Fujitsu Siemens Computers

PRIMERGY RX200 S3, Intel Xeon processor E5310, 1.60 GHz

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

Hardware

CPU Name: Intel Xeon E5310
CPU Characteristics: 1067 MHz system bus
CPU MHz: 1600
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: 8 MB I+D on chip per chip, 4 MB shared / 2 cores
L3 Cache: None
Other Cache: None
Memory: 16 GB (8x2 GB DDR2 PC2-5300F, 2 rank, CAS 5-5-5, with ECC)
Disk Subsystem: SAS (73GB 15400 rpm)
Other Hardware: None

Software

Operating System: 64-Bit SUSE LINUX Enterprise Server 10, Kernel 2.6.16.21-0.8-smp on an x86_64
Auto Parallel: No
File System: ext2
System State: Multiuser, Runlevel 3
Base Pointers: 32-bit
Peak Pointers: 32/64-bit
Other Software: Smart Heap Library, Version 8.1

SPECint_rate2006 = 62.6
SPECint_rate_base2006 = 59.4
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Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run
'/usr/bin/taskset' used to bind processes to CPUs

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
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<td>400.perlbench</td>
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<td>83.6</td>
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<td>82.7</td>
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<td>50.5</td>
<td>1524</td>
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<td>403.gcc</td>
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<td>1066</td>
<td>60.4</td>
<td>1063</td>
<td>60.6</td>
<td>1069</td>
<td>60.2</td>
<td>8</td>
<td>1066</td>
<td>60.4</td>
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<tr>
<td>429.mcf</td>
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</tr>
</tbody>
</table>

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

General Notes

The system bus runs at 1067 MHz

All binaries were built with 32-bit Intel compiler except:
401.bzip2, 456.hmmer and 462.libquantum in peak were built with
64-bit Intel compiler by changing the path for include and library files.

BIOS configuration:
Hardware Prefetch = Disable, Adjacent Sector Prefetch = Disable

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

Base Compiler Invocation

C benchmarks:
  icc

C++ benchmarks:
  icpc
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Test date: May-2007
Hardware Availability: Nov-2006
Software Availability: Mar-2007

Base Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_X64
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
- fast

C++ benchmarks:
-XP -O3 -ipo -no-prec-div -L/opt/SmartHeap_8_1/lib -lsmartheap

Peak Compiler Invocation

C benchmarks (except as noted below):
icc

401.bzip2: /opt/intel/cce/9.1.047/bin/icc
-1/opt/intel/cce/9.1.047/include
-L/opt/intel/cce/9.1.047/lib

456.hmmer: /opt/intel/cce/9.1.047/bin/icc
-1/opt/intel/cce/9.1.047/include
-L/opt/intel/cce/9.1.047/lib

462.libquantum: /opt/intel/cce/9.1.047/bin/icc
-1/opt/intel/cce/9.1.047/include
-L/opt/intel/cce/9.1.047/lib

C++ benchmarks:
icpc

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX
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Peak Optimization Flags

C benchmarks:
400.perlbench: -prof_gen(pass 1) -prof_use(pass 2) -fast
401.bzip2: -fast
403.gcc: basepeak = yes
429.mcf: -prof_gen(pass 1) -prof_use(pass 2) -fast
-L/opt/SmartHeap_8_1/lib -lsmartheap
445.gobmk: Same as 429.mcf
456.hmmer: Same as 400.perlbench
458.sjeng: Same as 429.mcf
462.libquantum: Same as 400.perlbench
464.h264ref: Same as 429.mcf

C++ benchmarks:
471.omnetpp: -prof_gen(pass 1) -prof_use(pass 2) -xP -O3 -ipo
-no-prec-div -L/opt/SmartHeap_8_1/lib -lsmartheap
473.astar: -prof_gen(pass 1) -prof_use(pass 2) -fast
-L/opt/SmartHeap_8_1/lib -lsmartheap
483.xalancbmk: basepeak = yes

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:
http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.09.xml

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Tested with SPEC CPU2006 v1.0.
Originally published on 26 June 2007.