SPEC® CINT2006 Result

NEC Corporation

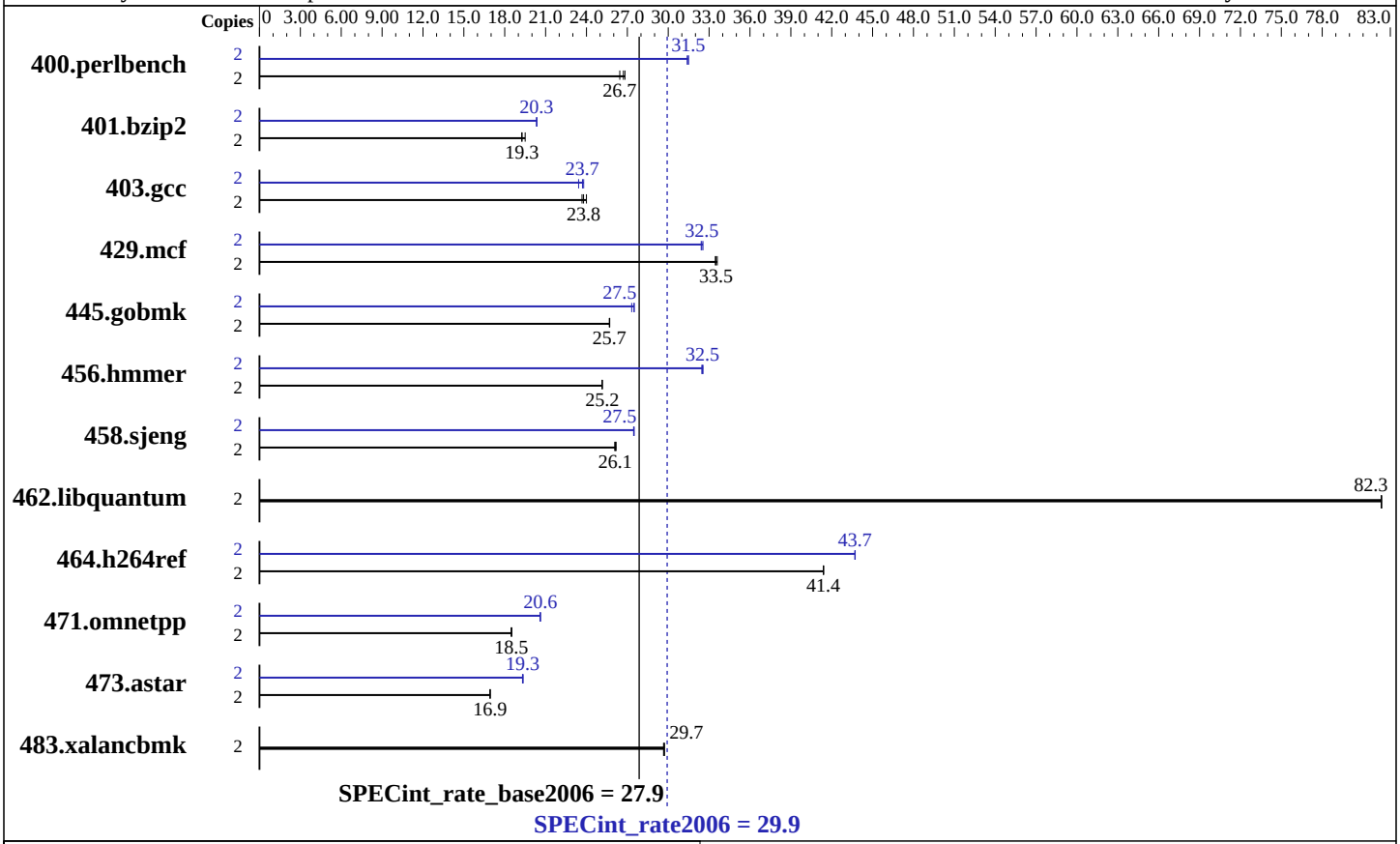
Express5800/i120Ra-e1
(Intel Xeon L5215)

SPECint®_rate2006 = 29.9

SPECint_rate_base2006 = 27.9

CPU2006 license: 9006
Test sponsor: NEC Corporation
Tested by: NEC Corporation

Test date: Feb-2009
Hardware Availability: Jan-2009
Software Availability: Nov-2008



Hardware

CPU Name:	Intel Xeon L5215
CPU Characteristics:	1066 MHz system bus
CPU MHz:	1867
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip
CPU(s) orderable:	1,2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	6 MB I+D on chip per chip
L3 Cache:	None
Other Cache:	None
Memory:	16 GB (4x4 GB PC2-5300P, 2 rank, CL5-5-5, ECC)
Disk Subsystem:	1x80 GB SATAII, 7200 RPM
Other Hardware:	None

Software

Operating System:	SUSE Linux Enterprise Server 10 (x86_64) SP2, Kernel 2.6.16.60-0.21-smp
Compiler:	Intel C++ Compiler 11.0 for Linux Build 20081105 Package ID: l_cproc_p_11.0.074
Auto Parallel:	No
File System:	ReiserFS
System State:	Run level 3 (multi-user)
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	MicroQuill SmartHeap Library 8.1 Binutils 2.18.50.0.7.20080502

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Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	2	728	26.8	739	26.4	**732**	**26.7**	2	**621**	**31.5**	621	31.5	623	31.4
401.bzip2	2	1003	19.2	990	19.5	**1001**	**19.3**	2	948	20.3	949	20.3	**949**	**20.3**
403.gcc	2	**677**	**23.8**	680	23.7	671	24.0	2	**679**	**23.7**	677	23.8	687	23.4
429.mcf	2	**544**	**33.5**	545	33.5	543	33.6	2	**562**	**32.5**	563	32.4	560	32.6
445.gobmk	2	**817**	**25.7**	817	25.7	816	25.7	2	768	27.3	763	27.5	**763**	**27.5**
456.hmmer	2	742	25.2	**742**	**25.2**	742	25.2	2	575	32.5	573	32.6	**574**	**32.5**
458.sjeng	2	925	26.2	928	26.1	**926**	**26.1**	2	**881**	**27.5**	881	27.5	880	27.5
462.libquantum	2	**503**	**82.3**	503	82.4	503	82.3	2	**503**	**82.3**	503	82.4	503	82.3
464.h264ref	2	**1069**	**41.4**	1069	41.4	1069	41.4	2	**1013**	**43.7**	1013	43.7	1012	43.7
471.omnetpp	2	**676**	**18.5**	675	18.5	677	18.5	2	**606**	**20.6**	607	20.6	606	20.6
473.astar	2	830	16.9	**829**	**16.9**	829	16.9	2	726	19.4	**727**	**19.3**	727	19.3
483.xalancbmk	2	465	29.7	**465**	**29.7**	464	29.7	2	465	29.7	**465**	**29.7**	464	29.7

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.
 taskset was used to bind processes to cores
```

Operating System Notes

```
'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run
```

Platform Notes

```
Bios settings:
Hardware Prefetcher:              Enabled
Adjacent Cache Line Prefetch:     Enabled
```

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Base Portability Flags

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

Base Optimization Flags

C benchmarks:
`-xSSE4.1 -ipo -O3 -no-prec-div -static -inline-calloc -opt-malloc-options=3 -opt-prefetch`

C++ benchmarks:
`-xSSE4.1 -ipo -O3 -no-prec-div -opt-prefetch -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`

401.bzip2: `/opt/intel/Compiler/11.0/074/bin/intel64/icc -L/opt/intel/Compiler/11.0/074/ipp/em64t/lib -I/opt/intel/Compiler/11.0/074/ipp/em64t/include`

456.hmmer: `/opt/intel/Compiler/11.0/074/bin/intel64/icc -L/opt/intel/Compiler/11.0/074/ipp/em64t/lib -I/opt/intel/Compiler/11.0/074/ipp/em64t/include`

C++ benchmarks:
`icpc`

Peak Portability Flags

400.perlbench: `-DSPEC_CPU_LINUX_IA32`
401.bzip2: `-DSPEC_CPU_LP64`
456.hmmer: `-DSPEC_CPU_LP64`

Continued on next page

Peak Portability Flags (Continued)

462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -ansi-alias -opt-prefetch

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

403.gcc: -xSSE4.1 -ipo -O3 -no-prec-div -static -inline-calloc
-opt-malloc-options=3

429.mcf: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -opt-prefetch

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

456.hmmer: -xSSE4.1 -ipo -O3 -no-prec-div -static -unroll2
-ansi-alias

458.sjeng: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -static -unroll4

462.libquantum: basepeak = yes

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

C++ benchmarks:

471.omnetpp: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -ansi-alias -opt-ra-region-strategy=block
-Wl,-z,muldefs -L/opt/SmartHeap_8.1/lib -lsmartheap

473.astar: -prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3
-no-prec-div -ansi-alias -opt-ra-region-strategy=routine
-Wl,-z,muldefs -L/opt/SmartHeap_8.1/lib -lsmartheap

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-ic11.0-int-linux64-revE.html`
`http://www.spec.org/cpu2006/flags/NEC-Intel-Linux-Settings-flags-revB.html`

You can also download the XML flags sources by saving the following links:
`http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revE.xml`
`http://www.spec.org/cpu2006/flags/NEC-Intel-Linux-Settings-flags-revB.xml`

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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