SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

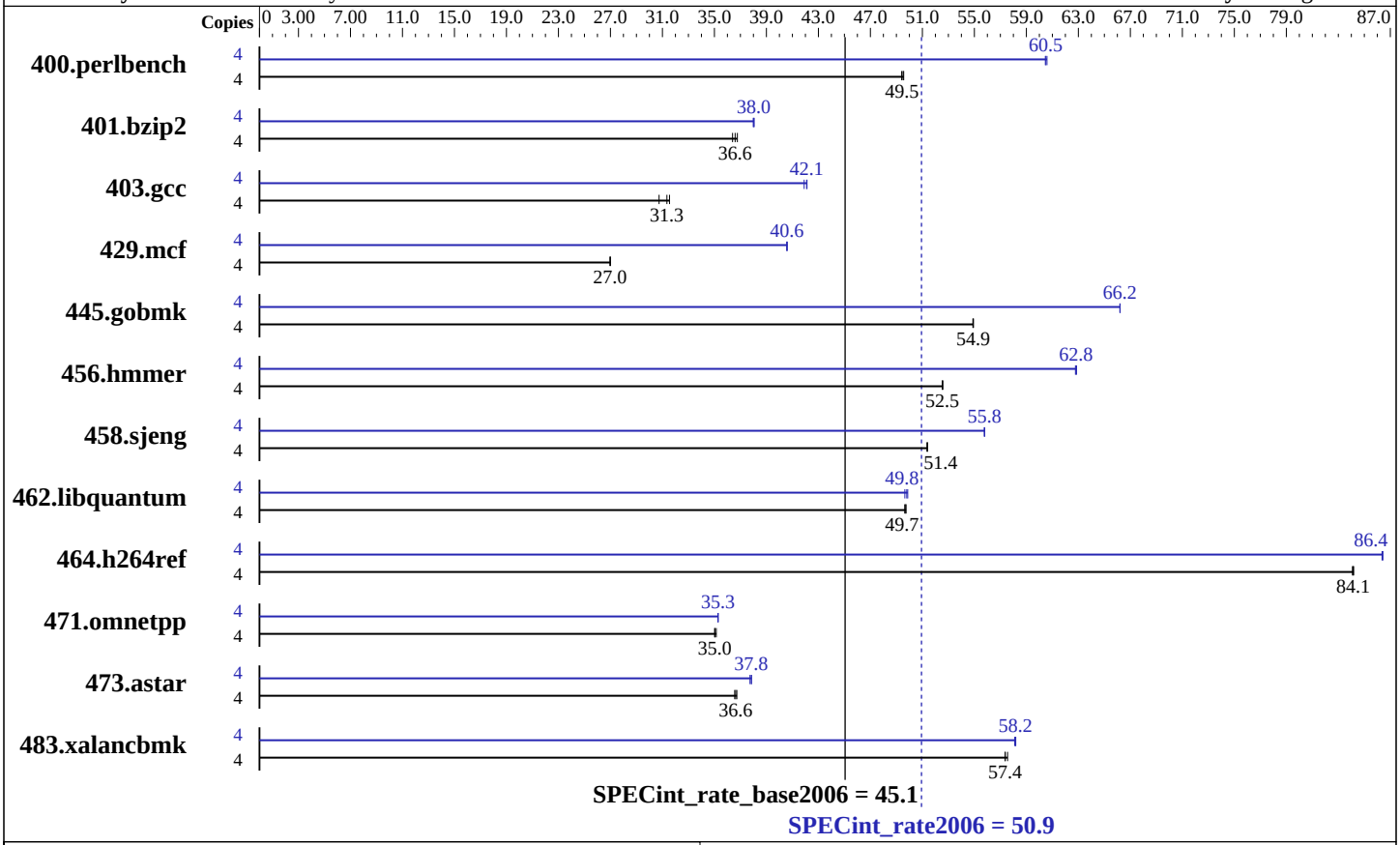
Sun Microsystems
Sun Fire X4100 M2

SPECint®_rate2006 = 50.9

SPECint_rate_base2006 = 45.1

CPU2006 license: 6
Test sponsor: Sun Microsystems
Tested by: Sun Microsystems

Test date: Apr-2007
Hardware Availability: Oct-2006
Software Availability: Aug-2006



Hardware

CPU Name:	AMD Opteron 2220
CPU Characteristics:	
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1,2 chips
Primary Cache:	64 KB I + 64 KB D on chip per core
Secondary Cache:	1 MB I+D on chip per core
L3 Cache:	None
Other Cache:	None
Memory:	16 GB (8x2GB, DDR2-667 CL5 ECC Reg Dual Rank)
Disk Subsystem:	SAS, 72 GB,10K RPM
Other Hardware:	None

Software

Operating System:	RedHat Enterprise Linux AS release 4 Update 5
Compiler:	QLogic PathScale Compiler Suite, Release 2.5
Auto Parallel:	No
File System:	ext3
System State:	Multi-user, run level 3
Base Pointers:	32/64-bit
Peak Pointers:	32/64-bit
Other Software:	MicroQuill's SmartHeap 8.0 32-bit Library for Linux

SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Sun Microsystems
Sun Fire X4100 M2

SPECint_rate2006 = 50.9

SPECint_rate_base2006 = 45.1

CPU2006 license: 6
Test sponsor: Sun Microsystems
Tested by: Sun Microsystems

Test date: Apr-2007
Hardware Availability: Oct-2006
Software Availability: Aug-2006

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	4	791	49.4	789	49.6	**789**	**49.5**	4	645	60.6	**646**	**60.5**	646	60.5
401.bzip2	4	1050	36.8	1061	36.4	**1055**	**36.6**	4	**1015**	**38.0**	1016	38.0	1014	38.1
403.gcc	4	1047	30.7	1021	31.5	**1027**	**31.3**	4	768	41.9	764	42.1	**765**	**42.1**
429.mcf	4	1351	27.0	**1352**	**27.0**	1353	27.0	4	**899**	**40.6**	899	40.6	899	40.6
445.gobmk	4	764	54.9	765	54.9	**764**	**54.9**	4	634	66.2	634	66.2	**634**	**66.2**
456.hmmer	4	710	52.6	710	52.5	**710**	**52.5**	4	595	62.8	594	62.9	**594**	**62.8**
458.sjeng	4	**942**	**51.4**	942	51.4	942	51.4	4	868	55.8	868	55.8	**868**	**55.8**
462.libquantum	4	1670	49.6	**1667**	**49.7**	1666	49.7	4	1669	49.6	**1664**	**49.8**	1662	49.9
464.h264ref	4	1052	84.2	**1052**	**84.1**	1053	84.1	4	1025	86.4	**1024**	**86.4**	1024	86.4
471.omnetpp	4	711	35.1	714	35.0	**714**	**35.0**	4	708	35.3	709	35.3	**709**	**35.3**
473.astar	4	768	36.6	**766**	**36.6**	765	36.7	4	744	37.7	**742**	**37.8**	742	37.9
483.xalancbmk	4	480	57.6	481	57.4	**481**	**57.4**	4	**474**	**58.2**	475	58.1	474	58.2

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

General Notes

```
taskset utility used to bind CPU(s) to processes
Default BIOS settings was used.

This result was measured on the Sun Fire X4100 M2. In addition,
Sun has submitted the same result for the Sun Fire X4200 M2, which is
electronically equivalent to the Sun Fire X4100 M2.
```

Base Compiler Invocation

C benchmarks:
`pathcc`

C++ benchmarks:
`pathCC`

Base Portability Flags

400.perlbench: `-DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64`
401.bzip2: `-DSPEC_CPU_LP64`
403.gcc: `-DSPEC_CPU_LP64`
429.mcf: `-DSPEC_CPU_LP64`
445.gobmk: `-DSPEC_CPU_LP64`
456.hmmer: `-DSPEC_CPU_LP64`

Continued on next page

Base Portability Flags (Continued)

458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
464.h264ref: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
-Ofast

C++ benchmarks:
-Ofast -m32 -L/data1/SmartHeap_8smp/lib -lsmartheap_smp

Base Other Flags

C benchmarks:
-IPA:max_jobs=4

C++ benchmarks:
-IPA:max_jobs=4

Peak Compiler Invocation

C benchmarks:
pathcc

C++ benchmarks:
pathCC

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
464.h264ref: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: `-fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -Ofast`

401.bzip2: `-O3 -LNO:ou_prod_max=10 -OPT:Ofast -OPT:alias=disjoint`

403.gcc: `-fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -m32 -O3 -OPT:Ofast`

429.mcf: `-m32 -O2 -ipa -L/data1/SmartHeap_8smp/lib -lsmartheap_smp`

445.gobmk: `-fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -O3 -OPT:alias=disjoint -LNO:simd=0 -LNO:minvariant=off -WOPT:retype_expr=on`

456.hmmer: `-O2 -OPT:alias=disjoint -WOPT:aggstr=0 -CG:cflow=0`

458.sjeng: `-fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -O3 -IPA:plimit=50000 -IPA:pu_reorder=2`

462.libquantum: `-O3 -ipa -CG:local_fwd_sched=on -IPA:space=1000`

464.h264ref: `-fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -O3 -IPA:plimit=20000 -OPT:alias=disjoint -LNO:prefetch=0`

C++ benchmarks:

471.omnetpp: `-Ofast -IPA:pu_reorder=2 -CG:gcm=off -m32 -L/data1/SmartHeap_8smp/lib -lsmartheap_smp`

473.astar: `-fb_create fbdata(pass 1) -fb_opt fbdata(pass 2) -Ofast -m32 -L/data1/SmartHeap_8smp/lib -lsmartheap_smp`

483.xalancbmk: `-Ofast -m32 -OPT:unroll_times_max=8 -L/data1/SmartHeap_8smp/lib -lsmartheap_smp`

Peak Other Flags

C benchmarks:
`-IPA:max_jobs=4`

C++ benchmarks:
`-IPA:max_jobs=4`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.27.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.27.xml`

SPEC and SPECint are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2006 v1.0.
Report generated on Tue Jul 22 11:31:27 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 1 May 2007.