



SPEC® CINT2006 Result

Copyright 2006-2017 Standard Performance Evaluation Corporation

NEC Corporation

SPECint®_rate2006 = 127

Express5800/T110i (Intel Pentium G4560)

SPECint_rate_base2006 = 122

CPU2006 license: 9006

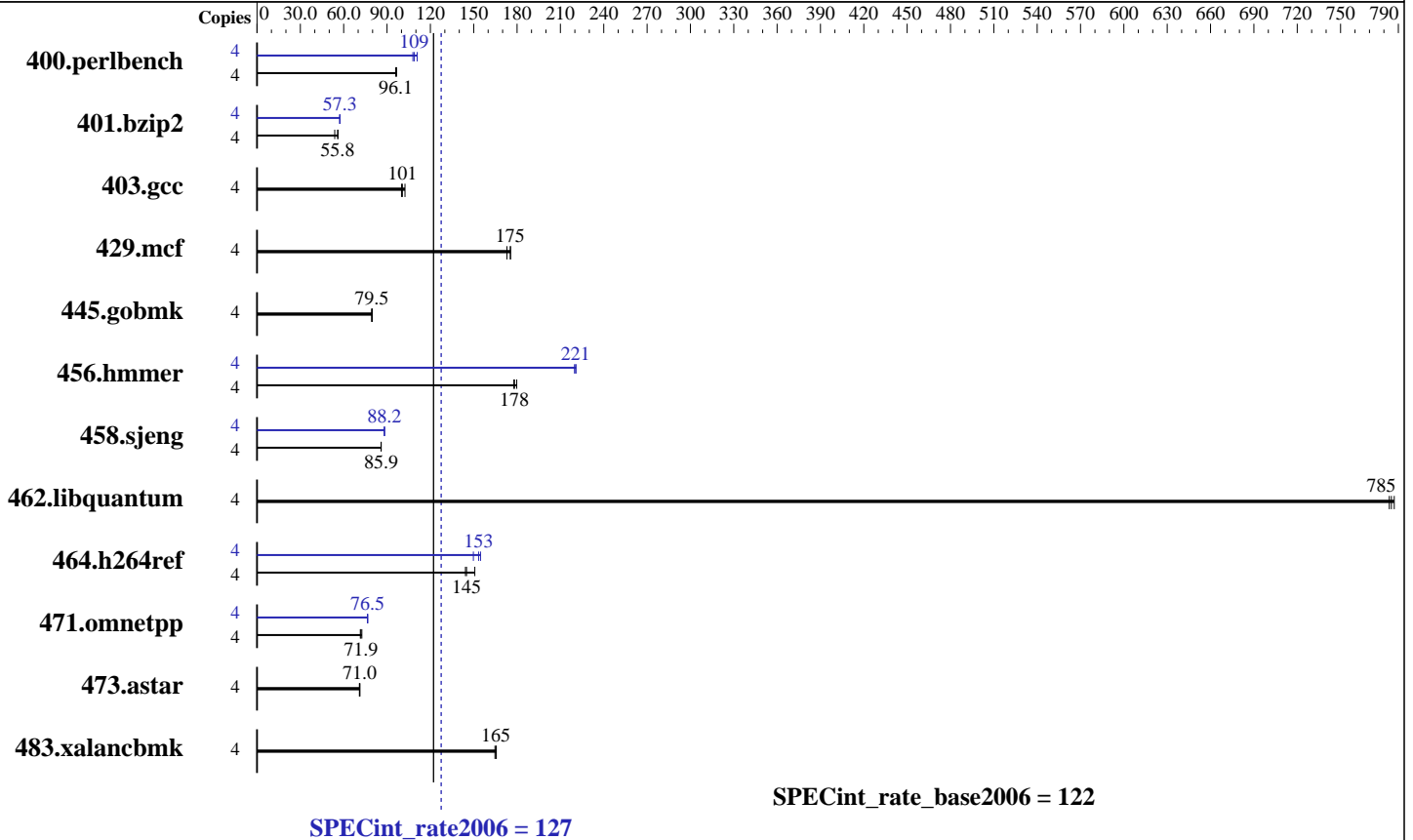
Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Mar-2017

Hardware Availability: Apr-2017

Software Availability: Jan-2017



Hardware

CPU Name: Intel Pentium G4560
 CPU Characteristics:
 CPU MHz: 3500
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip, 2 threads/core
 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: 32 GB (2 x 16 GB 2Rx8 PC4-2400T-E)
 Disk Subsystem: 1 x 1 TB SATA, 7200 RPM
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 7.3 (Maipo)
 Kernel 3.10.0-514.6.1.el7.x86_64
 Compiler: C/C++: Version 17.0.0.098 of Intel C/C++ Compiler 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 V10.2



SPEC CINT2006 Result

Copyright 2006-2017 Standard Performance Evaluation Corporation

NEC Corporation

SPECint_rate2006 = 127

Express5800/T110i (Intel Pentium G4560)

SPECint_rate_base2006 = 122

CPU2006 license: 9006

Test date: Mar-2017

Test sponsor: NEC Corporation

Hardware Availability: Apr-2017

Tested by: NEC Corporation

Software Availability: Jan-2017

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	4	404	96.7	406	96.1	407	96.1	4	353	111	362	108	359	109
401.bzip2	4	692	55.8	688	56.1	718	53.8	4	675	57.2	673	57.3	672	57.5
403.gcc	4	320	101	322	100	314	102	4	320	101	322	100	314	102
429.mcf	4	208	175	208	175	211	173	4	208	175	208	175	211	173
445.gobmk	4	526	79.8	528	79.5	529	79.4	4	526	79.8	528	79.5	529	79.4
456.hammer	4	209	178	208	180	210	178	4	169	221	169	221	170	220
458.sjeng	4	564	85.9	564	85.9	563	86.0	4	548	88.3	549	88.1	549	88.2
462.libquantum	4	105	787	106	784	106	785	4	105	787	106	784	106	785
464.h264ref	4	614	144	610	145	587	151	4	577	153	572	155	591	150
471.omnetpp	4	345	72.6	350	71.5	348	71.9	4	327	76.5	326	76.6	327	76.5
473.astar	4	394	71.2	396	70.9	395	71.0	4	394	71.2	396	70.9	395	71.0
483.xalancbmk	4	167	165	168	165	167	166	4	167	165	168	165	167	166

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

Submit Notes

The taskset mechanism was used to bind copies to processors. The config file option 'submit' was used to generate taskset 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

BIOS Settings:
Power Management Policy: Custom
Energy Performance: Performance
DCU Streamer Prefetcher: Disabled

General Notes

Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/home/cpu2006/libs/32:/home/cpu2006/libs/64:/home/cpu2006/sh10.2"

Binaries compiled on a system with 1x Intel Core i7-4790 CPU + 32GB RAM
memory using Redhat Enterprise Linux 7.2
Transparent Huge Pages enabled by default



SPEC CINT2006 Result

Copyright 2006-2017 Standard Performance Evaluation Corporation

NEC Corporation

SPECint_rate2006 = 127

Express5800/T110i (Intel Pentium G4560)

SPECint_rate_base2006 = 122

CPU2006 license: 9006

Test date: Mar-2017

Test sponsor: NEC Corporation

Hardware Availability: Apr-2017

Tested by: NEC Corporation

Software Availability: Jan-2017

Base Compiler Invocation

C benchmarks:

icc -m32 -L/opt/intel/compilers_and_libraries_2017/linux/lib/ia32

C++ benchmarks:

icpc -m32 -L/opt/intel/compilers_and_libraries_2017/linux/lib/ia32

Base Portability Flags

400.perlbench: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX_IA32
 401.bzip2: -D_FILE_OFFSET_BITS=64
 403.gcc: -D_FILE_OFFSET_BITS=64
 429.mcf: -D_FILE_OFFSET_BITS=64
 445.gobmk: -D_FILE_OFFSET_BITS=64
 456.hmmer: -D_FILE_OFFSET_BITS=64
 458.sjeng: -D_FILE_OFFSET_BITS=64
 462.libquantum: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX
 464.h264ref: -D_FILE_OFFSET_BITS=64
 471.omnetpp: -D_FILE_OFFSET_BITS=64
 473.astar: -D_FILE_OFFSET_BITS=64
 483.xalancbmk: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -qopt-prefetch
-qopt-mem-layout-trans=3

C++ benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -qopt-prefetch
-qopt-mem-layout-trans=3 -Wl,-z,muldefs -L/sh10.2 -lsmartheap

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):

icc -m32 -L/opt/intel/compilers_and_libraries_2017/linux/lib/ia32

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2017 Standard Performance Evaluation Corporation

NEC Corporation

SPECint_rate2006 = 127

Express5800/T110i (Intel Pentium G4560)

SPECint_rate_base2006 = 122

CPU2006 license: 9006

Test date: Mar-2017

Test sponsor: NEC Corporation

Hardware Availability: Apr-2017

Tested by: NEC Corporation

Software Availability: Jan-2017

Peak Compiler Invocation (Continued)

400.perlbench: icc -m64

401.bzip2: icc -m64

456.hmmer: icc -m64

458.sjeng: icc -m64

C++ benchmarks:

icpc -m32 -L/opt/intel/compilers_and_libraries_2017/linux/lib/ia32

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64

401.bzip2: -DSPEC_CPU_LP64

403.gcc: -D_FILE_OFFSET_BITS=64

429.mcf: -D_FILE_OFFSET_BITS=64

445.gobmk: -D_FILE_OFFSET_BITS=64

456.hmmer: -DSPEC_CPU_LP64

458.sjeng: -DSPEC_CPU_LP64

462.libquantum: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX

464.h264ref: -D_FILE_OFFSET_BITS=64

471.omnetpp: -D_FILE_OFFSET_BITS=64

473.astar: -D_FILE_OFFSET_BITS=64

483.xalancbmk: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.2(pass 2)
-par-num-threads=1(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -auto-ilp32 -qopt-mem-layout-trans=3

401.bzip2: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.2(pass 2)
-par-num-threads=1(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -qopt-prefetch -auto-ilp32
-qopt-mem-layout-trans=3

403.gcc: basepeak = yes

429.mcf: basepeak = yes

445.gobmk: basepeak = yes

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2017 Standard Performance Evaluation Corporation

NEC Corporation

SPECint_rate2006 = 127

Express5800/T110i (Intel Pentium G4560)

SPECint_rate_base2006 = 122

CPU2006 license: 9006

Test date: Mar-2017

Test sponsor: NEC Corporation

Hardware Availability: Apr-2017

Tested by: NEC Corporation

Software Availability: Jan-2017

Peak Optimization Flags (Continued)

456.hmmr: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32
-qopt-mem-layout-trans=3

458.sjeng: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.2(pass 2)
-par-num-threads=1(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -unroll4 -auto-ilp32
-qopt-mem-layout-trans=3

462.libquantum: basepeak = yes

464.h264ref: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.2(pass 2)
-par-num-threads=1(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -unroll2 -qopt-mem-layout-trans=3

C++ benchmarks:

471.omnetpp: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.2(pass 2)
-par-num-threads=1(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2)
-qopt-ra-region-strategy=block
-qopt-mem-layout-trans=3 -Wl,-z,muldefs
-L/sh10.2 -lsmartheap

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-ic17.0-official-linux64.html>

<http://www.spec.org/cpu2006/flags/NEC-Platform-Settings-V1.2-110i-RevA.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic17.0-official-linux64.xml>

<http://www.spec.org/cpu2006/flags/NEC-Platform-Settings-V1.2-110i-RevA.xml>



SPEC CINT2006 Result

Copyright 2006-2017 Standard Performance Evaluation Corporation

NEC Corporation

SPECint_rate2006 = 127

Express5800/T110i (Intel Pentium G4560)

SPECint_rate_base2006 = 122

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Mar-2017

Hardware Availability: Apr-2017

Software Availability: Jan-2017

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 Tue May 30 15:31:52 2017 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 30 May 2017.