



SPEC[®] CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

SPECint[®]_rate2006 = 62.8

Express5800/R110d-1E (Intel Pentium G630)

SPECint_rate_base2006 = 60.4

CPU2006 license: 9006

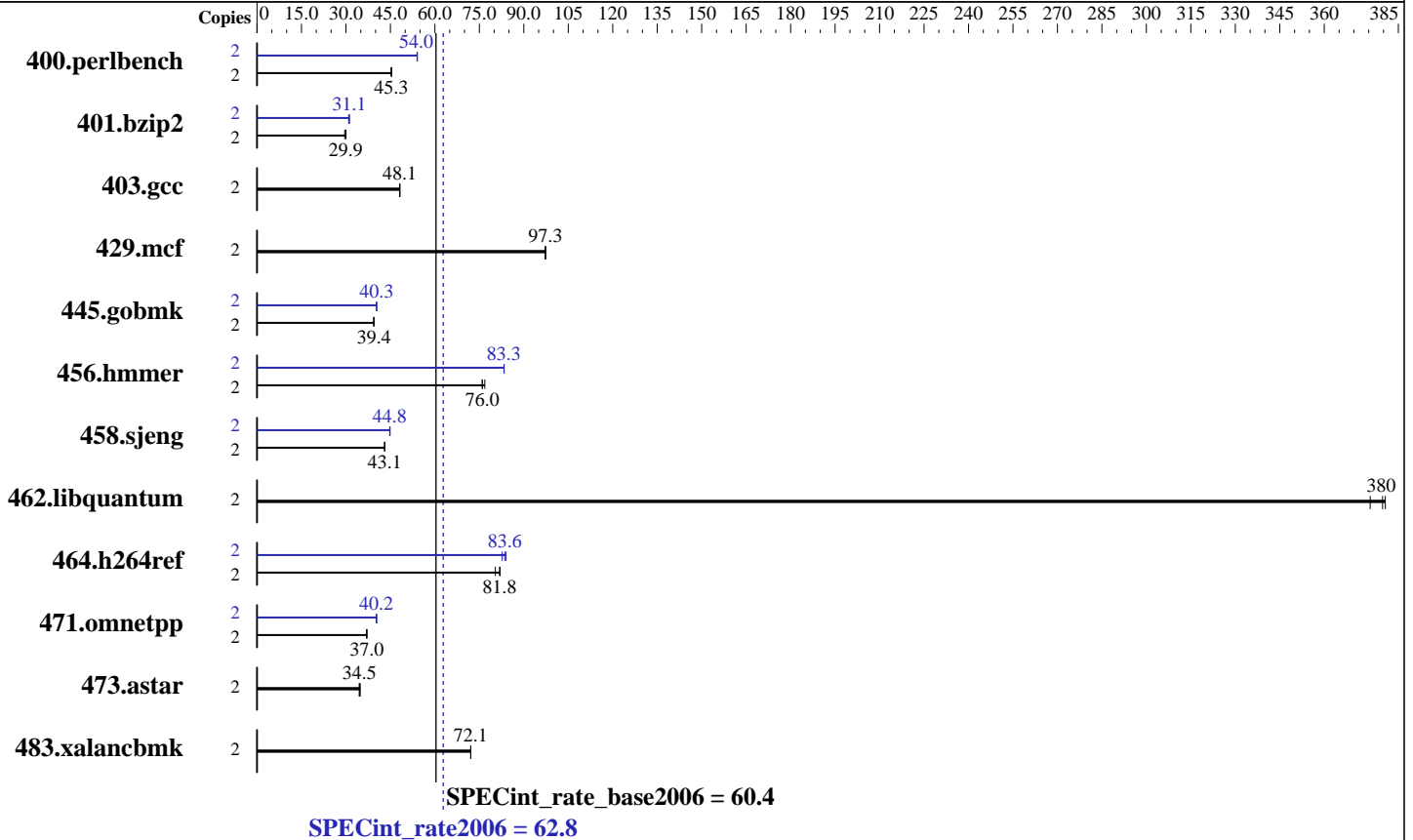
Test date: Mar-2012

Test sponsor: NEC Corporation

Hardware Availability: Jan-2012

Tested by: NEC Corporation

Software Availability: Dec-2011



Hardware

CPU Name: Intel Pentium G630
 CPU Characteristics:
 CPU MHz: 2700
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip
 CPU(s) orderable: 1 chip
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 256 KB I+D on chip per core
 L3 Cache: 3 MB I+D on chip per chip
 Other Cache: None
 Memory: 8 GB (2 x 4 GB 2Rx8 PC3-10600E-9, ECC, running at 1066 MHz and CL7)
 Disk Subsystem: 1 x 160 GB SATA, 7200 RPM
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.1 (Santiago)
 2.6.32-131.0.15.el6.x86_64
 Compiler: C/C++: Version 12.1.2.273 of Intel C++ Studio XE for Linux;
 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 V8.1



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

SPECint_rate2006 = 62.8

Express5800/R110d-1E (Intel Pentium G630)

SPECint_rate_base2006 = 60.4

CPU2006 license: 9006

Test date: Mar-2012

Test sponsor: NEC Corporation

Hardware Availability: Jan-2012

Tested by: NEC Corporation

Software Availability: Dec-2011

Results Table

Benchmark	Base						Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	2	<u>431</u>	<u>45.3</u>	430	45.4	432	45.3	2	361	54.1	362	54.0	<u>362</u>	<u>54.0</u>
401.bzip2	2	643	30.0	652	29.6	<u>645</u>	<u>29.9</u>	2	624	30.9	<u>621</u>	<u>31.1</u>	619	31.2
403.gcc	2	334	48.2	335	48.1	<u>334</u>	<u>48.1</u>	2	334	48.2	335	48.1	<u>334</u>	<u>48.1</u>
429.mcf	2	<u>187</u>	<u>97.3</u>	187	97.4	188	97.2	2	<u>187</u>	<u>97.3</u>	187	97.4	188	97.2
445.gobmk	2	<u>532</u>	<u>39.4</u>	533	39.4	532	39.4	2	520	40.4	520	40.3	<u>520</u>	<u>40.3</u>
456.hammer	2	246	76.0	243	76.8	<u>246</u>	<u>76.0</u>	2	<u>224</u>	<u>83.3</u>	224	83.3	224	83.4
458.sjeng	2	562	43.0	<u>562</u>	<u>43.1</u>	562	43.1	2	540	44.8	539	44.9	<u>540</u>	<u>44.8</u>
462.libquantum	2	109	381	<u>109</u>	<u>380</u>	110	375	2	109	381	<u>109</u>	<u>380</u>	110	375
464.h264ref	2	540	82.0	<u>541</u>	<u>81.8</u>	551	80.4	2	527	84.0	535	82.7	<u>530</u>	<u>83.6</u>
471.omnetpp	2	<u>338</u>	<u>37.0</u>	339	36.9	337	37.1	2	311	40.2	309	40.4	<u>311</u>	<u>40.2</u>
473.astar	2	403	34.8	<u>407</u>	<u>34.5</u>	407	34.5	2	403	34.8	<u>407</u>	<u>34.5</u>	407	34.5
483.xalancbmk	2	<u>191</u>	<u>72.1</u>	191	72.1	191	72.1	2	<u>191</u>	<u>72.1</u>	191	72.1	191	72.1

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

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes

Default BIOS settings were used.

General Notes

Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2006/libs/32:/home/cpu2006/libs/64"

Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
Filesystem page cache cleared with:
echo 1> /proc/sys/vm/drop_caches
runspec command invoked through numactl i.e.:
numactl --interleave=all runspec <etc>

Added glibc-static-2.12-1.25.el6.x86_64.rpm
to enable static linking



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

SPECint_rate2006 = 62.8

Express5800/R110d-1E (Intel Pentium G630)

SPECint_rate_base2006 = 60.4

CPU2006 license: 9006

Test date: Mar-2012

Test sponsor: NEC Corporation

Hardware Availability: Jan-2012

Tested by: NEC Corporation

Software Availability: Dec-2011

Base Compiler Invocation

C benchmarks:

icc -m32

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 -opt-mem-layout-trans=3

C++ benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3
-Wl,-z,muldefs -L/opt/SmartHeap_8.1/lib -lsmartheap

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):

icc -m32

400.perlbench: icc -m64

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 = 62.8

Express5800/R110d-1E (Intel Pentium G630)

SPECint_rate_base2006 = 60.4

CPU2006 license: 9006

Test date: Mar-2012

Test sponsor: NEC Corporation

Hardware Availability: Jan-2012

Tested by: NEC Corporation

Software Availability: Dec-2011

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
 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) -prof-use(pass 2)
 -auto-ilp32

401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
 -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
 -opt-prefetch -auto-ilp32 -ansi-alias

403.gcc: basepeak = yes

429.mcf: basepeak = yes

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
 -ansi-alias -opt-mem-layout-trans=3

456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32

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

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_8.1/lib -lsmartheap

473.astar: basepeak = yes

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

SPECint_rate2006 = 62.8

Express5800/R110d-1E (Intel Pentium G630)

SPECint_rate_base2006 = 60.4

CPU2006 license: 9006

Test date: Mar-2012

Test sponsor: NEC Corporation

Hardware Availability: Jan-2012

Tested by: NEC Corporation

Software Availability: Dec-2011

Peak Optimization Flags (Continued)

483.xalanbmk: 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-ic12.1-official-linux64.20111122.html>

<http://www.spec.org/cpu2006/flags/NEC-platform-Settings-V1.2-R110d-RevA.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.xml>

<http://www.spec.org/cpu2006/flags/NEC-platform-Settings-V1.2-R110d-RevA.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 v1.2.
Report generated on Thu Jul 24 07:24:46 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 10 April 2012.