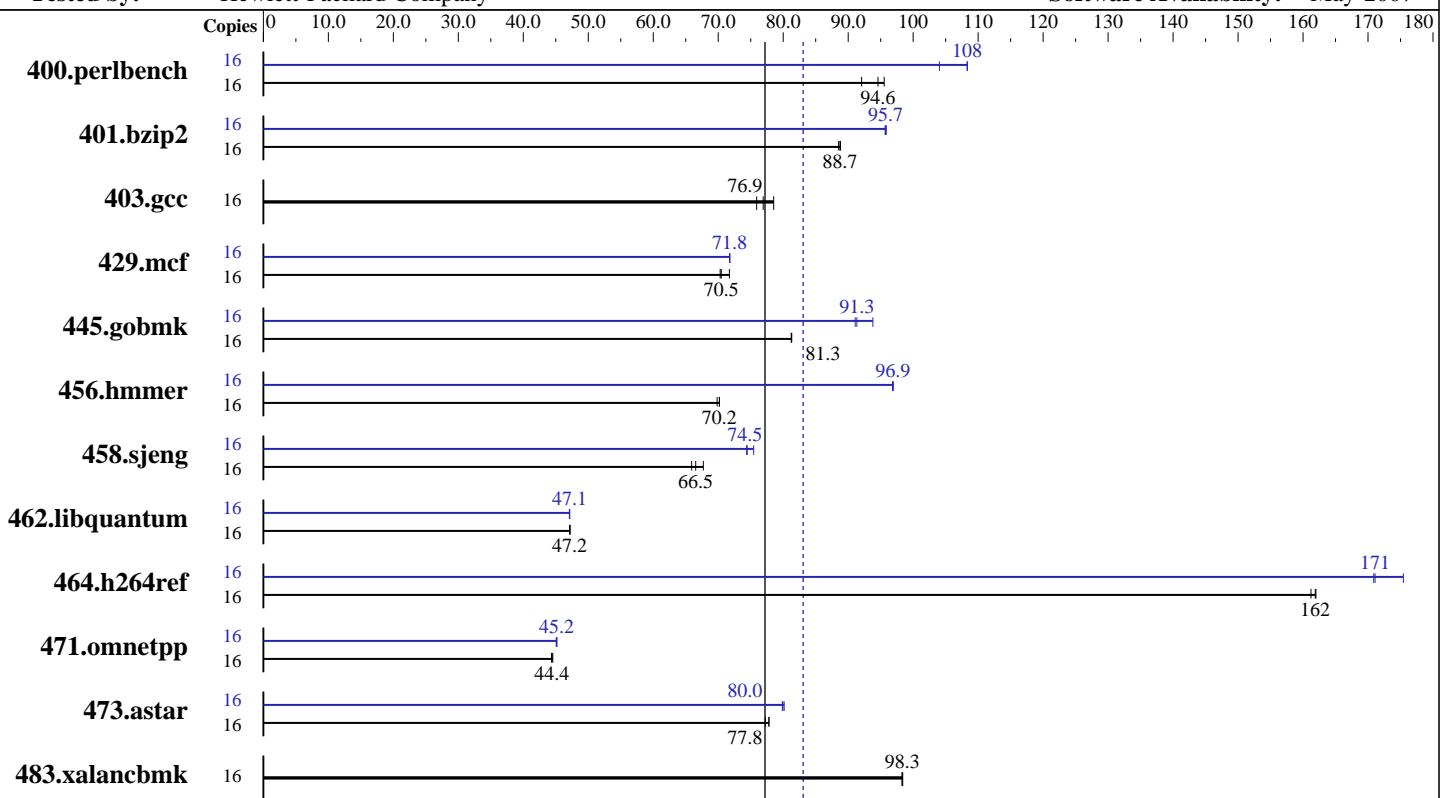
Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Jul-2007

Hardware Availability: Aug-2006

Software Availability: May-2007



**SPECint\_rate\_base2006 = 77.2**

**SPECint\_rate2006 = 83.1**

### Hardware

CPU Name: Intel Xeon 7140M  
CPU Characteristics: 3.4 GHz, 800 MHz system bus  
CPU MHz: 3400  
FPU: Integrated  
CPU(s) enabled: 8 cores, 4 chips, 2 cores/chip, 2 threads/core  
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  
L3 Cache: 16 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

### Software

Operating System: SuSE Linux Enterprise Server 10 (x86\_64)  
Compiler: kernel 2.6.16.21-0.8-smp  
Auto Parallel: Intel C++ Compiler for IA32/EM64T  
File System: applications, Version 10.0  
System State: Build 20070426 Package ID: l\_cc\_p\_10.0.023  
Base Pointers: No  
Peak Pointers: ext2  
Other Software: Multi-user run level 3  
32-bit  
32/64-bit  
MicroQuill SmartHeap 8.1 libraries



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Hewlett-Packard Company

ProLiant DL580 G4  
(3.4 GHz, Intel Xeon processor 7140M)

**SPECint\_rate2006 = 83.1**

**SPECint\_rate\_base2006 = 77.2**

CPU2006 license: 3

Test date: Jul-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Aug-2006

Tested by: Hewlett-Packard Company

Software Availability: May-2007

## Results Table

| Benchmark      | Base   |             |             |             |             |             |             | Peak   |             |             |             |             |             |             |
|----------------|--------|-------------|-------------|-------------|-------------|-------------|-------------|--------|-------------|-------------|-------------|-------------|-------------|-------------|
|                | Copies | Seconds     | Ratio       | Seconds     | Ratio       | Seconds     | Ratio       | Copies | Seconds     | Ratio       | Seconds     | Ratio       | Seconds     | Ratio       |
| 400.perlbench  | 16     | 1636        | 95.5        | <b>1653</b> | <b>94.6</b> | 1698        | 92.1        | 16     | <b>1443</b> | <b>108</b>  | 1503        | 104         | 1443        | 108         |
| 401.bzip2      | 16     | <b>1740</b> | <b>88.7</b> | 1744        | 88.5        | 1738        | 88.8        | 16     | <b>1613</b> | <b>95.7</b> | 1611        | 95.9        | 1614        | 95.7        |
| 403.gcc        | 16     | <b>1674</b> | <b>76.9</b> | 1697        | 75.9        | 1640        | 78.5        | 16     | <b>1674</b> | <b>76.9</b> | 1697        | 75.9        | 1640        | 78.5        |
| 429.mcf        | 16     | 2035        | 71.7        | 2076        | 70.3        | <b>2071</b> | <b>70.5</b> | 16     | 2034        | 71.7        | 2033        | 71.8        | <b>2033</b> | <b>71.8</b> |
| 445.gobmk      | 16     | 2064        | 81.3        | 2066        | 81.2        | <b>2065</b> | <b>81.3</b> | 16     | <b>1838</b> | <b>91.3</b> | 1789        | 93.8        | 1843        | 91.1        |
| 456.hmmer      | 16     | 2138        | 69.8        | 2127        | 70.2        | <b>2127</b> | <b>70.2</b> | 16     | 1542        | 96.8        | <b>1541</b> | <b>96.9</b> | 1540        | 96.9        |
| 458.sjeng      | 16     | 2860        | 67.7        | 2937        | 65.9        | <b>2910</b> | <b>66.5</b> | 16     | 2603        | 74.4        | <b>2600</b> | <b>74.5</b> | 2566        | 75.5        |
| 462.libquantum | 16     | <b>7030</b> | <b>47.2</b> | 7024        | 47.2        | 7033        | 47.1        | 16     | <b>7035</b> | <b>47.1</b> | 7033        | 47.1        | 7041        | 47.1        |
| 464.h264ref    | 16     | 2196        | 161         | 2186        | 162         | <b>2187</b> | <b>162</b>  | 16     | <b>2070</b> | <b>171</b>  | 2072        | 171         | 2018        | 175         |
| 471.omnetpp    | 16     | 2255        | 44.3        | 2245        | 44.5        | <b>2251</b> | <b>44.4</b> | 16     | 2214        | 45.2        | 2219        | 45.1        | <b>2215</b> | <b>45.2</b> |
| 473.astar      | 16     | 1454        | 77.3        | <b>1444</b> | <b>77.8</b> | 1444        | 77.8        | 16     | 1401        | 80.1        | <b>1405</b> | <b>80.0</b> | 1406        | 79.9        |
| 483.xalancbmk  | 16     | 1123        | 98.3        | <b>1123</b> | <b>98.3</b> | 1122        | 98.4        | 16     | 1123        | 98.3        | <b>1123</b> | <b>98.3</b> | 1122        | 98.4        |

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  
'/usr/bin/taskset' used to bind processes to CPUs

## Platform Notes

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

## Base Compiler Invocation

C benchmarks:  
icc

C++ benchmarks:  
icpc

## Base Portability Flags

400.perlbench: -DSPEC\_CPU\_LINUX\_IA32

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Hewlett-Packard Company

ProLiant DL580 G4  
(3.4 GHz, Intel Xeon processor 7140M)

**SPECint\_rate2006 = 83.1**

**SPECint\_rate\_base2006 = 77.2**

**CPU2006 license:** 3

**Test date:** Jul-2007

**Test sponsor:** Hewlett-Packard Company

**Hardware Availability:** Aug-2006

**Tested by:** Hewlett-Packard Company

**Software Availability:** May-2007

## Base Portability Flags (Continued)

462.libquantum: -DSPEC\_CPU\_LINUX  
483.xalancbmk: -DSPEC\_CPU\_LINUX

## Base Optimization Flags

C benchmarks:

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

C++ benchmarks:

-xP -ipo -O3 -no-prec-div -Wl,-z,muldefs  
-L/cpu2006.1.0/SmartHeap\_8.1/lib -lsmartheap

## Base Other Flags

C benchmarks:

403.gcc: -Dalloca=\_alloca

## Peak Compiler Invocation

C benchmarks (except as noted below):

icc

401.bzip2: /opt/intel/cce/10.0.023/bin/icc  
-L/opt/intel/cce/10.0.023/lib  
-I/opt/intel/cce/10.0.023/include

456.hmmr: /opt/intel/cce/10.0.023/bin/icc  
-L/opt/intel/cce/10.0.023/lib  
-I/opt/intel/cce/10.0.023/include

C++ benchmarks:

icpc

## Peak Portability Flags

400.perlbench: -DSPEC\_CPU\_LINUX\_IA32  
401.bzip2: -DSPEC\_CPU\_LP64  
456.hmmr: -DSPEC\_CPU\_LP64  
462.libquantum: -DSPEC\_CPU\_LINUX  
483.xalancbmk: -DSPEC\_CPU\_LINUX



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Hewlett-Packard Company

ProLiant DL580 G4  
(3.4 GHz, Intel Xeon processor 7140M)

**SPECint\_rate2006 = 83.1**

**SPECint\_rate\_base2006 = 77.2**

**CPU2006 license:** 3

**Test sponsor:** Hewlett-Packard Company

**Tested by:** Hewlett-Packard Company

**Test date:** Jul-2007

**Hardware Availability:** Aug-2006

**Software Availability:** May-2007

## Peak Optimization Flags

C benchmarks:

400.perlbench: -prof-gen(pass 1) -prof-use(pass 2) -xP -ipo -O3  
-no-prec-div -ansi-alias -prefetch

401.bzip2: -prof-gen(pass 1) -prof-use(pass 2) -xP -ipo -O3  
-no-prec-div

403.gcc: basepeak = yes

429.mcf: -xP -ipo -O3 -static -no-prec-div -prefetch

445.gobmk: -prof-gen(pass 1) -prof-use(pass 2) -xP -O2 -ipo  
-no-prec\_div -ansi-alias

456.hmmer: -prof-gen(pass 1) -prof-use(pass 2) -xP -ipo -O3 -static  
-no-prec-div -unroll2 -ansi-alias

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

462.libquantum: Same as 458.sjeng

464.h264ref: Same as 456.hmmer

C++ benchmarks:

471.omnetpp: -prof-gen(pass 1) -prof-use(pass 2) -xP -O3 -ipo  
-no-prec\_div -ansi-alias -Wl,-z,muldefs  
-L/cpu2006.1.0/SmartHeap\_8.1/lib -lsmartheap

473.astar: Same as 471.omnetpp

483.xalancbmk: basepeak = yes

## Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=\_alloca

The flags file that was used to format this result can be browsed at  
<http://www.spec.org/cpu2006/flags/hp-ic10-flags.20090714.03.html>

You can also download the XML flags source by saving the following link:  
<http://www.spec.org/cpu2006/flags/hp-ic10-flags.20090714.03.xml>



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Hewlett-Packard Company

ProLiant DL580 G4  
(3.4 GHz, Intel Xeon processor 7140M)

**SPECint\_rate2006 = 83.1**

**SPECint\_rate\_base2006 = 77.2**

**CPU2006 license:** 3

**Test date:** Jul-2007

**Test sponsor:** Hewlett-Packard Company

**Hardware Availability:** Aug-2006

**Tested by:** Hewlett-Packard Company

**Software Availability:** May-2007

SPEC and SPECint 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 12:26:00 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 21 August 2007.