SPEC® CINT2006 Result

Fujitsu Siemens Computers

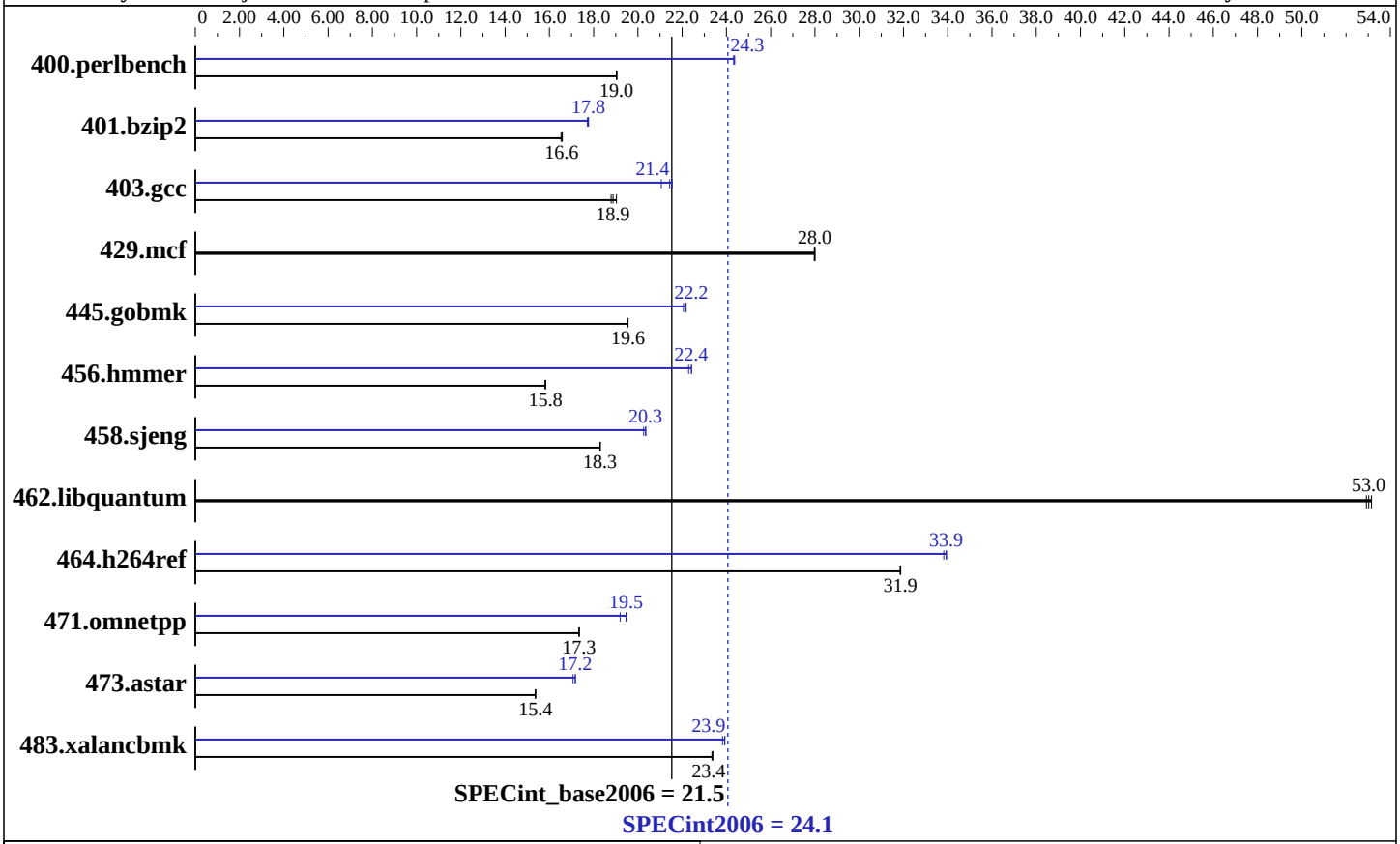
CELSIUS M460, Intel Core 2 Extreme QX9650

SPECint®2006 = 24.1

SPECint_base2006 = 21.5

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

Test date: Feb-2008
Hardware Availability: Mar-2008
Software Availability: Nov-2007



Hardware

CPU Name:	Intel Core 2 Extreme QX9650
CPU Characteristics:	
CPU MHz:	3000
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 Vista Ultimate, 64 bit Version
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:	Yes
File System:	NTFS
System State:	Default
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	MicroQuill SmartHeap Library 8.1

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Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	513	19.0	**513**	**19.0**	513	19.1	402	24.3	**401**	**24.3**	401	24.4
401.bzip2	584	16.5	**583**	**16.6**	582	16.6	**543**	**17.8**	543	17.8	545	17.7
403.gcc	423	19.0	428	18.8	**426**	**18.9**	374	21.5	**376**	**21.4**	382	21.1
429.mcf	326	28.0	**326**	**28.0**	326	28.0	326	28.0	**326**	**28.0**	326	28.0
445.gobmk	536	19.6	**536**	**19.6**	537	19.5	473	22.2	**473**	**22.2**	476	22.1
456.hmmer	590	15.8	590	15.8	**590**	**15.8**	**416**	**22.4**	416	22.4	419	22.3
458.sjeng	661	18.3	**661**	**18.3**	661	18.3	594	20.4	**595**	**20.3**	597	20.3
462.libquantum	**391**	**53.0**	392	52.9	390	53.2	**391**	**53.0**	392	52.9	390	53.2
464.h264ref	695	31.8	694	31.9	**694**	**31.9**	**652**	**33.9**	652	33.9	654	33.8
471.omnetpp	**360**	**17.3**	361	17.3	360	17.4	**321**	**19.5**	321	19.5	326	19.2
473.astar	457	15.4	457	15.4	**457**	**15.4**	409	17.2	**409**	**17.2**	411	17.1
483.xalancbmk	295	23.4	**295**	**23.4**	296	23.3	288	23.9	**288**	**23.9**	290	23.8

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.hmmer 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
```

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 -Qparallel -Qvec-guard-write -Qpar-runtime-control -F512000000 libguide40.lib`

C++ benchmarks:
`-fast -Qcxx-features -F512000000 libguide40.lib 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
403.gcc: -DSPEC_CPU_WIN32
456.hmmer: -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 -Qparallel -Qpar-runtime-control -Qansi-alias -Qprefetch -F512000000 libguide40.lib shlW32M.lib -link -FORCE:MULTIPLE

401.bzip2: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qprefetch -F512000000 libguide40.lib

403.gcc: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -F512000000 libguide40.lib

429.mcf: basepeak = yes

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

456.hmmer: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qunroll2 -Qansi-alias -Qopt-multi-version-aggressive -F512000000 libguide40.lib

458.sjeng: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qunroll4 -F512000000 libguide40.lib

462.libquantum: basepeak = yes

464.h264ref: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qunroll2 -Qansi-alias -F512000000 libguide40.lib

C++ benchmarks:

471.omnetpp: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qcxx-features -Qansi-alias -Qopt-ra-region-strategy=block -F512000000 libguide40.lib shlW32M.lib -link -FORCE:MULTIPLE

473.astar: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qcxx-features -Qansi-alias -Qopt-ra-region-strategy=routine -F512000000 libguide40.lib shlW32M.lib -link -FORCE:MULTIPLE

Continued on next page

Peak Optimization Flags (Continued)

483.xalancbmk: `-Qprof_gen`(pass 1) `-Qprof_use`(pass 2) `-fast -Qcxx-features -Qansi-alias -F512000000 libguide40.lib shlW32M.lib -link -FORCE:MULTIPLE`

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`

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

Tested with SPEC CPU2006 v1.0.
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