### SPECint®2006 = 33.0

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>SPECint2006</th>
<th>SPECint_base2006</th>
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<tr>
<td>perlbench</td>
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<tr>
<td>bzip2</td>
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<tr>
<td>gcc</td>
<td>25.3</td>
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<tr>
<td>mcf</td>
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<tr>
<td>gobmk</td>
<td>23.4</td>
<td>22.1</td>
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<tr>
<td>hammer</td>
<td>20.7</td>
<td>20.3</td>
</tr>
<tr>
<td>sjeng</td>
<td>22.1</td>
<td>22.6</td>
</tr>
<tr>
<td>libquantum</td>
<td>20.7</td>
<td>33.1</td>
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</tbody>
</table>

**CPU Name:** Intel Xeon E5630  
**CPU Characteristics:** Intel Turbo Boost Technology up to 2.80 GHz  
**CPU MHz:** 2533  
**FPU:** Integrated  
**CPU(s) enabled:** 8 cores, 2 chips, 4 cores/chip, 2 threads/core  
**Other Cache:** None  
**Memory:** 48 GB (12 x 4 GB DDR3-1066 RDIMM, ECC, CL7)  
**Disk Subsystem:** 1 x 300 GB SATA II, 7200 RPM
Supermicro

Motherboard X8DT3-LN4F (Intel Xeon E5630, 2.53GHz)

SPECint2006 = 33.0
SPECint_base2006 = 30.7

CPU2006 license: 001176
Test sponsor: Supermicro
Test date: May-2010
Hardware Availability: Mar-2010
Tested by: Supermicro
Software Availability: Jan-2010

Results Table

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<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
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<td>30.7</td>
</tr>
</tbody>
</table>

Operating System Notes

'ulimit -s unlimited' was used to set the stack size to unlimited prior to run
OMP_NUM_THREADS set to number of cores
KMP_AFFINITY set to granularity=fine,scatter

Platform Notes

Fan speed set to Full Speed in BIOS Setup.
As tested, the system used a Supermicro
SUPERMICRO PWS-865-PQ power supply, 2 SNK-P0037P heatsinks,
along with 2 Nidec UltraFlo T92T12MMA7-57 T072 and
1 SAN Cooler XF-P01603 and
1 JMC 1225-12HB cooling fans.

General Notes

Binaries were compiled on SLES 10 with Binutils 2.18.50.0.7.20080502

Base Compiler Invocation

C benchmarks:
    icc -m64

C++ benchmarks:
    icpc -m64
Supermicro

Motherboard X8DT3-LN4F (Intel Xeon E5630, 2.53GHz)

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SPECint_base2006 = 30.7

CPU2006 license: 001176
Test sponsor: Supermicro
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Test date: May-2010
Hardware Availability: Mar-2010
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Base Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64
429.mcf: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
464.h264ref: -DSPEC_CPU_LP64
471.omnetpp: -DSPEC_CPU_LP64
473.astar: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel -opt-prefetch

C++ benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs

Base Other Flags

C benchmarks:
403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):
icc -m64
400.perlbench: icc -m32
429.mcf: icc -m32
445.gobmk: icc -m32
464.h264ref: icc -m32

C++ benchmarks (except as noted below):
icpc -m32

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SPEC CINT2006 Result

Supermicro
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Peak Compiler Invocation (Continued)

473.astar: icpc -m64

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
473.astar: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(pass 2) -no-prec-div(pass 2) -static(pass 2)
-ipo(pass 2) -ansi-alias -opt-prefetch

401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(pass 2) -no-prec-div -static(pass 2) -prof-use(pass 2)
-auto-ilp32 -opt-prefetch -ansi-alias

403.gcc: -xSSE4.2 -ipo -03 -no-prec-div -static -inline-calloc
-opt-malloc-options=3 -auto-ilp32

429.mcf: -xSSE4.2 -ipo -03 -no-prec-div -static -opt-prefetch

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2) -02
-ipo -no-prec-div -ansi-alias

456.hmmer: -xSSE4.2 -ipo -03 -no-prec-div -static -unroll12
-ansi-alias -auto-ilp32

458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(pass 2) -no-prec-div(pass 2) -static(pass 2)
-prof-use(pass 2) -unroll4

462.libquantum: -xSSE4.2 -ipo -03 -no-prec-div -static -parallel
-opt-prefetch -par-schedule-static=32768 -ansi-alias

464.h264ref: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(pass 2) -no-prec-div(pass 2) -static(pass 2)
-prof-use(pass 2) -unroll12 -ansi-alias

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### SPEC CINT2006 Result

**Supermicro**

Motherboard X8DT3-LN4F (Intel Xeon E5630, 2.53GHz)

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**Test sponsor:** Supermicro

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**Hardware Availability:** Mar-2010  
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**Peak Optimization Flags (Continued)**

**C++ benchmarks:**

471.omnetpp: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)  
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)  
-ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs  

473.astar: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)  
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)  
-ansi-alias -opt-ra-region-strategy=routine -Wl,-z,muldefs  

483.xalancbmk: -xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch  
-Wl,-z,muldefs  

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**Peak Other Flags**

**C benchmarks:**

403.gcc: -Dalloca=_alloca

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The flags file that was used to format this result can be browsed at [http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100316.html](http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100316.html)

You can also download the XML flags source by saving the following link: [http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100316.xml](http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revE.20100316.xml)

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For other inquiries, please contact webmaster@spec.org.

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