SPEC® CINT2006 Result

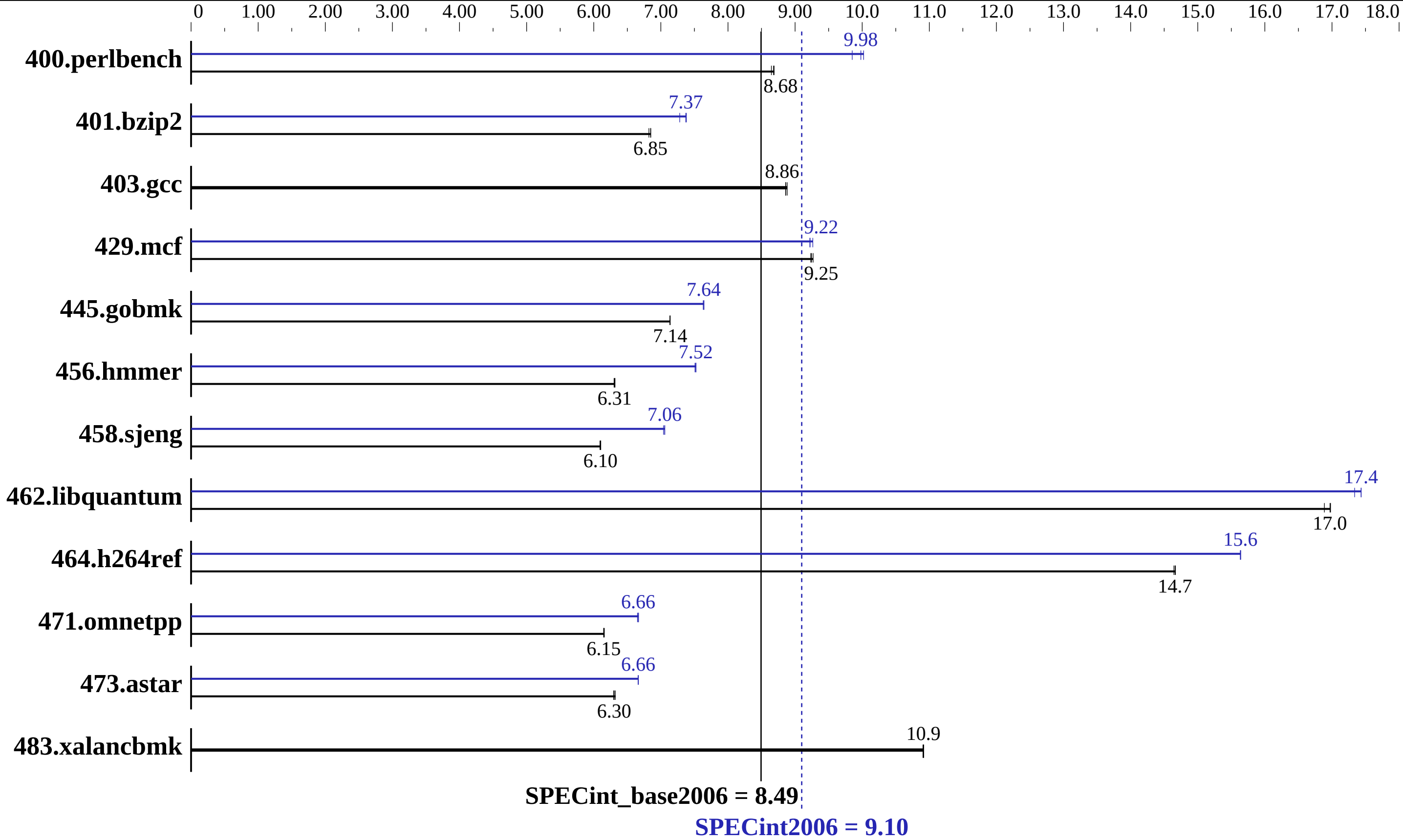
NEC Corporation

Express5800/140Re-4
(Intel Xeon processor 7110M)

SPECint®2006 = 9.10

SPECint_base2006 = 8.49

CPU2006 license:	9006	**Test date:**	Nov-2007
Test sponsor:	NEC Corporation	**Hardware Availability:**	Oct-2006
Tested by:	NEC Corporation	**Software Availability:**	Jun-2007



Hardware

CPU Name:	Intel Xeon 7110M
CPU Characteristics:	2.60 GHz, 800 MHz bus
CPU MHz:	2600
FPU:	Integrated
CPU(s) enabled:	8 cores, 4 chips, 2 cores/chip, 2 threads/core
CPU(s) orderable:	1,2,4 chips
Primary Cache:	12 K micro-ops I + 16 KB D on chip per core
Secondary Cache:	1 MB I+D on chip per core
L3 Cache:	4 MB I+D on chip per chip
Other Cache:	None
Memory:	32 GB (16x2 GB PC2-3200R, 2 rank, CL3-3-3, ECC)
Disk Subsystem:	1x146.5 GB SAS, 15000RPM
Other Hardware:	None

Software

Operating System:	SUSE Linux Enterprise Server 10 (x86_64), Kernel 2.6.16.21-0.8-smp
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

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Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	**1126**	**8.68**	1130	8.65	1125	8.69	**979**	**9.98**	975	10.0	992	9.85
401.bzip2	**1409**	**6.85**	1409	6.85	1415	6.82	1325	7.28	1308	7.38	**1309**	**7.37**
403.gcc	906	8.88	909	8.86	**908**	**8.86**	906	8.88	909	8.86	**908**	**8.86**
429.mcf	984	9.27	**986**	**9.25**	988	9.23	989	9.22	**989**	**9.22**	984	9.26
445.gobmk	1470	7.13	**1469**	**7.14**	1469	7.14	1375	7.63	**1373**	**7.64**	1373	7.64
456.hmmer	1477	6.32	1480	6.30	**1478**	**6.31**	**1240**	**7.52**	1243	7.51	1240	7.52
458.sjeng	1982	6.10	**1983**	**6.10**	1986	6.09	1719	7.04	**1715**	**7.06**	1714	7.06
462.libquantum	1220	17.0	**1221**	**17.0**	1227	16.9	**1189**	**17.4**	1195	17.3	1188	17.4
464.h264ref	1509	14.7	**1509**	**14.7**	1511	14.6	1415	15.6	**1415**	**15.6**	1415	15.6
471.omnetpp	1015	6.16	**1016**	**6.15**	1017	6.15	**938**	**6.66**	940	6.65	937	6.67
473.astar	**1113**	**6.30**	1115	6.30	1110	6.32	1054	6.66	**1054**	**6.66**	1053	6.67
483.xalancbmk	632	10.9	633	10.9	**632**	**10.9**	632	10.9	633	10.9	**632**	**10.9**

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 Express5800/140Hf and the Express5800/140Re-4 models are electronically equivalent.
The results have been measured on a Express5800/140Re-4 model.

Base Compiler Invocation

C benchmarks:
icc -static(*)

C++ benchmarks:
icpc

(*) Indicates a compiler flag that was found in a non-compiler variable.

Base Portability Flags

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

Base Optimization Flags

C benchmarks:
`-xP -ipo -O3 -no-prec-div`

C++ benchmarks:
`-xP -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 -static`(*)

401.bzip2: `/opt/intel/cce/10.0.023/bin/icc`
`-L/opt/intel/cce/10.0.023/lib`
`-I/opt/intel/cce/10.0.023/include`

445.gobmk: `icc`

456.hmmer: `/opt/intel/cce/10.0.023/bin/icc`
`-L/opt/intel/cce/10.0.023/lib`
`-I/opt/intel/cce/10.0.023/include -static`(*)

C++ benchmarks:
`icpc`

(*) Indicates a compiler flag that was found in a non-compiler variable.

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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

Peak Optimization Flags

C benchmarks:

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

401.bzip2: -prof-gen(pass 1) -prof-use(pass 2) -xP -ipo -O3 -no-prec-div

403.gcc: basepeak = yes

429.mcf: -xP -ipo -O3 -no-prec-div -prefetch

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

456.hmmer: -prof-gen(pass 1) -prof-use(pass 2) -xP -ipo -O3 -no-prec-div -unroll2 -ansi-alias

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

462.libquantum: Same as 458.sjeng

464.h264ref: Same as 456.hmmer

C++ benchmarks:

471.omnetpp: -prof-gen(pass 1) -prof-use(pass 2) -xP -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-INT-ia32-intel64-linux-flags.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/NEC-ic10-INT-ia32-intel64-linux-flags.xml

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

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