SPEC® CINT2006 Result

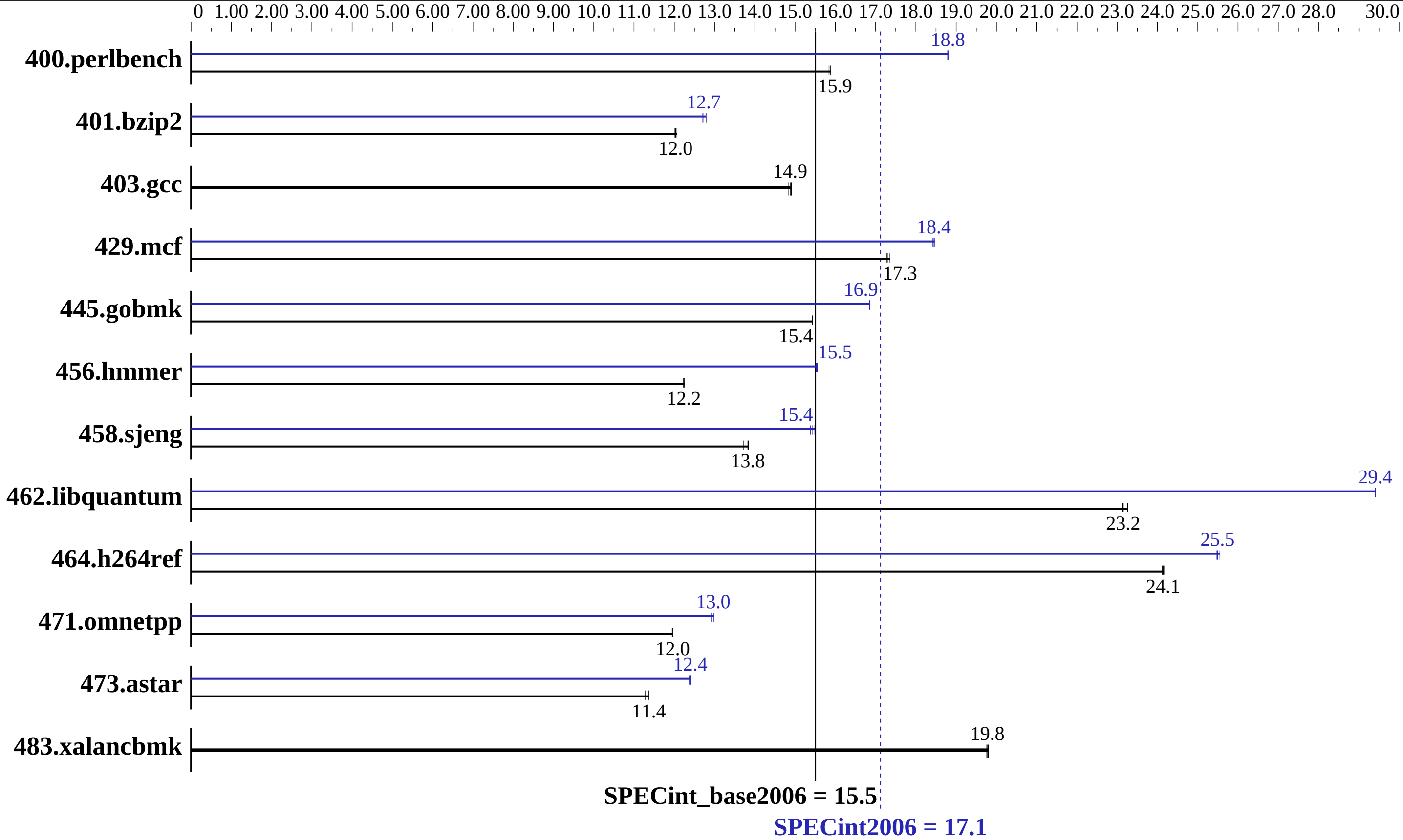
NEC Corporation

Express5800/120Rg-1
(Intel Xeon processor E5345)

SPECint®2006 = 17.1

SPECint_base2006 = 15.5

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



Hardware

CPU Name:	Intel Xeon E5345
CPU Characteristics:	2.33 GHz, 2x4 MB L2 shared, 1333 MHz bus
CPU MHz:	2333
FPU:	Integrated
CPU(s) enabled:	8 cores, 2 chips, 4 cores/chip
CPU(s) orderable:	1,2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	8 MB I+D on chip per chip, 4 MB shared / 2 cores
L3 Cache:	None
Other Cache:	None
Memory:	16 GB (8x2 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

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Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	615	15.9	617	15.8	**616**	**15.9**	520	18.8	520	18.8	**520**	**18.8**
401.bzip2	**802**	**12.0**	800	12.1	804	12.0	760	12.7	**758**	**12.7**	754	12.8
403.gcc	543	14.8	540	14.9	**541**	**14.9**	543	14.8	540	14.9	**541**	**14.9**
429.mcf	528	17.3	525	17.4	**527**	**17.3**	495	18.4	**494**	**18.4**	494	18.5
445.gobmk	679	15.4	680	15.4	**680**	**15.4**	622	16.9	622	16.9	**622**	**16.9**
456.hmmer	761	12.3	763	12.2	**762**	**12.2**	601	15.5	600	15.6	**600**	**15.5**
458.sjeng	**875**	**13.8**	882	13.7	874	13.8	**784**	**15.4**	781	15.5	786	15.4
462.libquantum	896	23.1	**895**	**23.2**	891	23.3	704	29.4	**705**	**29.4**	705	29.4
464.h264ref	**917**	**24.1**	917	24.1	916	24.2	**868**	**25.5**	866	25.6	869	25.5
471.omnetpp	**522**	**12.0**	522	12.0	523	11.9	481	13.0	484	12.9	**482**	**13.0**
473.astar	623	11.3	**617**	**11.4**	617	11.4	568	12.4	566	12.4	**566**	**12.4**
483.xalancbmk	348	19.8	**349**	**19.8**	349	19.8	348	19.8	**349**	**19.8**	349	19.8

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Operating System Notes

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

General Notes

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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 E5345) and
 the Express5800/120Ri-2(Intel Xeon processor E5345) models are electronically equivalent.
 The results have been measured on a Express5800/120Ri-2(Intel Xeon processor E5345) model.
```

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:
-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

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.20090714.01.html

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/NEC-ic10-linux-flags.20090714.01.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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