SPEC® CINT2006 Result

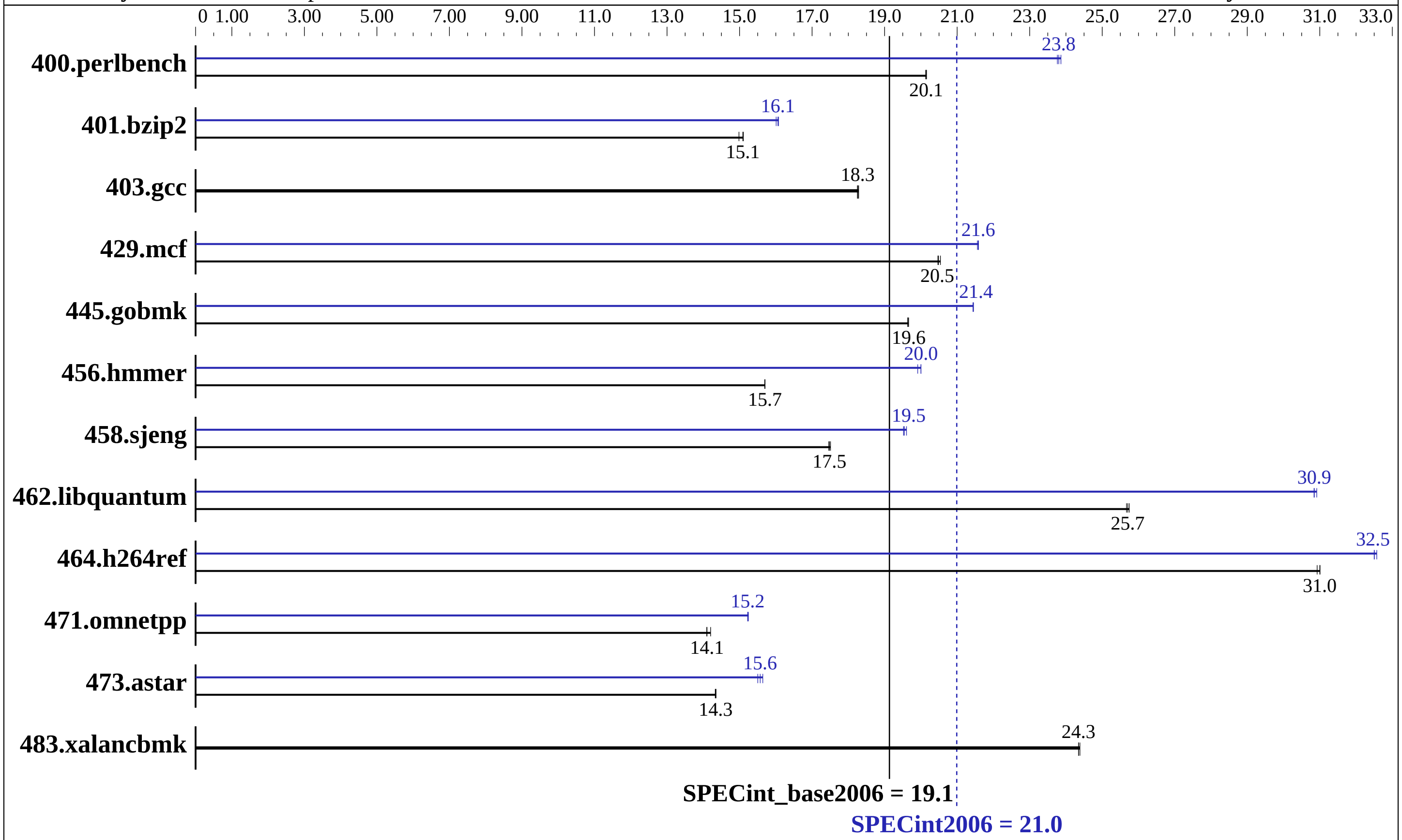
NEC Corporation

Express5800/120Ri-2
(Intel Xeon processor 5160)

SPECint®2006 = 21.0

SPECint_base2006 = 19.1

CPU2006 license:	9006	**Test date:**	Jun-2007
Test sponsor:	NEC Corporation	**Hardware Availability:**	May-2007
Tested by:	NEC Corporation	**Software Availability:**	Jun-2007



Hardware

CPU Name:	Intel Xeon 5160
CPU Characteristics:	3.00 GHz, 4MB L2, 1333MHz bus
CPU MHz:	3000
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1,2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	4 MB I+D on chip per chip
L3 Cache:	None
Other Cache:	None
Memory:	8 GB (4x2 GB DDR2 5300F, 2 rank, CL5-5-5, ECC)
Disk Subsystem:	1x73.2 GB SAS, 15000RPM
Other Hardware:	None

Software

Operating System:	64-Bit SUSE LINUX Enterprise Server 10, Kernel 2.6.16.21-0.8-smp for x86_64
Compiler:	Intel C++ Compiler for IA32/EM64T application, Version 10.0 - Build 20070426 Package ID: l_cc_p_10.0.023
Auto Parallel:	No
File System:	ext2
System State:	Multiuser, Runlevel 3
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	MicroQuill SmartHeap library 8.1 binutils-2.17.tar.gz, Version 2.17

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	485	20.2	485	20.1	**485**	**20.1**	409	23.9	**410**	**23.8**	411	23.8
401.bzip2	639	15.1	644	15.0	**639**	**15.1**	**601**	**16.1**	603	16.0	600	16.1
403.gcc	440	18.3	441	18.2	**441**	**18.3**	440	18.3	441	18.2	**441**	**18.3**
429.mcf	446	20.5	**445**	**20.5**	444	20.5	423	21.6	**423**	**21.6**	422	21.6
445.gobmk	534	19.7	534	19.6	**534**	**19.6**	489	21.5	**489**	**21.4**	489	21.4
456.hmmer	**594**	**15.7**	594	15.7	594	15.7	466	20.0	469	19.9	**466**	**20.0**
458.sjeng	691	17.5	**692**	**17.5**	693	17.5	617	19.6	**619**	**19.5**	620	19.5
462.libquantum	**806**	**25.7**	807	25.7	805	25.7	670	30.9	**672**	**30.9**	672	30.8
464.h264ref	716	30.9	**714**	**31.0**	714	31.0	681	32.5	**681**	**32.5**	679	32.6
471.omnetpp	440	14.2	**443**	**14.1**	443	14.1	**410**	**15.2**	410	15.2	411	15.2
473.astar	490	14.3	**489**	**14.3**	489	14.4	**451**	**15.6**	449	15.6	453	15.5
483.xalancbmk	**283**	**24.3**	283	24.4	283	24.3	**283**	**24.3**	283	24.4	283	24.3

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

General Notes

All benchmarks compiled in 32-bit mode except 401.bzip2 and 456.hmmer,
for peak, are compiled in 64-bit mode

The Express5800/120Rg-1(Intel Xeon processor 5160) and
the Express5800/120Ri-2(Intel Xeon processor 5160) models are electronically equivalent.
The results have been measured on a Express5800/120Ri-2(Intel Xeon processor 5160) model.

Base Compiler Invocation

C benchmarks:
`icc`

C++ benchmarks:
`icpc`

Base Portability Flags

400.perlbench: `-DSPEC_CPU_LINUX_IA32`

Continued on next page

Base Portability Flags (Continued)

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

Base Optimization Flags

C benchmarks:
-fast

C++ benchmarks:
-xT -ipo -O3 -no-prec-div -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/cce/10.0.023/bin/icc

456.hmmer: /opt/intel/cce/10.0.023/bin/icc

C++ benchmarks:
icpc

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
401.bzip2: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

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Peak Optimization Flags

C benchmarks:

400.perlbench: -prof-gen(pass 1) -prof-use(pass 2) -fast -ansi-alias -prefetch

401.bzip2: -L/opt/intel/cce/10.0.023/lib -I/opt/intel/cce/10.0.023/include -prof-gen(pass 1) -prof-use(pass 2) -fast

403.gcc: basepeak = yes

429.mcf: -fast -prefetch

445.gobmk: -prof-gen(pass 1) -prof-use(pass 2) -xT -O2 -ipo -no-prec_div -ansi-alias

456.hmmer: -L/opt/intel/cce/10.0.023/lib -I/opt/intel/cce/10.0.023/include -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -ansi-alias

458.sjeng: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4

462.libquantum: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4 -Ob0 -prefetch -opt-streaming-stores always

464.h264ref: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -ansi-alias

C++ benchmarks:

471.omnetpp: -prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo -no-prec_div -ansi-alias -Wl,-z,muldefs -L/opt/SmartHeap_8.1/lib -lsmartheap

473.astar: Same as 471.omnetpp

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/NEC-ic10-linux-flags.20090714.00.html

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You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/NEC-ic10-linux-flags.20090714.00.xml

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

Tested with SPEC CPU2006 v1.0.
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