## SPECint®_rate2006 = 178

### SPECint_rate_base2006 = 167

<table>
<thead>
<tr>
<th>SPECint Benchmark</th>
<th>Result</th>
<th>SPECint_rate2006</th>
<th>SPECint_rate_base2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>400.perlbench</td>
<td>154</td>
<td>178</td>
<td>167</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>133</td>
<td>178</td>
<td>261</td>
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<tr>
<td>403.gcc</td>
<td>158</td>
<td>180</td>
<td>237</td>
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<tr>
<td>429.mcf</td>
<td>184</td>
<td>193</td>
<td>257</td>
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<tr>
<td>445.gobmk</td>
<td>158</td>
<td>178</td>
<td>261</td>
</tr>
<tr>
<td>456.hmmer</td>
<td>180</td>
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<td>458.sjeng</td>
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<tr>
<td>462.libquantum</td>
<td>236</td>
<td>236</td>
<td>257</td>
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<tr>
<td>464.h264ref</td>
<td>231</td>
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<td>257</td>
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<tr>
<td>471.omnetpp</td>
<td>115</td>
<td>115</td>
<td>215</td>
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<tr>
<td>473.astar</td>
<td>111</td>
<td>111</td>
<td>215</td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>104</td>
<td>177</td>
<td>237</td>
</tr>
</tbody>
</table>

**Hardware**

- **CPU Name:** Intel Xeon X5660
- **CPU Characteristics:** Intel Turbo Boost Technology up to 3.20 GHz
- **CPU MHz:** 2800
- **FPU:** Integrated
- **CPU(s) enabled:** 6 cores, 1 chip, 6 cores/chip, 2 threads/core
- **Primary Cache:** 32 KB I + 32 KB D on chip per core
- **Secondary Cache:** 256 KB I+D on chip per core
- **L3 Cache:** 12 MB I+D on chip per chip
- **Other Cache:** None
- **Memory:** 24 GB (3x8 GB PC3-10600R, 2 rank, CL9-9-9, ECC)
- **Disk Subsystem:** 1 x SAS, 300 GB, 10000 RPM
- **Other Hardware:** None

**Software**

- **Operating System:** SUSE Linux Enterprise Server 11 (x86_64), Kernel 2.6.27.19-5-default
- **Compiler:** Intel C++ Professional Compiler for IA32 and Intel 64, Version 11.1, Build 20091130 Package ID: l_cproc_p_11.1.064
- **Auto Parallel:** No
- **File System:** ext3
- **System State:** Multi-User Run Level 3
- **Base Pointers:** 32-bit
- **Peak Pointers:** 32/64-bit
- **Other Software:** Microquill SmartHeap V8.1

---

Standard Performance Evaluation Corporation
info@spec.org
http://www.spec.org/
**Results Table**

<table>
<thead>
<tr>
<th>Benchmark</th>
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<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
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</tr>
</tbody>
</table>

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

**Submit Notes**

The config file option 'submit' was used.
numactl was used to bind copies to the cores

**Operating System Notes**

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

**Platform Notes**

BIOS configuration:
Data Reuse Optimization = Disable
Performance/Power Setting = Traditional

**General Notes**

For information about Fujitsu please visit: http://www.fujitsu.com
Binaries were compiled on SLES 10 with Binutils 2.18.50.0.7.20080502

**Base Compiler Invocation**

C benchmarks:

```
icc  -m32
```
Fujitsu

PRIMERGY BX920 S2, Intel Xeon X5660, 2.80 GHz

SPEC CINT2006 Result

SPECint_rate2006 = 178
SPECint_rate_base2006 = 167

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Test date: Jul-2010
Hardware Availability: May-2010
Software Availability: Jan-2010

Base Compiler Invocation (Continued)

C++ benchmarks:
icpc -m32

Base Portability Flags

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

Base Optimization Flags

C benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -static -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 -m32
401.bzip2: icc -m64
456.hmmer: icc -m64
458.sjeng: icc -m64
C++ benchmarks (except as noted below):
icpc -m32
473.astar: icpc -m64

Fujitsu

PRIMERGY BX920 S2, Intel Xeon X5660, 2.80 GHz

SPECint_rate2006 = 178
SPECint_rate_base2006 = 167

CPU2006 license: 19
Test sponsor: Fujitsu
Tested by: Fujitsu

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
401.bzip2: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -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)
-prof-use(pass 2) -ansi-alias

401.bzip2: -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) -opt-prefetch -ansi-alias -auto-ilp32

403.gcc: -xSSE4.2 -ipo -03 -no-prec-div -static

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) -O2
-ipo -no-prec-div -ansi-alias

456.hmmer: -xSSE4.2 -ipo -03 -no-prec-div -static -unroll2
-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 -auto-ilp32

462.libquantum: basepeak = yes

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) -unroll2 -ansi-alias

C++ benchmarks:

471.omnetpp: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs

Continued on next page
SPEC CINT2006 Result

Fujitsu

PRIMERGY BX920 S2, Intel Xeon X5660, 2.80 GHz

CPU2006 license: 19  
Test sponsor: Fujitsu  
Tested by: Fujitsu  
Test date: Jul-2010  
Hardware Availability: May-2010  
Software Availability: Jan-2010

SPECint_rate2006 = 178  
SPECint_rate_base2006 = 167

Peak Optimization Flags (Continued)

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: 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

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