SPEC® CINT2006 Result

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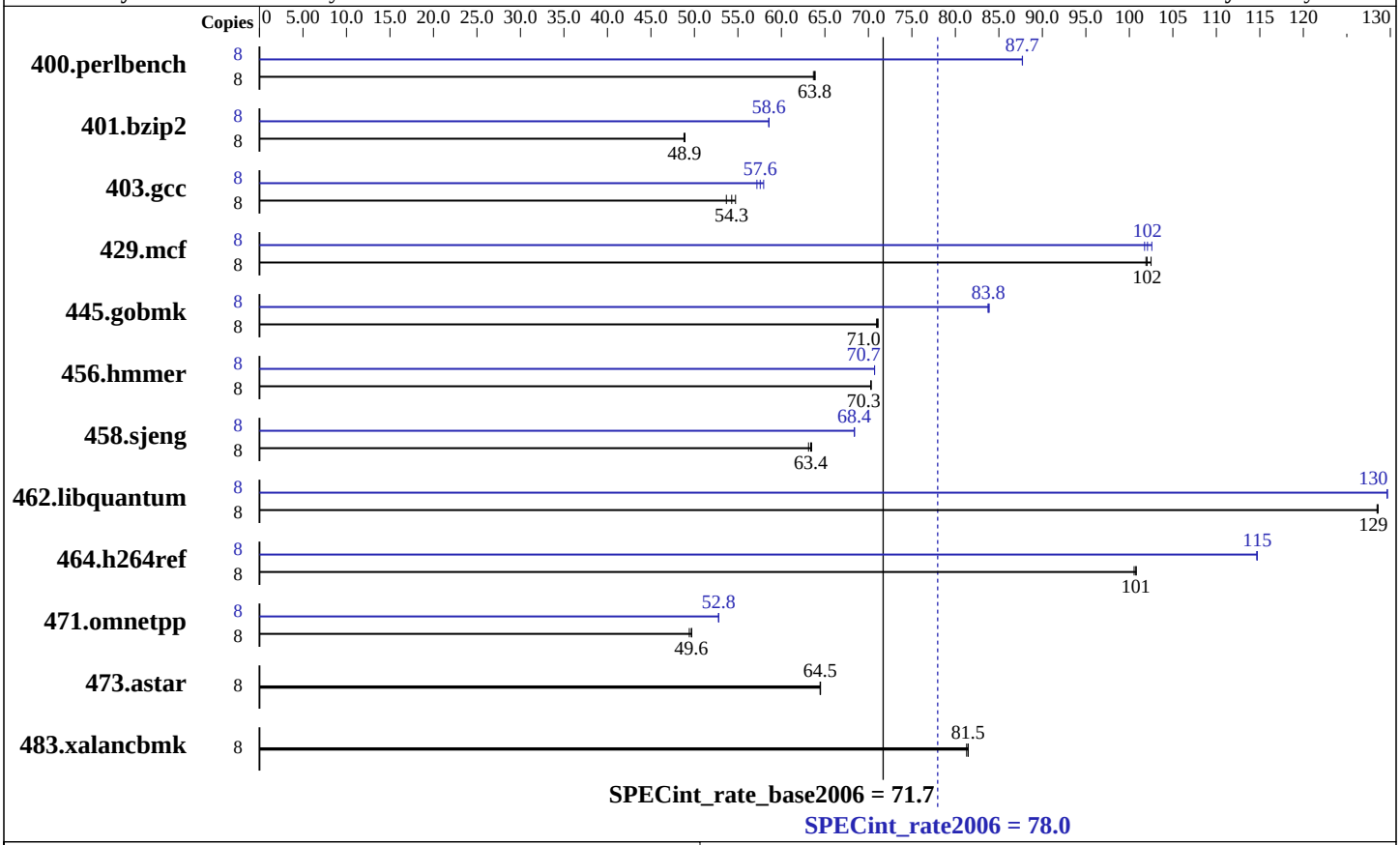
Sun Microsystems
Sun Fire V490

SPECint®_rate2006 = 78.0

SPECint_rate_base2006 = 71.7

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

Test date: Feb-2007
Hardware Availability: Apr-2007
Software Availability: May-2007



Hardware

CPU Name:	UltraSPARC IV+
CPU Characteristics:	
CPU MHz:	2100
FPU:	Integrated
CPU(s) enabled:	8 cores, 4 chips, 2 cores/chip
CPU(s) orderable:	2 or 4 chips
Primary Cache:	64 KB I + 64 KB D on chip per core
Secondary Cache:	2 MB I+D on chip per chip
L3 Cache:	32 MB I+D off chip per chip
Other Cache:	None
Memory:	32 GB, 8-way interleaved (32 x 1 GB)
Disk Subsystem:	1xSCSI 146GB 10k RPM DK32EJ14FSUN146G
Other Hardware:	None

Software

Operating System:	Solaris 10 6/06
Compiler:	Sun Studio 12 (pre-release build 40)
Auto Parallel:	No
File System:	ufs
System State:	Default
Base Pointers:	32-bit
Peak Pointers:	32-bit
Other Software:	None

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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	8	1227	63.7	**1225**	**63.8**	1223	63.9	8	891	87.7	891	87.7	**891**	**87.7**
401.bzip2	8	**1580**	**48.9**	1582	48.8	1578	48.9	8	1318	58.6	1318	58.6	**1318**	**58.6**
403.gcc	8	1177	54.7	**1186**	**54.3**	1200	53.7	8	1111	58.0	**1119**	**57.6**	1126	57.2
429.mcf	8	716	102	712	102	**715**	**102**	8	717	102	**715**	**102**	711	103
445.gobmk	8	**1181**	**71.0**	1183	70.9	1180	71.1	8	1002	83.7	1000	83.9	**1001**	**83.8**
456.hmmer	8	1061	70.3	1062	70.3	**1062**	**70.3**	8	**1056**	**70.7**	1056	70.7	1056	70.7
458.sjeng	8	**1528**	**63.4**	1525	63.5	1534	63.1	8	**1415**	**68.4**	1415	68.4	1416	68.4
462.libquantum	8	1289	129	**1290**	**129**	1290	128	8	**1279**	**130**	1278	130	1279	130
464.h264ref	8	**1757**	**101**	1756	101	1761	101	8	1543	115	**1543**	**115**	1544	115
471.omnetpp	8	1012	49.4	**1007**	**49.6**	1006	49.7	8	947	52.8	947	52.8	**947**	**52.8**
473.astar	8	871	64.5	**871**	**64.5**	871	64.4	8	871	64.5	**871**	**64.5**	871	64.4
483.xalancbmk	8	679	81.3	678	81.5	**678**	**81.5**	8	679	81.3	678	81.5	**678**	**81.5**

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" was set
   Allows 131072K for the stack, remainder for heap

/etc/system parameters
   tune_t_fsflushr=1
      Controls how many seconds elapse between runs of the
      page flush daemon, fsflush.
   autoup=900
      Causes pages older than the listed number of seconds to
      be written by fsflush.
```

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 -xdepend -fast -xipo=2 -xpagesize=4M
-xprefetch_level=1 -xalias_level=compatible -lfast

Base Other Flags

C benchmarks:
-xjobs=8 -V -#

C++ benchmarks:
-xjobs=8 -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 -Xc -xipo=2 -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 -xipo=2 -xalias_level=std -xprefetch_level=2`

429.mcf: `-g -fast -xpagesize=4M -xprefetch_level=2 -xipo=2 -xrestrict -xalias_level=std -lfast`

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 -xalias_level=strong`

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

462.libquantum: `-g -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -xpagesize=4M -xprefetch_level=2 -xipo=2`

464.h264ref: `-g -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -xpagesize=4M -xipo=2 -xalias_level=std -ll2amm`

C++ benchmarks:

471.omnetpp: `-g0 -library=stlport4 -xdepend -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -xpagesize=4M -xipo=2 -Qoption cg -Qlp-av=0 -lfast`

473.astar: `basepeak = yes`

483.xalancbmk: `basepeak = yes`

Peak Other Flags

C benchmarks:
```
-xjobs=8 -V -#
```

C++ benchmarks:
```
-xjobs=8 -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-Studio12.20090714.01.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Sun-Solaris-Studio12.20090714.01.xml

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