



SPEC® CINT2006 Result

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Intel Corporation

SPECint®2006 = 30.2

Supermicro X7DB8+ (Intel Xeon X5470)

SPECint_base2006 = 26.3

CPU2006 license: 13

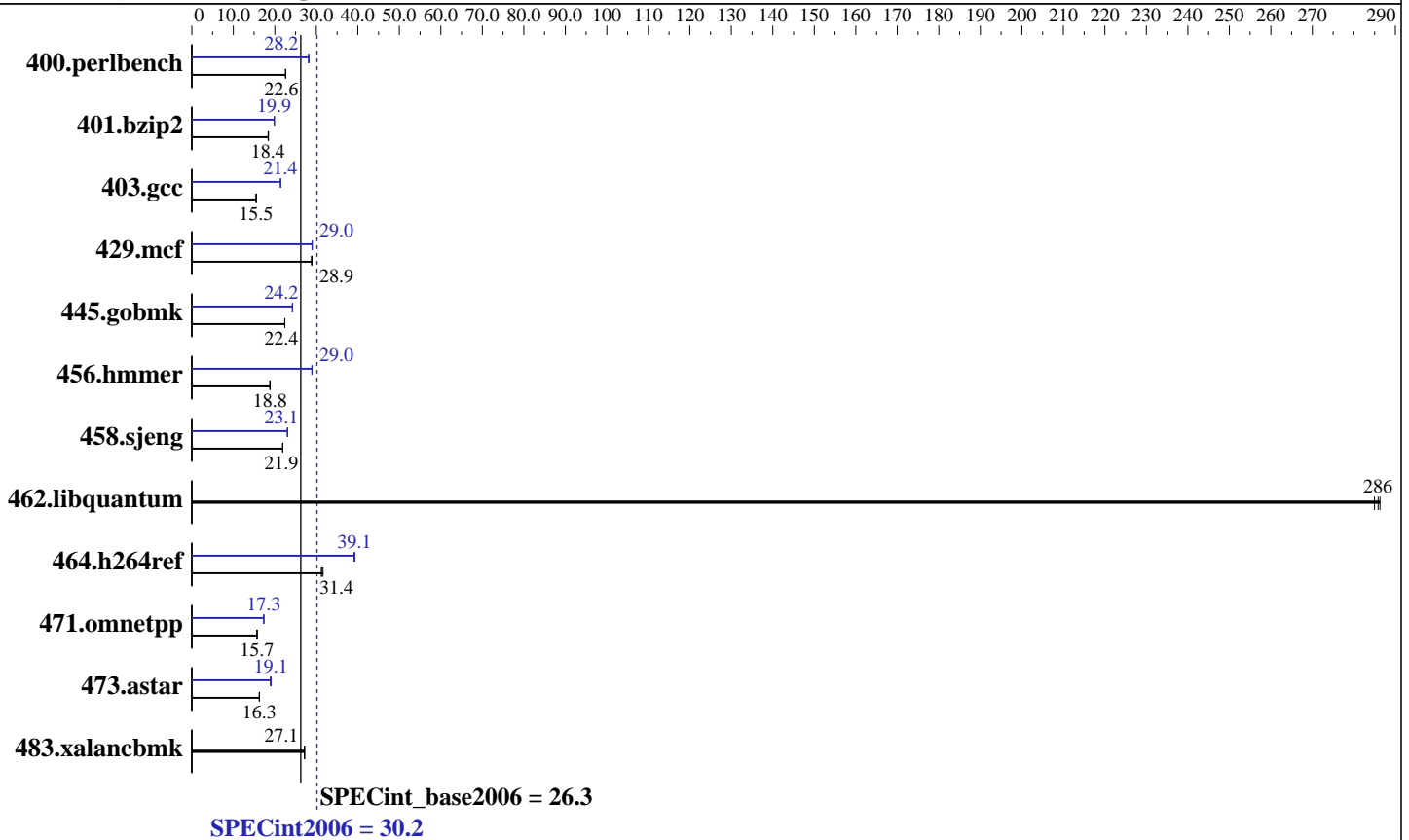
Test sponsor: Intel Corporation

Tested by: Intel Corporation

Test date: Sep-2008

Hardware Availability: Sep-2008

Software Availability: Nov-2008



Hardware

CPU Name: Intel Xeon X5470
 CPU Characteristics: 3333
 CPU MHz: 3333
 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: 12 MB I+D on chip per chip, 6 MB shared / 2 cores
 L3 Cache: None
 Other Cache: None
 Memory: 16 GB(8x2 GB Samsung 5300F, CL5-5-5, 2 rank, ECC)
 Disk Subsystem: 36.4 GB HP SCSI, 15K RPM
 Other Hardware: None

Software

Operating System: SuSe Linux SLES10 SP2
 Compiler: Intel C++ Compiler 11.0 for Linux
 Build 20080730 Package ID: l_cproc_b_11.0.042
 Auto Parallel: Yes
 File System: ReiserFS
 System State: Run level 3 (multi-user)
 Base Pointers: 32-bit
 Peak Pointers: 32/64-bit
 Other Software: Microquill SmartHeap V8.1
 Binutils 2.18.50.0.7.20080502



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Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	433	22.6	432	22.6	<u>432</u>	<u>22.6</u>	346	28.2	<u>347</u>	<u>28.2</u>	348	28.1
401.bzip2	522	18.5	525	18.4	<u>525</u>	<u>18.4</u>	<u>486</u>	<u>19.9</u>	485	19.9	486	19.9
403.gcc	520	15.5	<u>519</u>	<u>15.5</u>	518	15.5	376	21.4	377	21.3	<u>376</u>	<u>21.4</u>
429.mcf	316	28.8	<u>315</u>	<u>28.9</u>	315	28.9	315	29.0	314	29.0	<u>314</u>	<u>29.0</u>
445.gobmk	468	22.4	469	22.4	<u>468</u>	<u>22.4</u>	433	24.2	<u>433</u>	<u>24.2</u>	432	24.3
456.hmmmer	<u>495</u>	<u>18.8</u>	495	18.8	495	18.8	322	28.9	<u>322</u>	<u>29.0</u>	322	29.0
458.sjeng	<u>552</u>	<u>21.9</u>	553	21.9	552	21.9	<u>524</u>	<u>23.1</u>	526	23.0	524	23.1
462.libquantum	72.4	286	72.7	285	<u>72.5</u>	<u>286</u>	72.4	286	72.7	285	<u>72.5</u>	<u>286</u>
464.h264ref	709	31.2	700	31.6	<u>705</u>	<u>31.4</u>	566	39.1	<u>565</u>	<u>39.1</u>	563	39.3
471.omnetpp	399	15.7	<u>398</u>	<u>15.7</u>	396	15.8	361	17.3	360	17.4	<u>360</u>	<u>17.3</u>
473.astar	430	16.3	<u>431</u>	<u>16.3</u>	432	16.2	371	18.9	368	19.1	<u>368</u>	<u>19.1</u>
483.xalanbmk	254	27.2	254	27.1	<u>254</u>	<u>27.1</u>	254	27.2	254	27.1	<u>254</u>	<u>27.1</u>

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

General Notes

All benchmarks compiled in 32-bit mode except 401.bzip2 and 456.hmmmer,
for peak, are compiled in 64-bit mode
OMP_NUM_THREADS set to number of processors
KMP_AFFINITY set to "physical,0"
Adjacent Cache Line Prefetcher: 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.xalanbmk: -DSPEC_CPU_LINUX



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Base Optimization Flags

C benchmarks:

```
-xSSE4.1 -ipo -O3 -no-prec-div -static -parallel  
-par-runtime-control -opt-prefetch
```

C++ benchmarks:

```
-xSSE4.1 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs  
-L/spec/cpu2006.1.1/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/11.0/042/bin/intel64/icc  
-L/opt/intel/Compiler/11.0/042/ipp/em64t/lib  
-I/opt/intel/Compiler/11.0/042/ipp/em64t/include
```

```
456.hmmer: /opt/intel/Compiler/11.0/042/bin/intel64/icc  
-L/opt/intel/Compiler/11.0/042/ipp/em64t/lib  
-I/opt/intel/Compiler/11.0/042/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  
462.libquantum: -DSPEC_CPU_LINUX  
483.xalancbmk: -DSPEC_CPU_LINUX
```

Peak Optimization Flags

C benchmarks:

Continued on next page



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Peak Optimization Flags (Continued)

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 -auto-ilp32 -opt-prefetch
-ansi-alias

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

429.mcf: -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.hmmcr: -xSSE4.1 -ipo -O3 -no-prec-div -static -unroll2
-ansi-alias -auto-ilp32

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/spec/cpu2006.1.1/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/spec/cpu2006.1.1/lib -lsmartheap

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/Intel-ic11.0-int-linux64-revA.20090713.06.html>



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You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revA.20090713.06.xml>

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