



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

SPECint®_rate2006 = 1900

Express5800/A1080a-E (Intel Xeon E7-8870)

SPECint_rate_base2006 = 1790

CPU2006 license: 9006

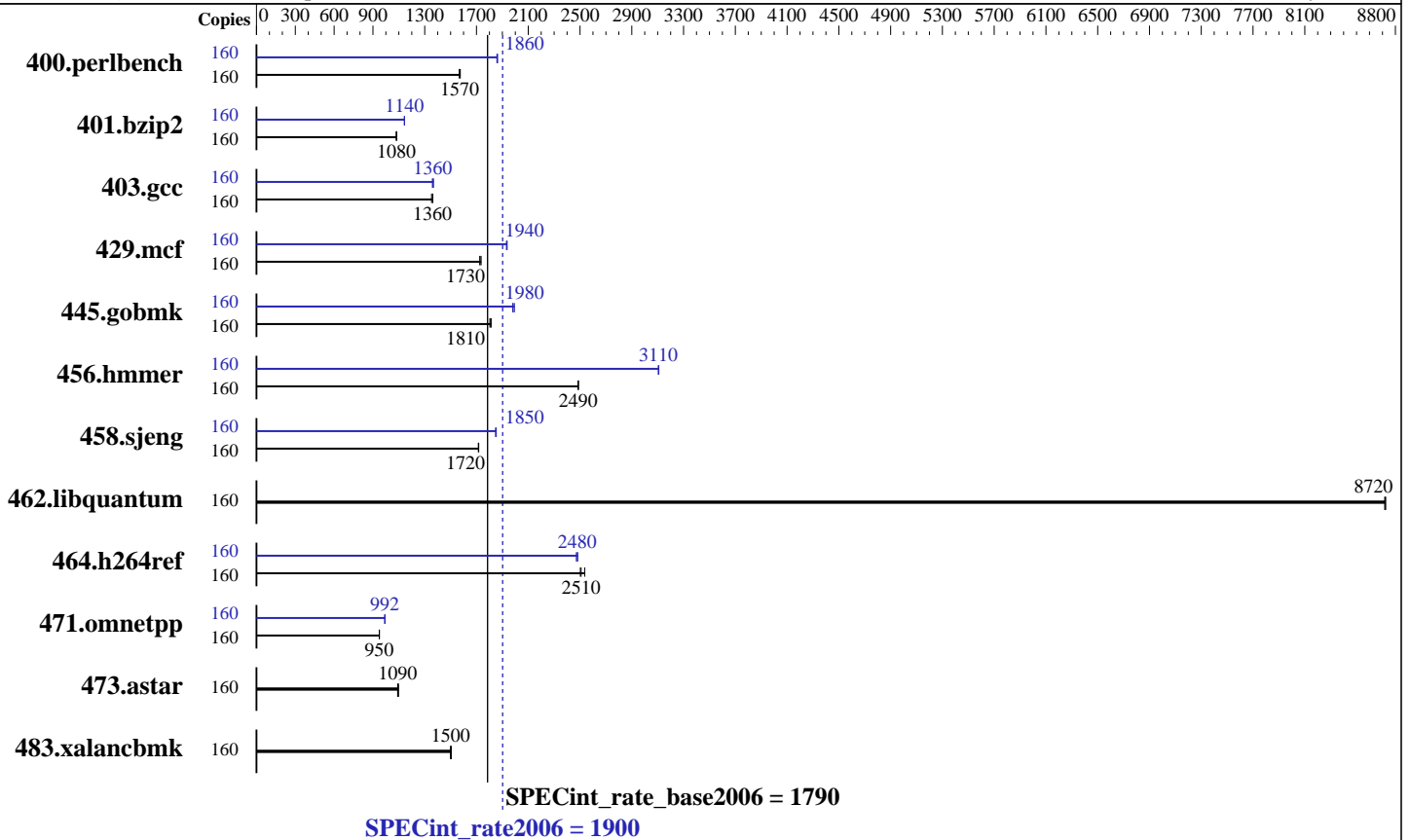
Test date: Aug-2011

Test sponsor: NEC Corporation

Hardware Availability: Nov-2011

Tested by: NEC Corporation

Software Availability: May-2011



Hardware

CPU Name: Intel Xeon E7-8870
 CPU Characteristics: Intel Turbo Boost Technology up to 2.80 GHz
 CPU MHz: 2400
 FPU: Integrated
 CPU(s) enabled: 80 cores, 8 chips, 10 cores/chip, 2 threads/core
 CPU(s) orderable: 8 chips
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 256 KB I+D on chip per core
 L3 Cache: 30 MB I+D on chip per chip
 Other Cache: None
 Memory: 512 GB (128 x 4 GB 2Rx4 PC3-8500R-7, ECC)
 Disk Subsystem: 2x300 GB SAS, 10000 RPM, RAID 0
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.1, Kernel 2.6.32-131.0.15.el6.x86_64 on an x86_64
 Compiler: C/C++: Version 12.0.4.191 of Intel Compiler XE for applications on IA-32 Build 20110427
 Auto Parallel: No
 File System: ext4
 System State: Run level 3 (multi-user)
 Base Pointers: 32-bit
 Peak Pointers: 32/64-bit
 Other Software: Microquill SmartHeap V9.01



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

SPECint_rate2006 = 1900

Express5800/A1080a-E (Intel Xeon E7-8870)

SPECint_rate_base2006 = 1790

CPU2006 license: 9006

Test date: Aug-2011

Test sponsor: NEC Corporation

Hardware Availability: Nov-2011

Tested by: NEC Corporation

Software Availability: May-2011

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	160	995	1570	993	1570	998	1570	160	839	1860	840	1860	841	1860
401.bzip2	160	1426	1080	1429	1080	1428	1080	160	1351	1140	1349	1140	1351	1140
403.gcc	160	947	1360	945	1360	952	1350	160	947	1360	946	1360	941	1370
429.mcf	160	846	1730	844	1730	841	1740	160	754	1940	755	1930	754	1940
445.gobmk	160	928	1810	926	1810	931	1800	160	842	1990	848	1980	846	1980
456.hammer	160	600	2490	600	2490	601	2490	160	481	3110	481	3110	480	3110
458.sjeng	160	1128	1720	1129	1710	1128	1720	160	1045	1850	1047	1850	1047	1850
462.libquantum	160	380	8720	380	8720	380	8720	160	380	8720	380	8720	380	8720
464.h264ref	160	1415	2500	1396	2540	1412	2510	160	1433	2470	1429	2480	1426	2480
471.omnetpp	160	1053	950	1053	950	1054	949	160	1009	991	1007	994	1008	992
473.astar	160	1023	1100	1030	1090	1028	1090	160	1023	1100	1030	1090	1028	1090
483.xalancbmk	160	734	1510	736	1500	736	1500	160	734	1510	736	1500	736	1500

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 stack size to unlimited prior to run
echo 1 > /proc/sys/vm/zone_reclaim_mode
Huge pages were not configured for this run

Platform Notes

ACPI Type set to Type 3 in BIOS
Patrol Scrubbing set to disabled in Maintenance Console

General Notes

Binaries were compiled on RHEL 5.6

Base Compiler Invocation

C benchmarks:
icc -m32

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

SPECint_rate2006 = 1900

Express5800/A1080a-E (Intel Xeon E7-8870)

SPECint_rate_base2006 = 1790

CPU2006 license: 9006

Test date: Aug-2011

Test sponsor: NEC Corporation

Hardware Availability: Nov-2011

Tested by: NEC Corporation

Software Availability: May-2011

Base Compiler Invocation (Continued)

C++ benchmarks:
icpc -m32

Base Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

C++ benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/opt/SmartHeap_9/lib -lsmartheap
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

Base Other Flags

C benchmarks:
403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):
icc -m32

401.bzip2: icc -m64

456.hmmer: icc -m64

458.sjeng: icc -m64

C++ benchmarks:
icpc -m32



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

SPECint_rate2006 = 1900

Express5800/A1080a-E (Intel Xeon E7-8870)

SPECint_rate_base2006 = 1790

CPU2006 license: 9006

Test date: Aug-2011

Test sponsor: NEC Corporation

Hardware Availability: Nov-2011

Tested by: NEC Corporation

Software Availability: May-2011

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
 401.bzip2: -DSPEC_CPU_LP64
 456.hmmer: -DSPEC_CPU_LP64
 458.sjeng: -DSPEC_CPU_LP64
 462.libquantum: -DSPEC_CPU_LINUX
 483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -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) -ansi-alias

401.bzip2: -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 -ansi-alias -auto-ilp32

403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div
 -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

429.mcf: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
 -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
 -ansi-alias -auto-ilp32

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2) -O2
 -ipo -no-prec-div -ansi-alias

456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32
 -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
 -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
 -unroll4 -auto-ilp32
 -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

462.libquantum: basepeak = yes

464.h264ref: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
 -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
 -unroll2 -ansi-alias

C++ benchmarks:

471.omnetpp: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
 -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
 -ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs
 -L/opt/SmartHeap_9/lib -lsmarheap

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

SPECint_rate2006 = 1900

Express5800/A1080a-E (Intel Xeon E7-8870)

SPECint_rate_base2006 = 1790

CPU2006 license: 9006

Test date: Aug-2011

Test sponsor: NEC Corporation

Hardware Availability: Nov-2011

Tested by: NEC Corporation

Software Availability: May-2011

Peak Optimization Flags (Continued)

473.astar: basepeak = yes

483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.20110705.html>

<http://www.spec.org/cpu2006/flags/NEC-platform-linux64-revF.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.20110705.xml>

<http://www.spec.org/cpu2006/flags/NEC-platform-linux64-revF.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 v1.1.

Report generated on Thu Jul 24 00:36:20 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 20 December 2011.