SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

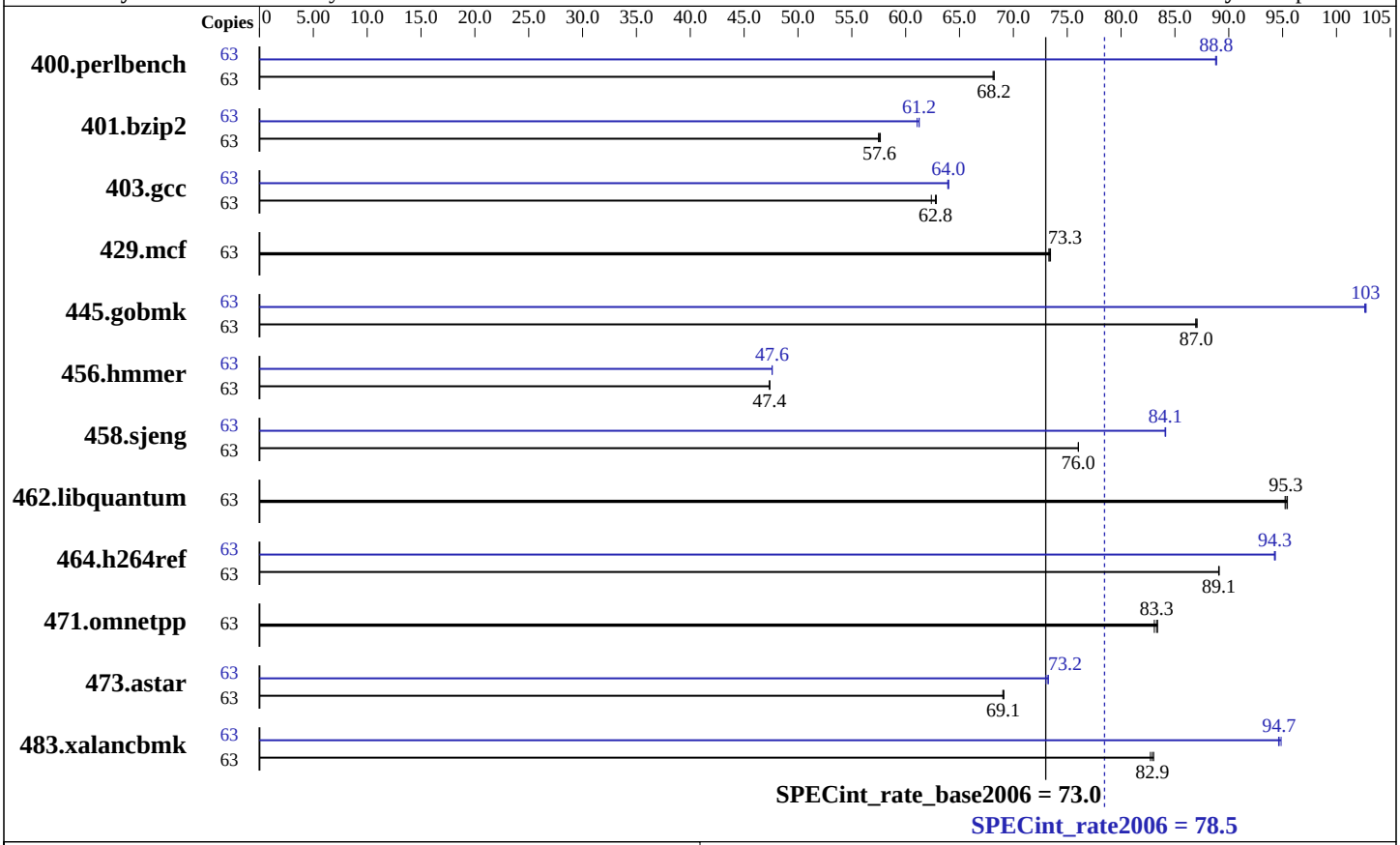
Sun Microsystems
Sun SPARC Enterprise T5120

SPECint®_rate2006 = 78.5

SPECint_rate_base2006 = 73.0

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

Test date: Sep-2007
Hardware Availability: Oct-2007
Software Availability: Sep-2007



Hardware

CPU Name:	UltraSPARC T2
CPU Characteristics:	
CPU MHz:	1417
FPU:	Integrated
CPU(s) enabled:	8 cores, 1 chip, 8 cores/chip, 8 threads/core
CPU(s) orderable:	1 chip
Primary Cache:	16 KB I + 8 KB D on chip per core
Secondary Cache:	4 MB I+D on chip per chip
L3 Cache:	None
Other Cache:	None
Memory:	64 GB (16 x 4 GB)
Disk Subsystem:	275 GB Solaris Volume Manager RAID 0, interlace 384KB, on 5 x SUN72G 10K RPM SAS disks; ufs fragment size 8192 bytes
Other Hardware:	None

Software

Operating System:	Solaris 10 8/07 (build s10s_u4wos_12b)
Compiler:	Sun Studio 12 (patch build 2007/08/30)
Auto Parallel:	No
File System:	ufs
System State:	Default
Base Pointers:	32-bit
Peak Pointers:	32-bit
Other Software:	None

SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Sun Microsystems
Sun SPARC Enterprise T5120

SPECint_rate2006 = 78.5

SPECint_rate_base2006 = 73.0

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

Test date: Sep-2007
Hardware Availability: Oct-2007
Software Availability: Sep-2007

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	63	**9026**	**68.2**	9023	68.2	9037	68.1	63	**6929**	**88.8**	6926	88.9	6933	88.8
401.bzip2	63	10578	57.5	10546	57.6	**10561**	**57.6**	63	9956	61.1	9925	61.3	**9927**	**61.2**
403.gcc	63	8070	62.8	**8080**	**62.8**	8130	62.4	63	**7929**	**64.0**	7936	63.9	7925	64.0
429.mcf	63	**7835**	**73.3**	7823	73.4	7838	73.3	63	**7835**	**73.3**	7823	73.4	7838	73.3
445.gobmk	63	**7598**	**87.0**	7602	86.9	7591	87.1	63	6440	103	6432	103	**6433**	**103**
456.hmmer	63	12412	47.4	12409	47.4	**12409**	**47.4**	63	**12348**	**47.6**	12350	47.6	12348	47.6
458.sjeng	63	10025	76.0	**10026**	**76.0**	10026	76.0	63	9059	84.1	9065	84.1	**9063**	**84.1**
462.libquantum	63	**13697**	**95.3**	13708	95.2	13676	95.4	63	**13697**	**95.3**	13708	95.2	13676	95.4
464.h264ref	63	15647	89.1	**15650**	**89.1**	15655	89.1	63	14794	94.2	**14786**	**94.3**	14782	94.3
471.omnetpp	63	4739	83.1	4722	83.4	**4727**	**83.3**	63	4739	83.1	4722	83.4	**4727**	**83.3**
473.astar	63	6399	69.1	**6403**	**69.1**	6407	69.0	63	6037	73.3	**6041**	**73.2**	6056	73.0
483.xalancbmk	63	5255	82.7	**5243**	**82.9**	5236	83.0	63	**4591**	**94.7**	4594	94.6	4583	94.9

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

Compiler Invocation Notes

```
Compiler patches are available at
http://developers.sun.com/sunstudio/downloads/patches/ss12_patches.jsp
```

Operating System Notes

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

ulimit -s 131072 was used to limit the space
consumed by the stack (and therefore make more
space available to the heap).

 /etc/system parameters
    autoup=600
       Causes pages older than the listed number of seconds to
       be written by fsflush.
    tune_t_fsflushr=10
       Controls how many seconds elapse between runs of the
       page flush daemon, fsflush.

 The "webconsole" service was turned off using
     svcadm disable webconsole
```

Platform Notes

```
This result was measured on a Sun SPARC Enterprise
T5220.  All of these are electronically equivalent:
  - Sun SPARC Enterprise T5120
  - Sun SPARC Enterprise T5220
  - Fujitsu SPARC Enterprise T5120
  - Fujitsu SPARC Enterprise T5220
This result was run with 5 internal disks. The correct number of disks
should have been 4 or fewer for the T5120. The number of disks has a
minor effect on T5120 SPEC CPU2006 scores - typically well under 1%.
New results have been submitted using 4 or fewer disks.
```

Base Compiler Invocation

C benchmarks:
```
cc
```

C++ benchmarks:
```
CC
```

Base Portability Flags

400.perlbench: `-DSPEC_CPU_SOLARIS_SPARC`
403.gcc: `-DSPEC_CPU_SOLARIS`
462.libquantum: `-DSPEC_CPU_SOLARIS`
483.xalancbmk: `-DSPEC_CPU_SOLARIS`

Base Optimization Flags

C benchmarks:
```
-g -fast -xipo=2 -xpagesize=4M -xprefetch_level=2 -xalias_level=std
```

C++ benchmarks:
```
-g0 -library=stlport4 -fast -xipo=2 -xpagesize=4M -xdepend
-xprefetch_level=1 -xalias_level=compatible
```

Base Other Flags

C benchmarks:
```
-xjobs=32 -V
```

C++ benchmarks:
```
-xjobs=32 -verbose=diags,version
```

Peak Compiler Invocation

C benchmarks:
cc

C++ benchmarks:
CC

Peak Portability Flags

400.perlbench: -DSPEC_CPU_SOLARIS_SPARC
403.gcc: -DSPEC_CPU_SOLARIS
462.libquantum: -DSPEC_CPU_SOLARIS
483.xalancbmk: -DSPEC_CPU_SOLARIS

Peak Optimization Flags

C benchmarks:

400.perlbench: -g -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xpagesize=4M
-xalias_level=std -xipo=2 -Xc -xrestrict -lfast

401.bzip2: -g -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xpagesize=4M
-xalias_level=strong

403.gcc: -g -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xpagesize=4M
-xalias_level=std -xprefetch_level=2

429.mcf: basepeak = yes

445.gobmk: -g -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xpagesize=4M
-xalias_level=std -xrestrict

456.hmmer: -g -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xpagesize=4M
-xipo=2

458.sjeng: Same as 456.hmmer

462.libquantum: basepeak = yes

464.h264ref: -g -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xpagesize=4M
-xipo=2 -xalias_level=std

Continued on next page

Peak Optimization Flags (Continued)

C++ benchmarks:

471.omnetpp: `basepeak = yes`

473.astar: `-g0 -library=stlport4 -xprofile=collect:./feedback`(pass 1)
`-xprofile=use:./feedback`(pass 2) `-fast -xpagesize_heap=4M -xpagesize_stack=64K -xdepend -xalias_level=compatible -xipo=2 -xarch=v8plusb -lfast -lbsdmalloc`

483.xalancbmk: `-g0 -library=stlport4 -fast -xpagesize=4M -xdepend -xalias_level=compatible -xipo=2 -xprefetch_level=2 -lfast`

Peak Other Flags

C benchmarks:
`-xjobs=32 -V`

C++ benchmarks:
`-xjobs=32 -verbose=diags,version`

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Sun-Solaris-Studio12.20090714.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Sun-Solaris-Studio12.20090714.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 v1.0.1.
Report generated on Tue Jul 22 14:13:18 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 30 October 2007.