## SPEC® CINT2006 Result

**Fujitsu**

PRIMERGY RX350 S7, Intel Xeon E5-2603, 1.80 GHz

<table>
<thead>
<tr>
<th>SPECint®2006</th>
<th>28.0</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECint_base2006</td>
<td>26.7</td>
</tr>
</tbody>
</table>

### CPU2006 Details
- **CPU2006 license:** 19
- **Test sponsor:** Fujitsu
- **Tested by:** Fujitsu
- **Test date:** Feb-2012
- **Hardware Availability:** Mar-2012
- **Software Availability:** Dec-2011

### Hardware

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU Name</td>
<td>Intel Xeon E5-2603</td>
</tr>
<tr>
<td>CPU Characteristics</td>
<td></td>
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<tr>
<td>CPU MHz</td>
<td>1800</td>
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<tr>
<td>FPU</td>
<td>Integrated</td>
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<tr>
<td>CPU(s) enabled</td>
<td>8 cores, 2 chips, 4 cores/chip</td>
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<tr>
<td>CPU(s) orderable</td>
<td>1.2 chips</td>
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<tr>
<td>Primary Cache</td>
<td>32 KB I + 32 KB D on chip per core</td>
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<tr>
<td>Secondary Cache</td>
<td>256 KB I+D on chip per core</td>
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<tr>
<td>L3 Cache</td>
<td>10 MB I+D on chip per chip</td>
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<tr>
<td>Other Cache</td>
<td>None</td>
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<tr>
<td>Memory</td>
<td>128 GB (16 x 8 GB 2Rx4 PC3L-12800R-11, ECC, running at 1067 MHz and CL7)</td>
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<tr>
<td>Disk Subsystem</td>
<td>1 x SATA, 500 GB, 7200 RPM</td>
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<td>Other Hardware</td>
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### Software

<table>
<thead>
<tr>
<th>Specification</th>
<th>Details</th>
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</thead>
<tbody>
<tr>
<td>Operating System</td>
<td>Red Hat Enterprise Linux Server release 6.2 (Santiago)</td>
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<tr>
<td>Compiler</td>
<td>C/C++: Version 12.1.0.225 of Intel C++ Studio XE for Linux</td>
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<tr>
<td>Auto Parallel</td>
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<tr>
<td>File System</td>
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<tr>
<td>System State</td>
<td>Run level 3 (multi-user)</td>
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<tr>
<td>Base Pointers</td>
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<td>Peak Pointers</td>
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<td>Other Software</td>
<td>Microquill SmartHeap V9.01</td>
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</tbody>
</table>
Fujitsu

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SPECint_base2006 = 26.7

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Results Table

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<thead>
<tr>
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<td>28.7</td>
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</tbody>
</table>

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes

BIOS configuration:
Frequency Floor Override = Enable

General Notes

Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,scatter"
LD_LIBRARY_PATH = "/SPECcpu2006/libs/32:/SPECcpu2006/libs/64"
OMP_NUM_THREADS = "8"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RHEL5.5
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
This result was measured on the PRIMERGY RX350 S7. The PRIMERGY RX350 S7
and the PRIMERGY TX300 S7 are electronically equivalent.
For information about Fujitsu please visit: http://www.fujitsu.com
Fujitsu

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### Base Compiler Invocation

C benchmarks:

- `icc` `-m64`

C++ benchmarks:

- `icpc` `-m64`

### 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 -parallel -opt-prefetch -auto-p32`

C++ benchmarks:

- `-xsSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -auto-p32`
- `-Wl,-z,muldefs -L/smartheap -lsmartheap64`

### Base Other Flags

C benchmarks:

- `403.gcc`: `-Dalloca=_alloca`

### Peak Compiler Invocation

C benchmarks (except as noted below):

- `icc` `-m64`

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Peak Compiler Invocation (Continued)

400.perlbench: icc -m32
445.gobmk: icc -m32
464.h264ref: icc -m32

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

473.astar: icpc -m64

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64
429.mcf: -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)
-o3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-opt-prefetch -ansi-alias

401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-o3(pass 2) -no-prec-div -prof-use(pass 2) -auto-ilp32
-opt-prefetch -ansi-alias

403.gcc: -xSSE4.2 -ipo -o3 -no-prec-div -inline-calloc
-opt-malloc-options=3 -auto-ilp32

429.mcf: basepeak = yes

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
-ansi-alias

456.hmmer: -xSSE4.2 -ipo -o3 -no-prec-div -unroll2 -auto-ilp32
-ansi-alias

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### Peak Optimization Flags (Continued)

- 458.sjeng: `-xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -o3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll4`
- 462.libquantum: `basepeak = yes`
- 464.h264ref: `-xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -o3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2) -unroll2 -ansi-alias`
- **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) -opt-ra-region-strategy=block -ansi-alias -Wl,-z,muldefs -L/smartheap -lsmartheap`
- 473.astar: `basepeak = yes`
- 483.xalancbmk: `-xSSE4.2 -ipo -o3 -no-prec-div -opt-prefetch -ansi-alias -Wl,-z,muldefs -L/smartheap -lsmartheap`

### Peak Other Flags

- **C benchmarks:**
  - 403.gcc: `-Dalloca=_alloca`

The flags files that were used to format this result can be browsed at:


You can also download the XML flags sources by saving the following links:

- [http://www.spec.org/cpu2006/flags/Fujitsu-Platform.20120320.xml](http://www.spec.org/cpu2006/flags/Fujitsu-Platform.20120320.xml)

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