SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

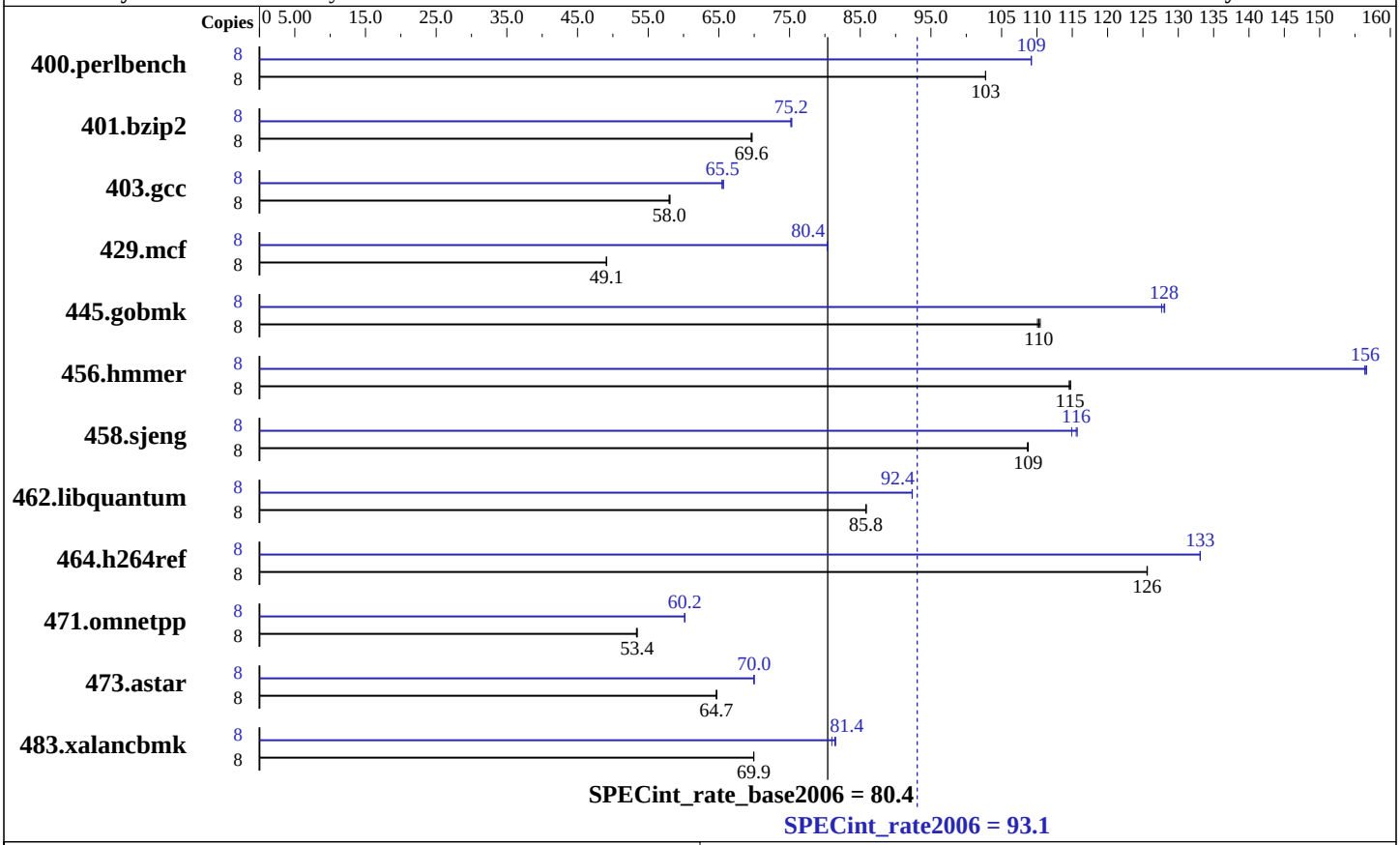
Sun Microsystems
Sun Blade X8420

SPECint®_rate2006 = 93.1

SPECint_rate_base2006 = 80.4

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

Test date: Jan-2007
Hardware Availability: Feb-2007
Software Availability: Jul-2006



Hardware

CPU Name:	AMD Opteron 8220
CPU Characteristics:	
CPU MHz:	2800
FPU:	Integrated
CPU(s) enabled:	8 cores, 4 chips, 2 cores/chip
CPU(s) orderable:	4 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:	64 GB (16x4GB, DDR2-667 CL5 ECC REG Quad Rank)
Disk Subsystem:	SAS,72 GB,10K RPM
Other Hardware:	None

Software

Operating System:	Solaris 10 6/06
Compiler:	Sun Studio 11 with Patches
Auto Parallel:	No
File System:	ufs
System State:	Default
Base Pointers:	64-bit
Peak Pointers:	32/64-bit
Other Software:	None

SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Sun Microsystems
Sun Blade X8420

SPECint_rate2006 = 93.1

SPECint_rate_base2006 = 80.4

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

Test date: Jan-2007
Hardware Availability: Feb-2007
Software Availability: Jul-2006

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	8	761	103	761	103	**761**	**103**	8	716	109	**716**	**109**	716	109
401.bzip2	8	1108	69.7	**1109**	**69.6**	1109	69.6	8	1025	75.3	1027	75.2	**1026**	**75.2**
403.gcc	8	1111	58.0	1109	58.1	**1111**	**58.0**	8	981	65.7	**983**	**65.5**	984	65.4
429.mcf	8	1486	49.1	1486	49.1	**1486**	**49.1**	8	**908**	**80.4**	908	80.4	907	80.4
445.gobmk	8	762	110	**761**	**110**	760	110	8	655	128	**656**	**128**	657	128
456.hmmer	8	**651**	**115**	652	115	650	115	8	477	156	**477**	**156**	476	157
458.sjeng	8	891	109	**890**	**109**	890	109	8	837	116	**838**	**116**	842	115
462.libquantum	8	1932	85.8	**1931**	**85.8**	1931	85.9	8	1795	92.3	**1795**	**92.4**	1795	92.4
464.h264ref	8	1410	126	**1410**	**126**	1409	126	8	1330	133	**1330**	**133**	1330	133
471.omnetpp	8	936	53.4	937	53.3	**936**	**53.4**	8	831	60.2	**831**	**60.2**	831	60.2
473.astar	8	868	64.7	**868**	**64.7**	869	64.6	8	803	70.0	**802**	**70.0**	802	70.0
483.xalancbmk	8	789	69.9	789	69.9	**789**	**69.9**	8	677	81.5	682	81.0	**678**	**81.4**

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

Operating System Notes

```
Processes were bound to cores using "submit" and "pbind".

ulimit -s 131072  (shell): increases stack

The following patches were applied to Sun Studio 11 compiler:
120759-07 : x86/x64
121016-03 : x86 C
121020-03 : x86 F90
121018-03 : x86 C++
```

Platform Notes

```
Default BIOS settings was used.
```

Base Compiler Invocation

C benchmarks:
cc

C++ benchmarks:
CC

Base Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_SOLARIS_X64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64 -DSPEC_CPU_SOLARIS
429.mcf: -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_SOLARIS
464.h264ref: -DSPEC_CPU_LP64
471.omnetpp: -DSPEC_CPU_LP64
473.astar: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_SOLARIS

Base Optimization Flags

C benchmarks:
-fast -xipo=2 -xarch=amd64a

C++ benchmarks:
-fast -xipo=2 -xarch=amd64a -library=stlport4

Base Other Flags

C benchmarks:
-V

C++ benchmarks:
-verbose=version

Peak Compiler Invocation

C benchmarks:
cc

C++ benchmarks:
CC

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_SOLARIS_X64
403.gcc: -DSPEC_CPU_SOLARIS

Continued on next page

Peak Portability Flags (Continued)

462.libquantum: -DSPEC_CPU_SOLARIS
483.xalancbmk: -DSPEC_CPU_SOLARIS

Peak Optimization Flags

C benchmarks:

400.perlbench: -fast -xarch=amd64a -xvector=simd -lbsdmalloc
-Wu,-fsimple=3

401.bzip2: ONESTEP -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xpagesize=2m
-xipo=2 -xalias_level=strong -xarch=sse2a
-M /usr/lib/ld/map.bssalign -Wu,-fsimple=3

403.gcc: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xbuiltin=%none -xpagesize=2m -lmvec

429.mcf: -fast -xpagesize=2m -xalias_level=std
-M /usr/lib/ld/map.bssalign -lmvec

445.gobmk: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xarch=amd64a
-xrestrict -xalias_level=strong -xdepend -xpagesize=2m
-lmvec

456.hmmer: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xarch=amd64a
-Wd,-iropt-prof

458.sjeng: -fast -xarch=amd64a -xipo=2 -xprefetch=auto
-xprefetch_level=3 -xpagesize=2m -lmvec

462.libquantum: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xarch=amd64a
-xipo=2 -xunroll=8

464.h264ref: -fast -xarch=amd64a -xipo=2 -xvector -xunroll=8
-xalias_level=strong -xrestrict -xpagesize=2m -lmvec

C++ benchmarks:

471.omnetpp: -fast -xipo=2 -xprefetch_level=3 -xpagesize=2m
-xarch=sse2a -Qoption ube -fsimple=3 -library=stlport4

473.astar: -fast -xrestrict -xarch=amd64a -xipo=2 -xprefetch_level=3
-xpagesize=2m -library=stlport4

Continued on next page

Peak Optimization Flags (Continued)

483.xalancbmk: `-xprofile=collect:./feedback`(pass 1)
`-xprofile=use:./feedback`(pass 2) `-fast -xipo=2`
`-xarch=sse2a -xpagesize=2m -library=stlport4`

Peak Other Flags

C benchmarks:
`-V`

C++ benchmarks:
`-verbose=version`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Sun-Solaris-Studio-Opteron.20090715.01.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Sun-Solaris-Studio-Opteron.20090715.01.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 10:12:29 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 25 January 2007.