Fujitsu Siemens Computers

CELSIUS R650, Intel Xeon X5260, 3.33 GHz

SPECint®2006 = 27.1
SPECint_base2006 = 22.6

CPU2006 license: 22
Test sponsor: Fujitsu Siemens Computers
Tested by: Fujitsu Siemens Computers

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Hardware

CPU Name: Intel Xeon X5260
CPU Characteristics:
CPU MHz: 3333
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: 6 MB I+D on chip per chip
L3 Cache: None
Other Cache: None
Memory: 8 GB (8x1 GB PC2-5300F, 2 rank, CL5-5-5- ECC)
Disk Subsystem: 1 x SATA II, 400 GB, 7200 rpm
Other Hardware: None

Operating System: SUSE Linux Enterprise Server 10 (x86_64) SP1, Kernel 2.6.16.46-0.12-smp
Compiler: Intel C++ Compiler for Linux32 and Linux64, Version 10.1, Build 20070913
Auto Parallel: Yes
File System: ext3
System State: Multi-User, Run Level 3
Base Pointers: 32-bit
Peak Pointers: 32/64-bit
Other Software: MicroQuill SmartHeap Library, Version 8.1, binutils-2.17.50.0.5-0.1.x86_64
## Fujitsu Siemens Computers

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### SPECint2006 Result

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Base</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Peak</th>
<th>Seconds</th>
<th>Ratio</th>
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<tbody>
<tr>
<td>400.perlbench</td>
<td>453</td>
<td>21.6</td>
<td>454</td>
<td>21.5</td>
<td>453</td>
<td>21.6</td>
<td>367</td>
<td>26.6</td>
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<tr>
<td>401.bzip2</td>
<td>534</td>
<td>18.1</td>
<td>535</td>
<td>18.0</td>
<td>539</td>
<td>17.9</td>
<td>497</td>
<td>19.4</td>
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<tr>
<td>403.gcc</td>
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<td>16.8</td>
<td>479</td>
<td>16.8</td>
<td>478</td>
<td>16.8</td>
<td>392</td>
<td>20.5</td>
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<tr>
<td>429.mcf</td>
<td>406</td>
<td>22.5</td>
<td>405</td>
<td>22.5</td>
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<td>22.5</td>
<td>374</td>
<td>24.4</td>
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<tr>
<td>445.gobmk</td>
<td>485</td>
<td>21.7</td>
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<td>21.7</td>
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<td>21.7</td>
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<td>24.0</td>
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<tr>
<td>456.hmmer</td>
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<td>17.5</td>
<td>307</td>
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<td>458.sjeng</td>
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<td>19.4</td>
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<td>19.4</td>
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<td>64.0</td>
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<td>66.4</td>
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<td>34.6</td>
<td>600</td>
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<tr>
<td>471.omnetpp</td>
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<td>15.8</td>
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<tr>
<td>473.astar</td>
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<tr>
<td>483.xalancbmk</td>
<td>245</td>
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<td>245</td>
<td>28.2</td>
<td>245</td>
<td>28.2</td>
</tr>
</tbody>
</table>

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

OMP_NUM_THREADS set to number of cores (default)

### Platform Notes

BIOS configuration:
Enhanced Speedstep Technology = Disable
Hardware Prefetch = Enable, Adjacent Sector Prefetch = Enable
SnoopFilter = Disable

### General Notes

All binaries were built with 32-bit Intel compiler except:
401.bzip2 and 456.hmmer in peak were built with 64-bit Intel compiler by changing the path for include and library files.

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http://www.fujitsu-siemens.com/countries

### Base Compiler Invocation

C benchmarks:

```
icc
```
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Hardware Availability: Jan-2008
Tested by: Fujitsu Siemens Computers
Software Availability: Nov-2007

Base Compiler Invocation (Continued)

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 -vec-guard-write -parallel -par-runtime-control
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):
iccc

401.bzip2: /opt/intel/cce/10.1.008/bin/iccc
-L/opt/intel/cce/10.1.008/lib
-I/opt/intel/cce/10.1.008/include

456.hmmer: /opt/intel/cce/10.1.008/bin/iccc
-L/opt/intel/cce/10.1.008/lib
-I/opt/intel/cce/10.1.008/include

C++ benchmarks:
icpc
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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) -fast -ansi-alias
-prefetch
401.bzip2: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch
-auto-ilp32
403.gcc: -fast -inline-cALLOC -opt-malloc-options=3
429.mcf: -fast -prefetch
445.gobmk: -prof-gen(pass 1) -prof-use(pass 2) -xT -O2 -ipo
-no-prec-div -ansi-alias
456.hmmer: -fast -unroll2 -ansi-alias -opt-multi-version-aggressive
-auto-ilp32
458.sjeng: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4
462.libquantum: -fast -unroll4 -Ob0 -prefetch
-opt-streaming-stores always -vec-guard-write
-opt-malloc-options=3 -parallel -par-runtime-control
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 -opt-ra-region-strategy=block
-Wl,-z,muldefs -L/opt/SmartHeap_8.1/lib -lsmartheap
473.astar: -prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo
-no-prec-div -ansi-alias -opt-ra-region-strategy=routine
-Wl,-z,muldefs -L/opt/SmartHeap_8.1/lib -lsmartheap
483.xalancbmk: basepeak = yes
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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-ic10-ia32-intel64-linux-flags.20090714.03.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic10-ia32-intel64-linux-flags.20090714.03.xml

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

Tested with SPEC CPU2006 v1.0.
Originally published on 19 February 2008.