SPEC® CINT2006 Result

NEC Corporation

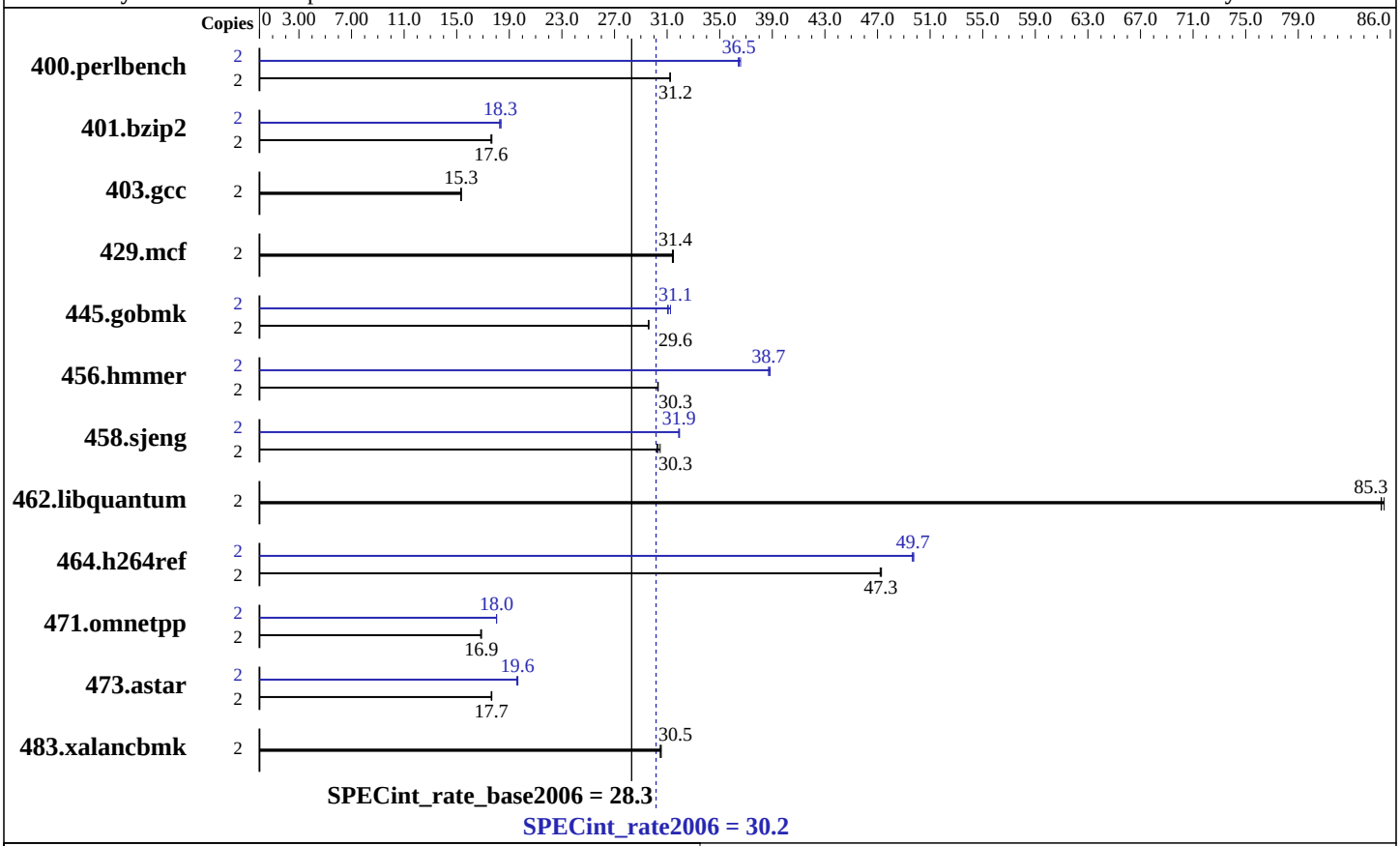
Express5800/iR110a-1H
(Intel Core 2 Duo P8400)

SPECint®_rate2006 = 30.2

SPECint_rate_base2006 = 28.3

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

Test date: Nov-2009
Hardware Availability: Jul-2009
Software Availability: Feb-2009



Hardware

CPU Name:	Intel Core 2 Duo P8400
CPU Characteristics:	1066 MHz system bus
CPU MHz:	2266
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:	3 MB I+D on chip per chip
L3 Cache:	None
Other Cache:	None
Memory:	8 GB (4x2 GB PC2-5300P, 1 rank, CL5-5-5, ECC)
Disk Subsystem:	1x73.2 GB SAS, 15000 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 Professional 11.0 for Linux Build 20090131 Package ID: l_cproc_p_11.0.081
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	**626**	**31.2**	626	31.2	625	31.2	2	537	36.4	534	36.6	**536**	**36.5**
401.bzip2	2	1092	17.7	**1095**	**17.6**	1096	17.6	2	**1053**	**18.3**	1051	18.4	1057	18.3
403.gcc	2	**1050**	**15.3**	1051	15.3	1049	15.4	2	**1050**	**15.3**	1051	15.3	1049	15.4
429.mcf	2	**580**	**31.4**	581	31.4	579	31.5	2	**580**	**31.4**	581	31.4	579	31.5
445.gobmk	2	**709**	**29.6**	709	29.6	709	29.6	2	**675**	**31.1**	671	31.3	676	31.0
456.hmmer	2	615	30.3	**616**	**30.3**	616	30.3	2	**482**	**38.7**	482	38.7	480	38.8
458.sjeng	2	794	30.5	**798**	**30.3**	800	30.2	2	759	31.9	758	31.9	**759**	**31.9**
462.libquantum	2	**486**	**85.3**	484	85.5	486	85.3	2	**486**	**85.3**	484	85.5	486	85.3
464.h264ref	2	938	47.2	**937**	**47.3**	936	47.3	2	890	49.8	891	49.7	**891**	**49.7**
471.omnetpp	2	**741**	**16.9**	743	16.8	741	16.9	2	**693**	**18.0**	693	18.0	694	18.0
473.astar	2	797	17.6	795	17.7	**795**	**17.7**	2	**715**	**19.6**	714	19.7	717	19.6
483.xalancbmk	2	453	30.5	452	30.6	**453**	**30.5**	2	453	30.5	452	30.6	**453**	**30.5**

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/11.0/081/bin/intel64/icc -L/opt/intel/Compiler/11.0/081/ipp/em64t/lib -I/opt/intel/Compiler/11.0/081/ipp/em64t/include`

456.hmmer: `/opt/intel/Compiler/11.0/081/bin/intel64/icc -L/opt/intel/Compiler/11.0/081/ipp/em64t/lib -I/opt/intel/Compiler/11.0/081/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: basepeak = yes

429.mcf: basepeak = yes

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-revG.html`
`http://www.spec.org/cpu2006/flags/NEC-Intel-Linux-Settings-flags-revE.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-revG.xml`
`http://www.spec.org/cpu2006/flags/NEC-Intel-Linux-Settings-flags-revE.xml`

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

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