



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECint®_rate2006 = 26.7

Proliant DL365 (AMD Opteron 2220 SE)

SPECint_rate_base2006 = 24.1

CPU2006 license: 3

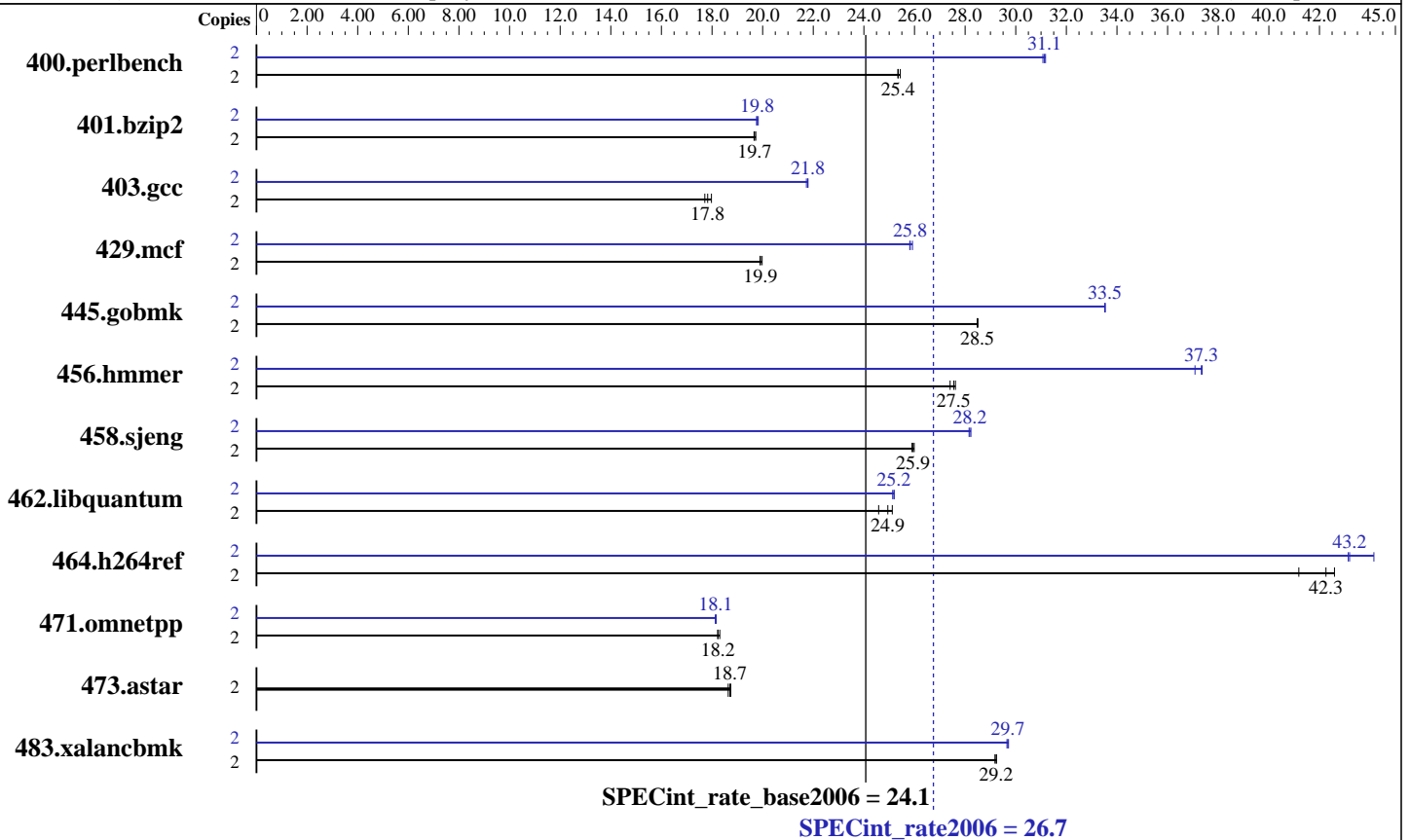
Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: May-2007

Hardware Availability: Jan-2007

Software Availability: Apr-2007



Hardware

CPU Name: AMD Opteron 2220 SE
 CPU Characteristics:
 CPU MHz: 2800
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip
 CPU(s) orderable: 1,2 chips
 Primary Cache: 64 KB I + 64 KB D on chip per core
 Secondary Cache: 1 MB I+D on chip per core
 L3 Cache: None
 Other Cache: None
 Memory: 16 GB (4x4 GB, PC2-5300P CL5)
 Disk Subsystem: 1x72 GB 10 K SAS
 Other Hardware: None

Software

Operating System: SuSE Linux Enterprise Server 10 (x86-64)
 SuSE kernel 2.6.16.21-0.8-smp
 Compiler: QLogic PathScale
 Compiler Suite, Release 3.0
 Auto Parallel: No
 File System: ext2
 System State: Multi-user, run level 3
 Base Pointers: 32/64-bit
 Peak Pointers: 32/64-bit
 Other Software: None



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECint_rate2006 = 26.7

Proliant DL365 (AMD Opteron 2220 SE)

SPECint_rate_base2006 = 24.1

CPU2006 license: 3

Test date: May-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Jan-2007

Tested by: Hewlett-Packard Company

Software Availability: Apr-2007

Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
|----------------|--------|------------|-------------|-------------|-------------|-------------|-------------|--------|------------|-------------|-------------|-------------|-------------|-------------|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 400.perlbench | 2 | 771 | 25.3 | <u>771</u> | <u>25.4</u> | 768 | 25.4 | 2 | <u>628</u> | <u>31.1</u> | 627 | 31.2 | 629 | 31.1 |
| 401.bzip2 | 2 | 982 | 19.7 | 978 | 19.7 | <u>981</u> | <u>19.7</u> | 2 | 973 | 19.8 | 977 | 19.8 | <u>975</u> | <u>19.8</u> |
| 403.gcc | 2 | <u>903</u> | <u>17.8</u> | 896 | 18.0 | 909 | 17.7 | 2 | 739 | 21.8 | 741 | 21.7 | <u>739</u> | <u>21.8</u> |
| 429.mcf | 2 | 913 | 20.0 | <u>916</u> | <u>19.9</u> | 917 | 19.9 | 2 | 707 | 25.8 | <u>706</u> | <u>25.8</u> | 704 | 25.9 |
| 445.gobmk | 2 | 736 | 28.5 | 737 | 28.5 | <u>737</u> | <u>28.5</u> | 2 | <u>626</u> | <u>33.5</u> | 626 | 33.5 | 626 | 33.5 |
| 456.hmmer | 2 | 681 | 27.4 | <u>677</u> | <u>27.5</u> | 676 | 27.6 | 2 | 503 | 37.1 | <u>500</u> | <u>37.3</u> | 499 | 37.4 |
| 458.sjeng | 2 | <u>933</u> | <u>25.9</u> | 934 | 25.9 | 931 | 26.0 | 2 | 857 | 28.2 | <u>859</u> | <u>28.2</u> | 860 | 28.2 |
| 462.libquantum | 2 | 1686 | 24.6 | <u>1661</u> | <u>24.9</u> | 1650 | 25.1 | 2 | 1649 | 25.1 | 1645 | 25.2 | <u>1645</u> | <u>25.2</u> |
| 464.h264ref | 2 | 1039 | 42.6 | 1075 | 41.2 | <u>1047</u> | <u>42.3</u> | 2 | 1026 | 43.1 | <u>1025</u> | <u>43.2</u> | 1002 | 44.2 |
| 471.omnetpp | 2 | 683 | 18.3 | <u>686</u> | <u>18.2</u> | 686 | 18.2 | 2 | 688 | 18.2 | 689 | 18.1 | <u>689</u> | <u>18.1</u> |
| 473.astar | 2 | 749 | 18.7 | <u>750</u> | <u>18.7</u> | 753 | 18.6 | 2 | 749 | 18.7 | <u>750</u> | <u>18.7</u> | 753 | 18.6 |
| 483.xalancbmk | 2 | 472 | 29.2 | <u>472</u> | <u>29.2</u> | 473 | 29.2 | 2 | <u>465</u> | <u>29.7</u> | 465 | 29.7 | 464 | 29.7 |

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

General Notes

Node interleaving is disabled
taskset utility used to bind CPU(s) to processes
ulimit -s unlimited set

Base Compiler Invocation

C benchmarks:
pathcc

C++ benchmarks:
pathCC

Base Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64
429.mcf: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
464.h264ref: -DSPEC_CPU_LP64

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECint_rate2006 = 26.7

Proliant DL365 (AMD Opteron 2220 SE)

SPECint_rate_base2006 = 24.1

CPU2006 license: 3

Test date: May-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Jan-2007

Tested by: Hewlett-Packard Company

Software Availability: Apr-2007

Base Portability Flags (Continued)

483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:

-Ofast -OPT:malloc_alg=1

C++ benchmarks:

-Ofast -m32 -L/cpu2006/amd514K8.lib/32 -lsmartheap

Peak Compiler Invocation

C benchmarks:

pathcc

C++ benchmarks:

pathCC

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
456.hmmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
464.h264ref: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -Ofast
-LNO:opt=0

401.bzip2: -O3 -LNO:ou_prod_max=10 -OPT:Ofast -OPT:alias=disjoint

403.gcc: -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -m32 -O3
-OPT:Ofast

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECint_rate2006 = 26.7

Proliant DL365 (AMD Opteron 2220 SE)

SPECint_rate_base2006 = 24.1

CPU2006 license: 3

Test date: May-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Jan-2007

Tested by: Hewlett-Packard Company

Software Availability: Apr-2007

Peak Optimization Flags (Continued)

429.mcf: -m32 -O3 -ipa -L/cpu2006/amd514K8.lib/32 -lsmartheap

445.gobmk: -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -O3
-OPT:alias=disjoint -LNO:simd=0 -LNO:minvariant=off
-WOPT:retype_expr=on

456.hmmer: -O2 -OPT:alias=disjoint -OPT:malloc_alg=1 -CG:cflow=0

458.sjeng: -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -O3
-IPA:plimit=50000 -IPA:pu_reorder=2

462.libquantum: -O3 -ipa -CG:local_fwd_sched=on -IPA:space=1000

464.h264ref: -fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -O3
-IPA:plimit=20000 -OPT:alias=disjoint -LNO:prefetch=0

C++ benchmarks:

471.omnetpp: -Ofast -CG:gcm=off -m32
-L/cpu2006/amd514K8.lib/32 -lsmartheap

473.astar: basepeak = yes

483.xalancbmk: -Ofast -m32 -OPT:unroll_times_max=8
-L/cpu2006/amd514K8.lib/32 -lsmartheap

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

http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.16.html

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

http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.16.xml

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.

Tested with SPEC CPU2006 v1.0.
Report generated on Tue Jul 22 11:03:15 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 12 June 2007.