



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/T110b
(Intel Xeon X3430)

SPECint®2006 = 29.6

SPECint_base2006 = 27.3

CPU2006 license: 9006

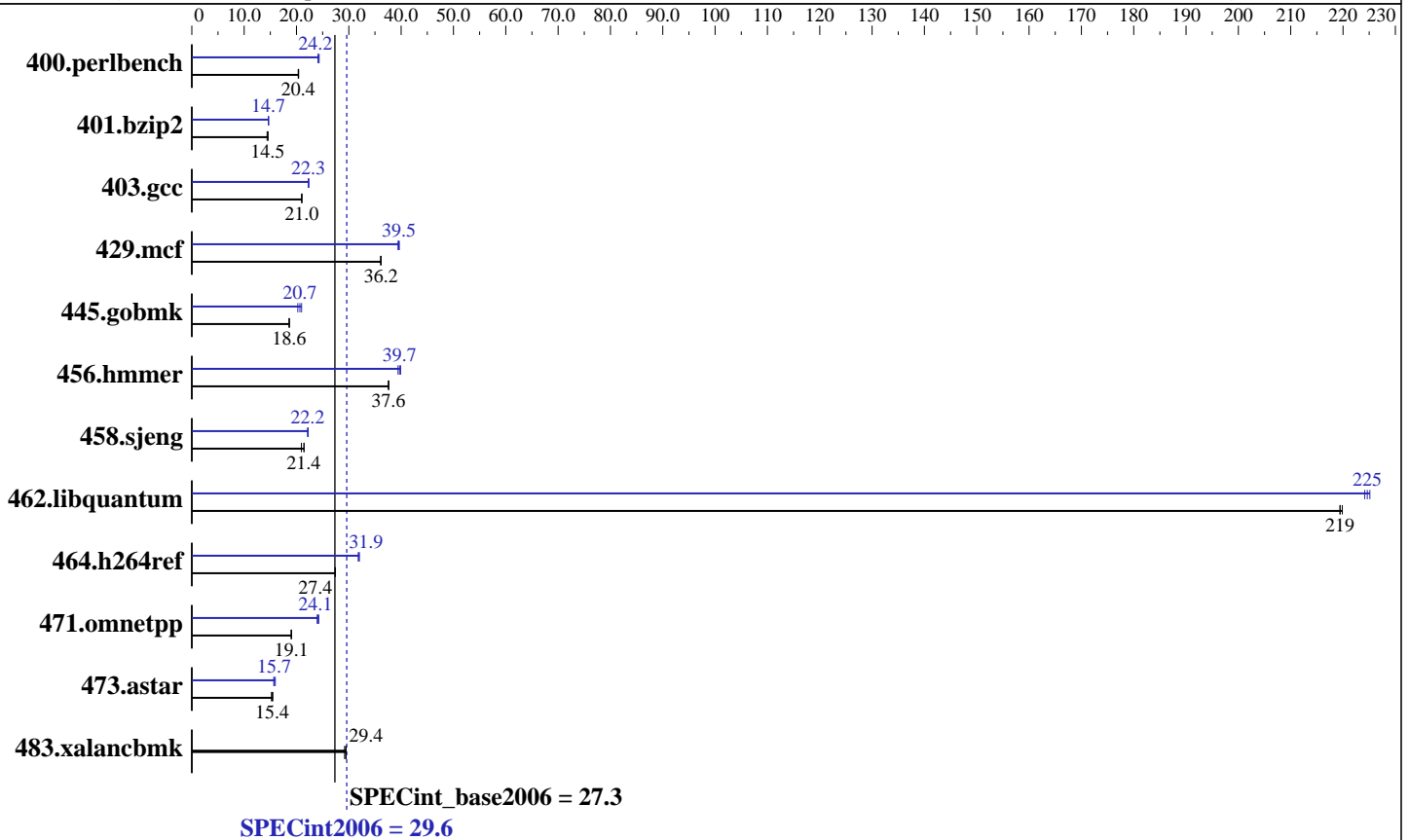
Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Feb-2010

Hardware Availability: Jan-2010

Software Availability: Nov-2009



Hardware

CPU Name: Intel Xeon X3430
 CPU Characteristics: Intel Turbo Boost Technology up to 2.80 GHz
 CPU MHz: 2400
 FPU: Integrated
 CPU(s) enabled: 4 cores, 1 chip, 4 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: 8 MB I+D on chip per chip
 Other Cache: None
 Memory: 16 GB (4 x 4 GB PC3-10600R, 2 rank, CL9, ECC)
 Disk Subsystem: 1x160 GB SATA, 7200 RPM
 Other Hardware: None

Software

Operating System: SUSE Linux Enterprise Server 11 (x86_64), Kernel 2.6.27.19-5-default
 Compiler: Intel C++ Professional Compiler for IA32 and Intel 64, Version 11.1 Build 20091012 Package ID: l_cproc_p_11.1.059
 Auto Parallel: Yes
 File System: ext3
 System State: Run level 3 (multi-user)
 Base Pointers: 64-bit
 Peak Pointers: 32/64-bit
 Other Software: Microquill SmartHeap V8.1



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/T110b
(Intel Xeon X3430)

SPECint2006 = **29.6**

SPECint_base2006 = **27.3**

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Feb-2010

Hardware Availability: Jan-2010

Software Availability: Nov-2009

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	478	20.4	480	20.4	481	20.3	405	24.1	401	24.3	404	24.2
401.bzip2	664	14.5	663	14.5	671	14.4	658	14.7	659	14.7	660	14.6
403.gcc	384	21.0	383	21.0	383	21.0	362	22.2	361	22.3	360	22.4
429.mcf	252	36.2	253	36.1	252	36.2	231	39.5	231	39.4	230	39.7
445.gobmk	563	18.6	564	18.6	564	18.6	508	20.7	500	21.0	518	20.3
456.hammer	248	37.6	248	37.6	248	37.6	235	39.7	237	39.4	234	39.9
458.sjeng	565	21.4	564	21.5	578	20.9	547	22.1	546	22.2	544	22.2
462.libquantum	94.4	219	94.4	219	94.2	220	92.0	225	92.2	225	92.4	224
464.h264ref	807	27.4	806	27.5	808	27.4	691	32.0	695	31.8	695	31.9
471.omnetpp	330	19.0	328	19.1	328	19.1	259	24.1	261	23.9	258	24.3
473.astar	461	15.2	453	15.5	457	15.4	440	16.0	448	15.7	446	15.7
483.xalancbmk	236	29.2	234	29.5	235	29.4	236	29.2	234	29.5	235	29.4

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

Platform Notes

Default BIOS settings were used.

General Notes

OMP_NUM_THREADS set to number of cores
KMP_AFFINITY set to granularity=fine,scatter

Base Compiler Invocation

C benchmarks:
icc -m64

C++ benchmarks:
icpc -m64

Base Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/T110b
(Intel Xeon X3430)

SPECint2006 = 29.6

SPECint_base2006 = 27.3

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Feb-2010

Hardware Availability: Jan-2010

Software Availability: Nov-2009

Base Portability Flags (Continued)

```

401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64
429.mcf: -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
471.omnetpp: -DSPEC_CPU_LP64
473.astar: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX

```

Base Optimization Flags

C benchmarks:

```

-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel
-par-runtime-control -opt-prefetch

```

C++ benchmarks:

```

-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/opt/SmartHeap_8.1/lib64 -lsmartheap64

```

Base Other Flags

C benchmarks:

```

403.gcc: -Dalloca=_alloca

```

Peak Compiler Invocation

C benchmarks (except as noted below):

```

icc -m64

```

```

400.perlbench: icc -m32

```

```

429.mcf: icc -m32

```

```

445.gobmk: icc -m32

```

```

464.h264ref: icc -m32

```

C++ benchmarks (except as noted below):

```

icpc -m64

```

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/T110b
(Intel Xeon X3430)

SPECint2006 = 29.6

SPECint_base2006 = 27.3

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Feb-2010

Hardware Availability: Jan-2010

Software Availability: Nov-2009

Peak Compiler Invocation (Continued)

471.omnetpp: icpc -m32

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_X64
 401.bzip2: -DSPEC_CPU_LP64
 403.gcc: -DSPEC_CPU_LP64
 456.hmmer: -DSPEC_CPU_LP64
 458.sjeng: -DSPEC_CPU_LP64
 462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
 473.astar: -DSPEC_CPU_LP64
 483.xalancbmk: -DSPEC_CPU_LP64 -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 -opt-prefetch

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

403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div -static -inline-alloc
 -opt-malloc-options=3 -auto-ilp32

429.mcf: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

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 -static -unroll2
 -ansi-alias -auto-ilp32

458.sjeng: -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) -unroll4

462.libquantum: -xSSE4.2 -ipo -O3 -no-prec-div -static -parallel
 -par-runtime-control -opt-prefetch
 -par-schedule-static=32768 -ansi-alias

464.h264ref: -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) -unroll2 -ansi-alias

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

NEC Corporation

Express5800/T110b
(Intel Xeon X3430)

SPECint2006 = 29.6

SPECint_base2006 = 27.3

CPU2006 license: 9006

Test sponsor: NEC Corporation

Tested by: NEC Corporation

Test date: Feb-2010

Hardware Availability: Jan-2010

Software Availability: Nov-2009

Peak Optimization Flags (Continued)

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: -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=routine -Wl,-z,muldefs
           -L/opt/SmartHeap_8.1/lib64 -lsmartheap64
```

```
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/Intel-ic11.1-int-linux64-revE.20100302.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-int-linux64-revE.20100302.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 Wed Jul 23 05:10:42 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 30 March 2010.