



SPEC® CINT2006 Result

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Intel Corporation

SPECint®_rate2006 = 687

Intel QSSC-S4R (Intel Xeon X7550, 2.00 GHz)

SPECint_rate_base2006 = 643

CPU2006 license: 13

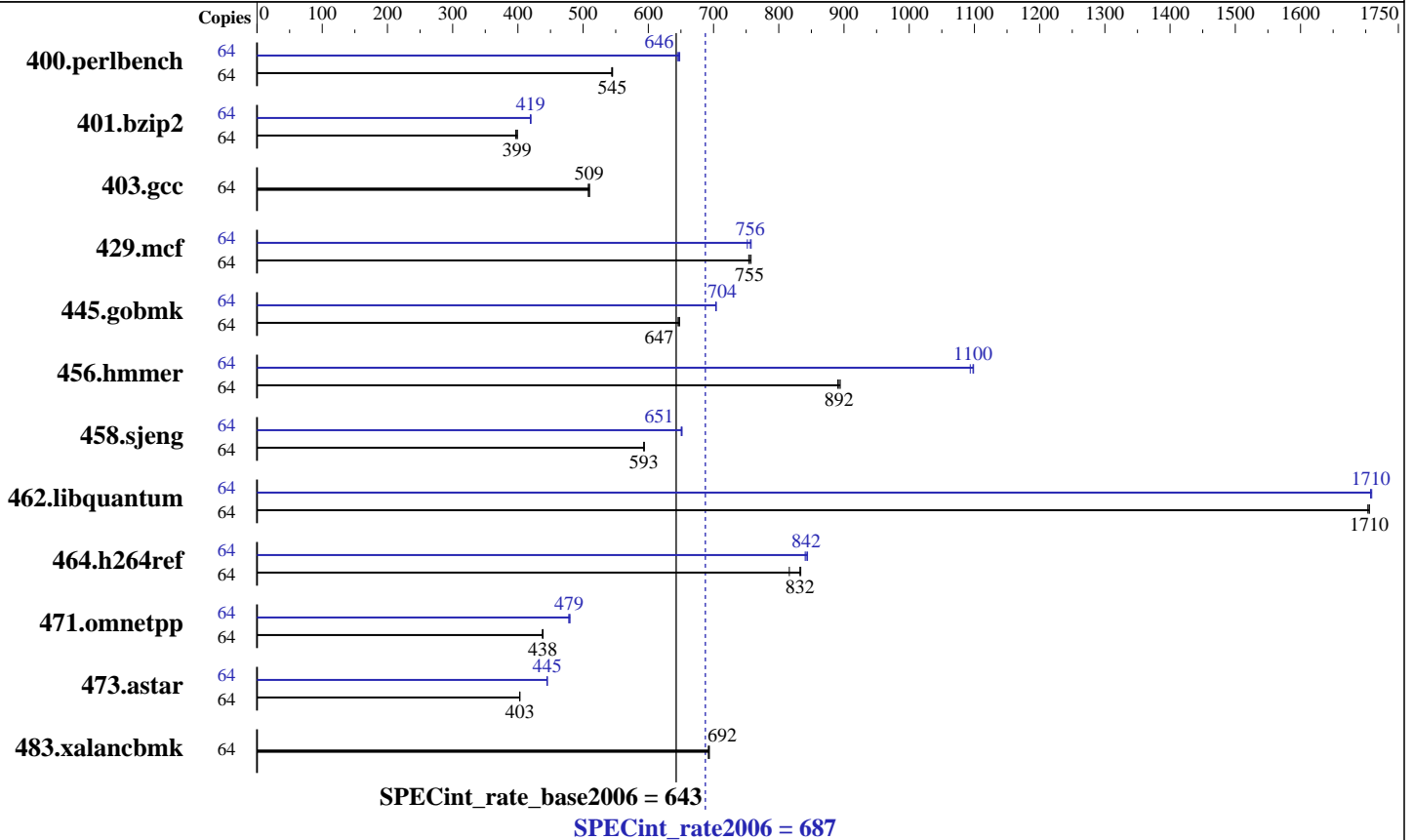
Test sponsor: Intel Corporation

Tested by: Intel Corporation

Test date: Mar-2010

Hardware Availability: Mar-2010

Software Availability: Jan-2010



Hardware

CPU Name: Intel Xeon X7550
 CPU Characteristics: Intel Turbo Boost Technology up to 2.40 GHz
 CPU MHz: 2000
 FPU: Integrated
 CPU(s) enabled: 32 cores, 4 chips, 8 cores/chip, 2 threads/core
 CPU(s) orderable: 1,2,4 chips
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 256 KB I+D on chip per core
 L3 Cache: 18 MB I+D on chip per chip
 Other Cache: None
 Memory: 256 GB (64x 4GB Quad-Rank DDR3-1066, ECC, CL9)
 Disk Subsystem: 146 GB SAS, 10000RPM
 Other Hardware: None

Software

Operating System: SuSe Linux Enterprise Server 11
 Kernel 2.6.27.19-5 on x86_64
 Compiler: Intel C++ Professional Compiler for IA32 and Intel 64, Version 11.1
 Build 20091130 Package ID: l_cproc_p_11.1.064
 Auto Parallel: No
 File System: ext3
 System State: Run level 3 (multi-user)
 Base Pointers: 32-bit
 Peak Pointers: 32/64-bit
 Other Software: Microquill SmartHeap V8.1



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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	64	<u>1148</u>	<u>545</u>	1150	544	1147	545	64	<u>967</u>	<u>646</u>	965	648	970	645
401.bzip2	64	1557	397	1547	399	<u>1549</u>	<u>399</u>	64	1474	419	<u>1472</u>	<u>419</u>	1470	420
403.gcc	64	1014	508	1011	510	<u>1011</u>	<u>509</u>	64	1014	508	1011	510	<u>1011</u>	<u>509</u>
429.mcf	64	771	758	774	754	<u>773</u>	<u>755</u>	64	776	752	770	758	<u>772</u>	<u>756</u>
445.gobmk	64	<u>1038</u>	<u>647</u>	1040	646	1036	648	64	<u>954</u>	<u>704</u>	954	703	953	704
456.hammer	64	668	894	<u>669</u>	<u>892</u>	671	891	64	546	1090	543	1100	<u>544</u>	<u>1100</u>
458.sjeng	64	1306	593	<u>1305</u>	<u>593</u>	1304	594	64	<u>1190</u>	<u>651</u>	1190	651	1188	652
462.libquantum	64	778	1710	779	1700	<u>778</u>	<u>1710</u>	64	776	1710	<u>776</u>	<u>1710</u>	777	1710
464.h264ref	64	1735	816	1699	834	<u>1702</u>	<u>832</u>	64	1685	840	<u>1682</u>	<u>842</u>	1678	844
471.omnetpp	64	<u>913</u>	<u>438</u>	912	439	914	438	64	<u>836</u>	<u>479</u>	837	478	833	480
473.astar	64	1116	403	1115	403	<u>1115</u>	<u>403</u>	64	1010	445	1010	445	<u>1010</u>	<u>445</u>
483.xalanbmk	64	638	692	<u>638</u>	<u>692</u>	637	694	64	638	692	<u>638</u>	<u>692</u>	637	694

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

Submit Notes

The config file option 'submit' was used.
numactl was used to bind copies to the cores

Base Compiler Invocation

C benchmarks:
icc -m32
C++ benchmarks:
icpc -m32

Base Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX
483.xalanbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

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Base Optimization Flags (Continued)

C++ benchmarks:

```
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/home/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-32bit -lsmartheap
```

Base Other Flags

C benchmarks:

```
403.gcc: -Dalloca=_alloca
```

Peak Compiler Invocation

C benchmarks (except as noted below):

```
icc -m32
```

```
401.bzip2: icc -m64
```

```
456.hmmer: icc -m64
```

```
458.sjeng: icc -m64
```

```
462.libquantum: icc -m64
```

C++ benchmarks (except as noted below):

```
icpc -m32
```

```
473.astar: icpc -m64
```

Peak Portability Flags

```
400.perlbench: -DSPEC_CPU_LINUX_IA32
```

```
401.bzip2: -DSPEC_CPU_LP64
```

```
456.hmmer: -DSPEC_CPU_LP64
```

```
458.sjeng: -DSPEC_CPU_LP64
```

```
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
```

```
473.astar: -DSPEC_CPU_LP64
```

```
483.xalancbmk: -DSPEC_CPU_LINUX
```

Peak Optimization Flags

C benchmarks:

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Peak Optimization Flags (Continued)

400.perlbench: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -static(pass 2)
-prof-use(pass 2) -ansi-alias

401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -static(pass 2)
-prof-use(pass 2) -opt-prefetch -ansi-alias -auto-ilp32

403.gcc: basepeak = yes

429.mcf: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2) -O2
-ipo -no-prec-div -ansi-alias

456.hmmcr: -xSSE4.2 -ipo -O3 -no-prec-div -static -unroll2
-ansi-alias -auto-ilp32

458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -static(pass 2)
-prof-use(pass 2) -unroll4 -auto-ilp32

462.libquantum: -xSSE4.2 -ipo -O3 -no-prec-div -static -auto-ilp32
-opt-prefetch

464.h264ref: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -static(pass 2)
-prof-use(pass 2) -unroll2 -ansi-alias

C++ benchmarks:

471.omnetpp: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs
-L/home/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-32bit -lsmartheap

473.astar: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-ansi-alias -opt-ra-region-strategy=routine -Wl,-z,muldefs
-L/home/cmplr/usr3/alrahate/cpu2006.1.1.ic11.1/libic11.1-64bit -lsmartheap64

483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

Continued on next page



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Peak Other Flags (Continued)

403.gcc: -Dalloca=_alloca

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revG.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic11.1-linux64-revG.xml>

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

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