# SPEC® CINT2006 Result



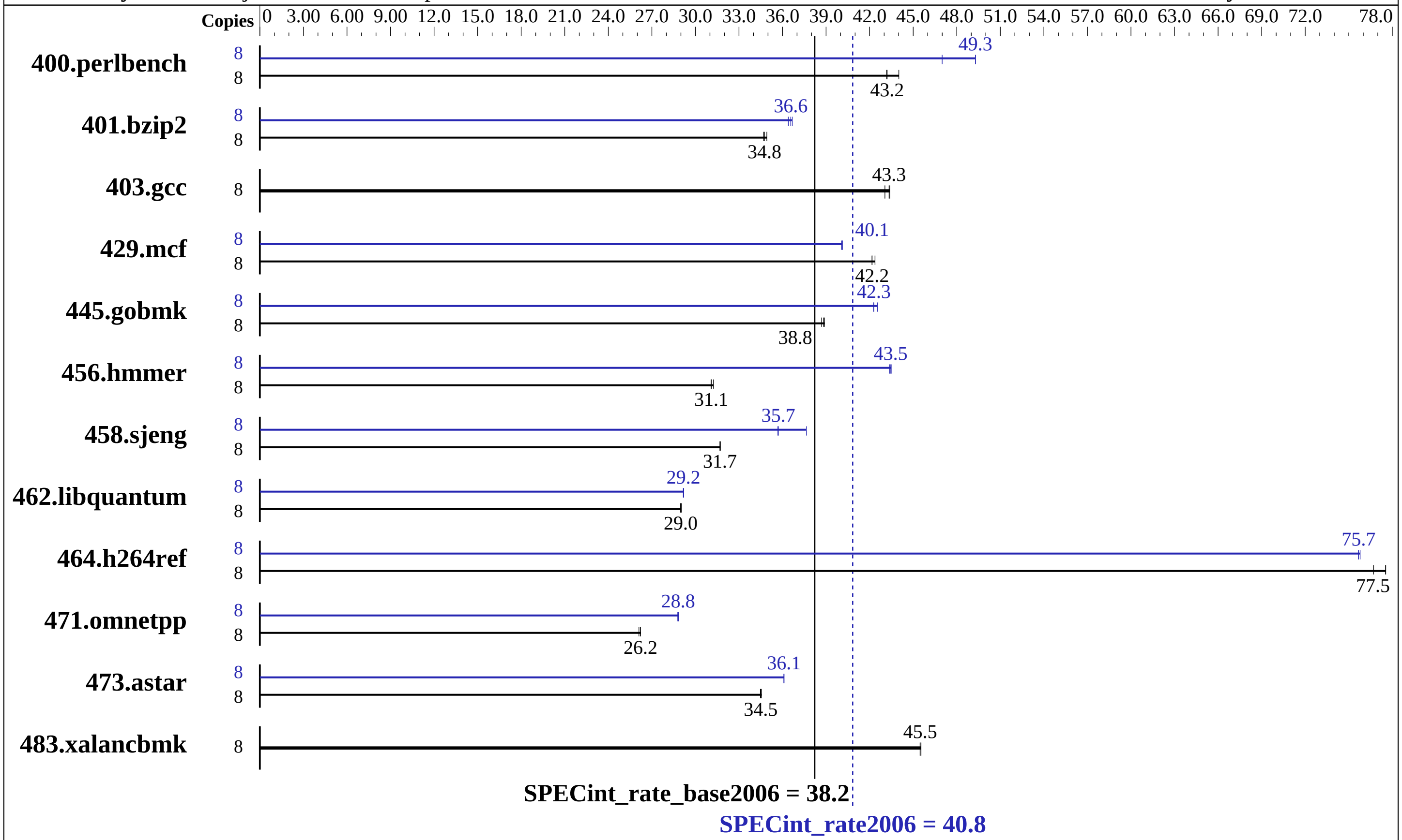
## Fujitsu Siemens Computers

PRIMERGY TX600 S3, Intel Xeon processor 7130M, 3.20 GHz

SPECint®_rate2006 = 40.8

SPECint_rate_base2006 = 38.2

| | | | |
|---|---|---|---|
| **CPU2006 license:** | 22 | **Test date:** | May-2007 |
| **Test sponsor:** | Fujitsu Siemens Computers | **Hardware Availability:** | Aug-2006 |
| **Tested by:** | Fujitsu Siemens Computers | **Software Availability:** | Mar-2007 |




## Hardware

| | |
|---|---|
| CPU Name: | Intel Xeon 7130M |
| CPU Characteristics: | 800 MHz system bus |
| CPU MHz: | 3200 |
| FPU: | Integrated |
| CPU(s) enabled: | 4 cores, 2 chips, 2 cores/chip, 2 threads/core |
| CPU(s) orderable: | 1,2,4 chips |
| Primary Cache: | 12 K micro-ops I + 16 KB D on chip per core |
| Secondary Cache: | 1 MB I+D on chip per core |
| L3 Cache: | 8 MB I+D on chip per chip |
| Other Cache: | None |
| Memory: | 32 GB (16x2 GB DDR2 PC2-3200R, 2 rank, CAS 3-3-3, with ECC) |
| Disk Subsystem: | Seagate ST973401SS (SAS 73GB 10 krpm) |
| 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 |

## Results Table

| Benchmark | Base | | | | | | | Peak | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 400.perlbench | 8 | 1810 | 43.2 | **1809** | **43.2** | 1776 | 44.0 | 8 | 1586 | 49.3 | 1663 | 47.0 | **1586** | **49.3** |
| 401.bzip2 | 8 | **2221** | **34.8** | 2224 | 34.7 | 2211 | 34.9 | 8 | 2121 | 36.4 | 2105 | 36.7 | **2111** | **36.6** |
| 403.gcc | 8 | **1486** | **43.3** | 1496 | 43.1 | 1484 | 43.4 | 8 | **1486** | **43.3** | 1496 | 43.1 | 1484 | 43.4 |
| 429.mcf | 8 | 1722 | 42.4 | **1730** | **42.2** | 1730 | 42.2 | 8 | 1819 | 40.1 | 1821 | 40.1 | **1819** | **40.1** |
| 445.gobmk | 8 | 2158 | 38.9 | 2169 | 38.7 | **2161** | **38.8** | 8 | 1973 | 42.5 | **1984** | **42.3** | 1986 | 42.3 |
| 456.hmmer | 8 | **2400** | **31.1** | 2389 | 31.2 | 2401 | 31.1 | 8 | 1721 | 43.4 | 1716 | 43.5 | **1718** | **43.5** |
| 458.sjeng | 8 | **3054** | **31.7** | 3055 | 31.7 | 3052 | 31.7 | 8 | 2713 | 35.7 | **2710** | **35.7** | 2572 | 37.6 |
| 462.libquantum | 8 | 5720 | 29.0 | 5710 | 29.0 | **5718** | **29.0** | 8 | **5682** | **29.2** | 5684 | 29.2 | 5678 | 29.2 |
| 464.h264ref | 8 | 2283 | 77.5 | 2308 | 76.7 | **2283** | **77.5** | 8 | 2340 | 75.7 | 2336 | 75.8 | **2339** | **75.7** |
| 471.omnetpp | 8 | **1907** | **26.2** | 1907 | 26.2 | 1915 | 26.1 | 8 | 1737 | 28.8 | **1735** | **28.8** | 1734 | 28.8 |
| 473.astar | 8 | 1629 | 34.5 | **1628** | **34.5** | 1625 | 34.6 | 8 | **1556** | **36.1** | 1555 | 36.1 | 1556 | 36.1 |
| 483.xalancbmk | 8 | 1212 | 45.5 | 1214 | 45.5 | **1214** | **45.5** | 8 | 1212 | 45.5 | 1214 | 45.5 | **1214** | **45.5** |

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.

BIOS configuration:
Hardware Prefetch = Enable

This result was measured on the PRIMERGY RX600 S3. The PRIMERGY RX600 S3 and
the PRIMERGY TX600 S3 are electronically equivalent.

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

## Base Compiler Invocation

C benchmarks:
    icc

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

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.09.xml

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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