



SPEC® CINT2006 Result

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Fujitsu Siemens Computers

SPECint®_rate2006 = 64.2

CELSIUS M460, Intel Core 2 Quad Q9450

SPECint_rate_base2006 = 58.9

CPU2006 license: 22

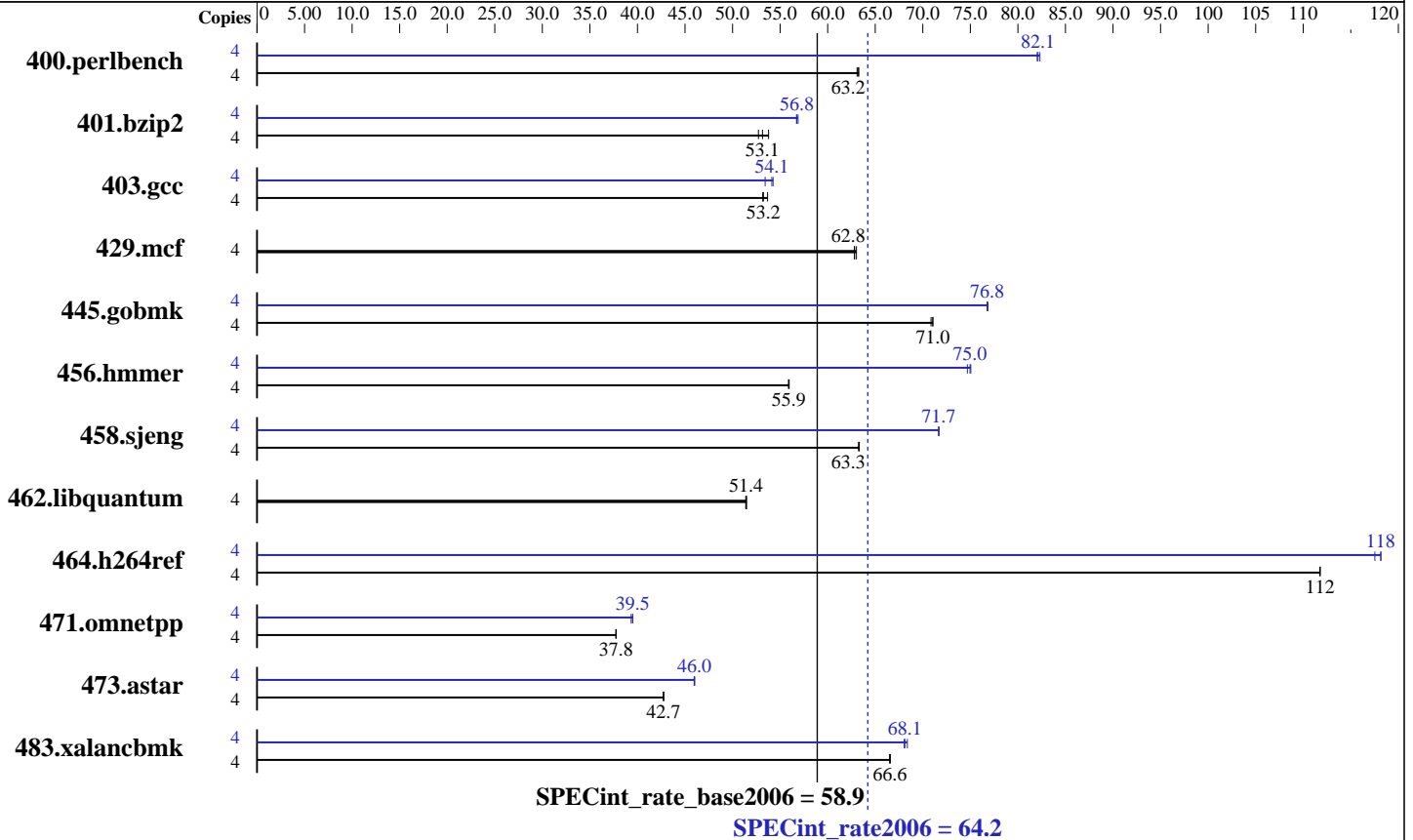
Test sponsor: Fujitsu Siemens Computers

Tested by: Fujitsu Siemens Computers

Test date: Mar-2008

Hardware Availability: Mar-2008

Software Availability: Nov-2007



Hardware

CPU Name: Intel Core 2 Quad Q9450
 CPU Characteristics:
 CPU MHz: 2667
 FPU: Integrated
 CPU(s) enabled: 4 cores, 1 chip, 4 cores/chip
 CPU(s) orderable: 1 chip
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 12 MB I+D on chip per chip, 6 MB shared / 2 cores
 L3 Cache: None
 Other Cache: None
 Memory: 4 GB (4x1 GB PC2-6400 CL6 SDRAM)
 Disk Subsystem: 1 x 400 GB SATA 7200 RPM
 Other Hardware: None

Software

Operating System: Windows Vista64 Ultimate
 Compiler: Intel C++ Compiler for applications running on IA-32, Version 10.1, Build 20070913
 Intel C++ Compiler for applications running on Intel 64, Version 10.1, Build 20070913
 Microsoft Visual Studio 2005 with SP1 (for libraries)
 Auto Parallel: No
 File System: NTFS
 System State: Default
 Base Pointers: 32-bit
 Peak Pointers: 32/64-bit
 Other Software: SmartHeap Library Version 8.1 from <http://www.microquill.com/>



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Results Table

| Benchmark | Base | | | | | | Peak | | | | | | | |
|----------------|--------|-------------|-------------|------------|-------------|------------|-------------|--------|-------------|-------------|------------|-------------|------------|-------------|
| | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 400.perlbench | 4 | 618 | 63.3 | 619 | 63.1 | 618 | 63.2 | 4 | 475 | 82.3 | 476 | 82.0 | 476 | 82.1 |
| 401.bzip2 | 4 | 732 | 52.7 | 726 | 53.1 | 718 | 53.8 | 4 | 681 | 56.7 | 679 | 56.9 | 680 | 56.8 |
| 403.gcc | 4 | 606 | 53.2 | 600 | 53.7 | 605 | 53.2 | 4 | 595 | 54.1 | 603 | 53.4 | 593 | 54.3 |
| 429.mcf | 4 | 581 | 62.8 | 579 | 63.0 | 581 | 62.8 | 4 | 581 | 62.8 | 579 | 63.0 | 581 | 62.8 |
| 445.gobmk | 4 | 592 | 70.9 | 590 | 71.1 | 591 | 71.0 | 4 | 547 | 76.8 | 546 | 76.8 | 547 | 76.8 |
| 456.hmmmer | 4 | 667 | 55.9 | 668 | 55.9 | 667 | 55.9 | 4 | 497 | 75.0 | 500 | 74.7 | 498 | 75.0 |
| 458.sjeng | 4 | 765 | 63.3 | 765 | 63.2 | 764 | 63.3 | 4 | 675 | 71.7 | 675 | 71.7 | 675 | 71.7 |
| 462.libquantum | 4 | 1611 | 51.4 | 1613 | 51.4 | 1610 | 51.5 | 4 | 1611 | 51.4 | 1613 | 51.4 | 1610 | 51.5 |
| 464.h264ref | 4 | 792 | 112 | 792 | 112 | 792 | 112 | 4 | 749 | 118 | 749 | 118 | 753 | 118 |
| 471.omnetpp | 4 | 662 | 37.8 | 662 | 37.8 | 662 | 37.7 | 4 | 633 | 39.5 | 633 | 39.5 | 636 | 39.3 |
| 473.astar | 4 | 657 | 42.8 | 657 | 42.7 | 657 | 42.7 | 4 | 610 | 46.0 | 611 | 46.0 | 610 | 46.0 |
| 483.xalancbmk | 4 | 415 | 66.5 | 415 | 66.6 | 415 | 66.6 | 4 | 404 | 68.4 | 405 | 68.1 | 406 | 68.0 |

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

Platform Notes

BIOS default settings have been used.

General Notes

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

For information about Fujitsu Siemens Computers please see:
<http://www.fujitsu-siemens.com/>

Base Compiler Invocation

C benchmarks:
icl -Qvc8 -Qc99

C++ benchmarks:
icl -Qvc8



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Base Portability Flags

403.gcc: -DSPEC_CPU_WIN32
464.h264ref: -DSPEC_CPU_NO_INTTYPES -DWIN32
483.xalancbmk: -Qoption, cpp, --no_wchar_t_keyword

Base Optimization Flags

C benchmarks:

-fast -Qvec-guard-write -F512000000

C++ benchmarks:

-fast -Qcxx_features -F512000000 shlW32M.lib -link -FORCE:MULTIPLE

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):

icl -Qvc8 -Qc99

401.bzip2: C:\\DevelTools\\Intel\\Compiler\\C++\\10.1.011\\EM64T\\Bin\\icl.exe
-IC:\\DevelTools\\Intel\\Compiler\\C++\\10.1.011\\EM64T\\Include
-link -LIBPATH:C:\\DevelTools\\Intel\\Compiler\\C++\\10.1.011\\EM64T\\Lib
-link -LIBPATH:"C:\\Program Files\\Microsoft Visual Studio 8\\vc\\lib"
-link -LIBPATH:"C:\\Program Files\\Microsoft Visual Studio 8\\vc\\lib\\amd64"

456.hmmer: C:\\DevelTools\\Intel\\Compiler\\C++\\10.1.011\\EM64T\\Bin\\icl.exe
-IC:\\DevelTools\\Intel\\Compiler\\C++\\10.1.011\\EM64T\\Include
-link -LIBPATH:C:\\DevelTools\\Intel\\Compiler\\C++\\10.1.011\\EM64T\\Lib
-link -LIBPATH:"C:\\Program Files\\Microsoft Visual Studio 8\\vc\\lib"
-link -LIBPATH:"C:\\Program Files\\Microsoft Visual Studio 8\\vc\\lib\\amd64"

C++ benchmarks:

icl -Qvc8

Peak Portability Flags

401.bzip2: -DSPEC_CPU_P64

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Peak Portability Flags (Continued)

403.gcc: -DSPEC_CPU_WIN32
456.hmmr: -DSPEC_CPU_P64
464.h264ref: -DSPEC_CPU_NO_INTTYPES -DWIN32
483.xalancbmk: -Qoption,cpp,--no_wchar_t_keyword

Peak Optimization Flags

C benchmarks:

400.perlbench: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qansi-alias
-Qprefetch -F512000000 shlw32M.lib -link -FORCE:MULTIPLE

401.bzip2: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qprefetch
-F512000000

403.gcc: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -F512000000

429.mcf: basepeak = yes

445.gobmk: -Qprof_gen(pass 1) -Qprof_use(pass 2) -QxT -O2 -Qipo
-Qprec-div- -Qansi-alias -F512000000

456.hmmr: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qunroll2
-Qansi-alias -Qopt-multi-version-aggressive -F512000000

458.sjeng: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qunroll4
-F512000000

462.libquantum: basepeak = yes

464.h264ref: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qunroll2
-Qansi-alias -F512000000

C++ benchmarks:

471.omnetpp: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qansi-alias
-Qopt-ra-region-strategy=block -Qcxx_features -F512000000
shlw32M.lib -link -FORCE:MULTIPLE

473.astar: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qansi-alias
-Qopt-ra-region-strategy=routine -Qcxx_features -F512000000
shlw32M.lib -link -FORCE:MULTIPLE

483.xalancbmk: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qansi-alias
-Qcxx_features -F512000000 shlw32M.lib
-link -FORCE:MULTIPLE



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Peak Other Flags

Same as Base Other Flags

The flags file that was used to format this result can be browsed at

http://www.spec.org/cpu2006/flags/CPU2006_flags.20090713.02.html

You can also download the XML flags source by saving the following link:

http://www.spec.org/cpu2006/flags/CPU2006_flags.20090713.02.xml

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For other inquiries, please contact webmaster@spec.org.

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