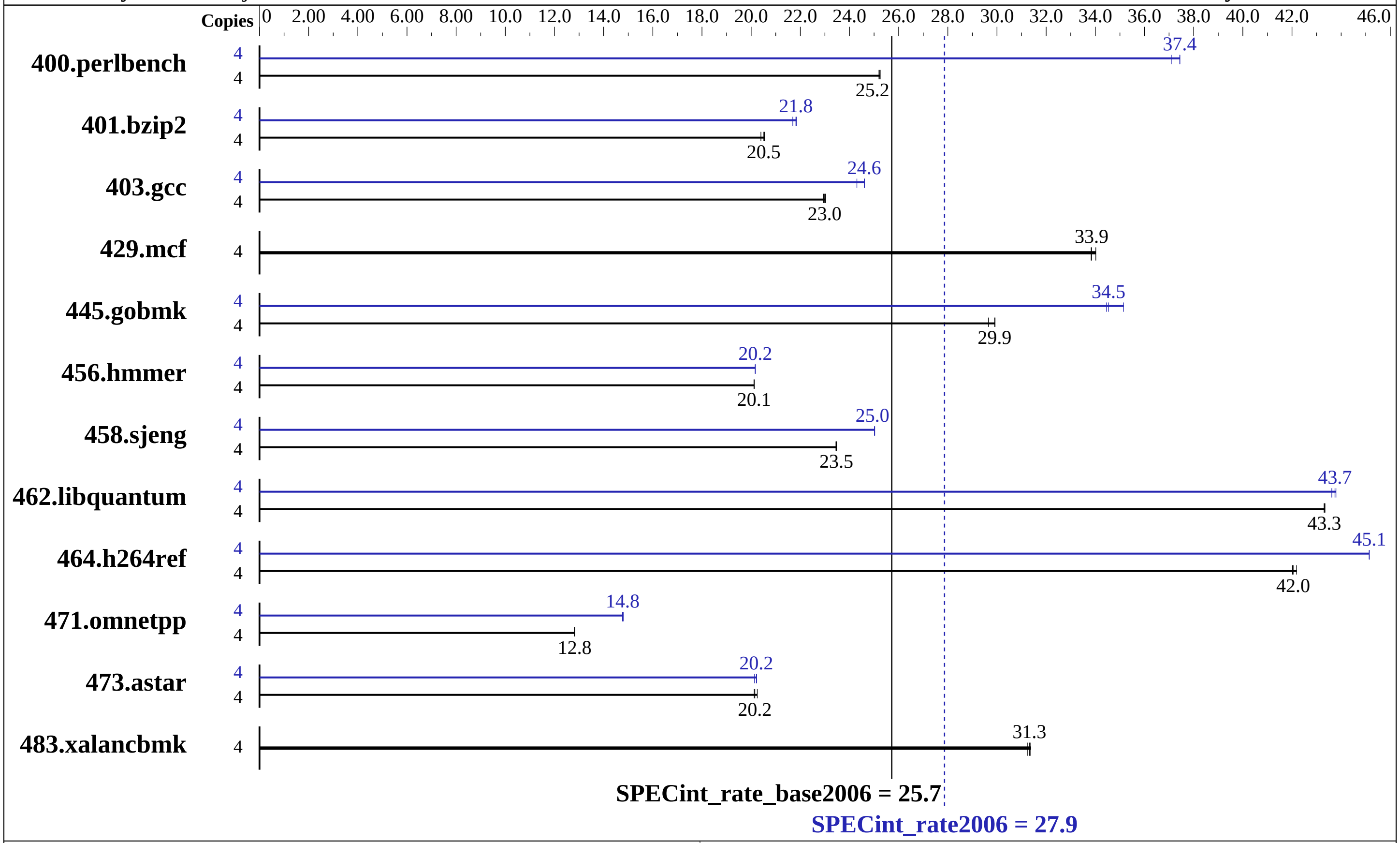
SPEC® CINT2006 Result

Sun Microsystems
Sun SPARC Enterprise M3000

SPECint®_rate2006 = 27.9

SPECint_rate_base2006 = 25.7

CPU2006 license: 6		**Test date:**	Sep-2008
Test sponsor:	Sun Microsystems	**Hardware Availability:**	Jan-2009
Tested by:	Fujitsu Limited	**Software Availability:**	Oct-2008



Hardware

CPU Name:	SPARC64 VII
CPU Characteristics:	2 Cores
CPU MHz:	2520
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip, 2 threads/core
CPU(s) orderable:	1 chip
Primary Cache:	64 KB I + 64 KB D on chip per core
Secondary Cache:	5 MB I+D on chip per chip
L3 Cache:	None
Other Cache:	None
Memory:	16 GB (2 GB x 8), 2-way interleaved
Disk Subsystem:	73 GB 10,000 RPM Fujitsu MAY2073RC SAS
Other Hardware:	None

Software

Operating System:	Solaris 10 10/08
Compiler:	Sun Studio 12 with patches 124861-08, 124863-06, 124867-07 (see patch information below)
Auto Parallel:	No
File System:	ufs
System State:	Default
Base Pointers:	32-bit
Peak Pointers:	32-bit
Other Software:	None

Results Table

	Base							Peak						
Benchmark	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	4	1551	25.2	1548	25.3	**1549**	**25.2**	4	1054	37.1	**1044**	**37.4**	1044	37.4
401.bzip2	4	**1882**	**20.5**	1879	20.5	1892	20.4	4	1767	21.8	**1769**	**21.8**	1779	21.7
403.gcc	4	**1401**	**23.0**	1398	23.0	1403	22.9	4	**1309**	**24.6**	1308	24.6	1325	24.3
429.mcf	4	1078	33.8	**1078**	**33.9**	1072	34.0	4	1078	33.8	**1078**	**33.9**	1072	34.0
445.gobmk	4	**1403**	**29.9**	1415	29.7	1402	29.9	4	1194	35.1	1218	34.5	**1215**	**34.5**
456.hmmer	4	1854	20.1	**1855**	**20.1**	1856	20.1	4	1850	20.2	**1850**	**20.2**	1851	20.2
458.sjeng	4	2062	23.5	**2062**	**23.5**	2064	23.4	4	**1934**	**25.0**	1935	25.0	1934	25.0
462.libquantum	4	1914	43.3	1912	43.3	**1914**	**43.3**	4	1900	43.6	1893	43.8	**1894**	**43.7**
464.h264ref	4	2107	42.0	2098	42.2	**2105**	**42.0**	4	1961	45.1	**1961**	**45.1**	1961	45.1
471.omnetpp	4	1950	12.8	**1950**	**12.8**	1952	12.8	4	1689	14.8	**1692**	**14.8**	1693	14.8
473.astar	4	**1393**	**20.2**	1395	20.1	1387	20.2	4	**1389**	**20.2**	1388	20.2	1394	20.1
483.xalancbmk	4	880	31.4	883	31.2	**881**	**31.3**	4	880	31.4	883	31.2	**881**	**31.3**

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

Compiler Invocation Notes

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

Submit Notes

```
Processes were assigned to specific processors using 'pbind' commands.  The config
file option 'submit' was used, along with a list of processors in the 'BIND'
variable, to generate the pbind commands.  (For details, please see the config file.)
```

Operating System Notes

```
Shell Environments:
   Default setting.

System Tunables:
(/etc/system parameters)

   tune_t_fsflushr=10
      Controls how many seconds elapse between runs of the
      page flush daemon, fsflush.
   autoup=600
      Causes pages older than the listed number of seconds to
      be written by fsflush.
   bufhwm=3000
      Memory byte limit for caching I/O buffers.
```

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Operating System Notes (Continued)

```
    segmap_percent=1
       Set maximum percent memory for file system cache.

 Other System Settings:

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

Platform Notes

```
 Memory is 2-way interleaved by filling all slots with the same
 capacity DIMMs.

 This result is measured on a Fujitsu SPARC Enterprise M3000 Server.
 Note that the Fujitsu SPARC Enterprise M3000 and Sun SPARC Enterprise
 M3000 are electrically equivalent.
```

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:
```
-fast -fma=fused -xipo=2 -xpagesize=4M -xprefetch_level=1
-xalias_level=std -ll2amm
```

C++ benchmarks:
```
-library=stlport4 -fast -fma=fused -xipo=2 -xpagesize=4M
-xprefetch_level=2 -xalias_level=compatible -lfast
```

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Base Other Flags

C benchmarks:
-xjobs=4

C++ benchmarks:
-xjobs=4

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

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

403.gcc: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -fma=fused
-xpagesize=4M -xipo=2 -xalias_level=std -xprefetch=no
-ll2amm

429.mcf: basepeak = yes

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

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Peak Optimization Flags (Continued)

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

458.sjeng: Same as 456.hmmer

462.libquantum: -fast -fma=fused -xpagesize=4M -xipo=2 -xprefetch=no -lbsdmalloc

464.h264ref: -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -fma=fused -xpagesize=4M -xipo=2 -xalias_level=std -m32 -xarch=sparcvis2 -xprefetch=no -ll2amm

C++ benchmarks:

471.omnetpp: -library=stlport4 -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -fma=fused -xpagesize=4M -xalias_level=compatible -xipo=2 -xprefetch_level=2 -Qoption cg -Qlp-av=0 -lfast

473.astar: -library=stlport4 -fast -fma=fused -xpagesize=4M -xalias_level=compatible -xipo=2 -xprefetch_level=2 -lfast

483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:
-xjobs=4

C++ benchmarks:
-xjobs=4

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Sun-Solaris-Studio12-and-gccfss4.2.r3.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Sun-Solaris-Studio12-and-gccfss4.2.r3.xml

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

Tested with SPEC CPU2006 v1.1.
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