Fujitsu Siemens Computers
PRIMERGY RX300 S3, Intel Xeon processor E5320, 1.86 GHz

<table>
<thead>
<tr>
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**CPU2006 license:** 22
**Test sponsor:** Fujitsu Siemens Computers
**Tested by:** Fujitsu Siemens Computers
**Test date:** Apr-2007
**Hardware Availability:** Nov-2006
**Software Availability:** Feb-2007

<table>
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<td>58.3</td>
</tr>
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</tr>
</tbody>
</table>

**Hardware**

- **CPU Name:** Intel Xeon E5320
- **CPU Characteristics:** 1067 MHz system bus
- **CPU MHz:** 1867
- **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
- **Compiler:** Intel C++ Compiler for IA32/EM64T application, Version 9.1 - Build 20070215, Package-ID: l_cc_p_9.1.047
- **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
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SPECint_rate2006 = 68.6
SPECint_rate_base2006 = 65.2

Test date: Apr-2007
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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

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

The PRIMERGY RX300 S3 and the PRIMERGY TX300 S3 are electronically equivalent.

For information about Fujitsu Siemens Computers in your country please see:
http://www.fujitsu-siemens.com/countries

Base Compiler Invocation

C benchmarks: icc

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

### Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
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Base Compiler Invocation (Continued)

C++ benchmarks:

icpc

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
    -I/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
    -I/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
    -I/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

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Peak Portability Flags (Continued)

456.hmmer: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

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.