## SPEC® CINT2006 Result

**Fujitsu Siemens Computers**

PRIMERGY TX150 S5, Intel Pentium D processor 945, 3.40 GHz

<table>
<thead>
<tr>
<th>SPECint_rate_base2006</th>
<th>20.5</th>
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<tbody>
<tr>
<td>SPECint_rate2006</td>
<td>21.4</td>
</tr>
</tbody>
</table>

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

### Hardware

- **CPU Name:** Intel Pentium D 945  
- **CPU Characteristics:** 800 MHz system bus  
- **CPU MHz:** 3400  
- **FPU:** Integrated  
- **CPU(s) enabled:** 2 cores, 1 chip, 2 cores/chip  
- **CPU(s) orderable:** 1 chip  
- **Primary Cache:** 12 K micro-ops I + 16 KB D on chip per core  
- **Secondary Cache:** 2 MB I+D on chip per core  
- **L3 Cache:** None  
- **Memory:** 8 GB (4x2 GB DDR2 PC2-4200E, 2 rank, CAS 4-4-4, with ECC)  
- **Disk Subsystem:** SATA (160GB 7200 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:** ReiserFS  
- **System State:** Multiuser, Runlevel 3  
- **Base Pointers:** 32-bit  
- **Peak Pointers:** 32/64-bit  
- **Other Software:** Smart Heap Library, Version 8.1

### Result

- **400.perlbench:** 24.1  
- **401.bzip2:** 22.4  
- **403.gcc:** 22.5  
- **429.mcf:** 23.2  
- **445.gobmk:** 19.8  
- **456.hmmer:** 19.5  
- **458.sjeng:** 18.5  
- **462.libquantum:** 19.4  
- **464.h264ref:** 39.9  
- **471.omnetpp:** 18.8  
- **473.astar:** 15.5  
- **483.xalancbmk:** 28.2

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SPECint_rate2006 = 21.4
SPECint_rate_base2006 = 20.5

Results Table

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</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 '/usr/bin/taskset' used to bind processes to CPUs

General Notes

The system bus runs at 800 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.

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Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc
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SPECint_rate2006 = 21.4
SPECint_rate_base2006 = 20.5

CPU2006 license: 22
Test sponsor: Fujitsu Siemens Computers
Test date: May-2007
Tested by: Fujitsu Siemens Computers
Hardware Availability: Sep-2006
Tested by: Fujitsu Siemens Computers
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 -G3 -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
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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