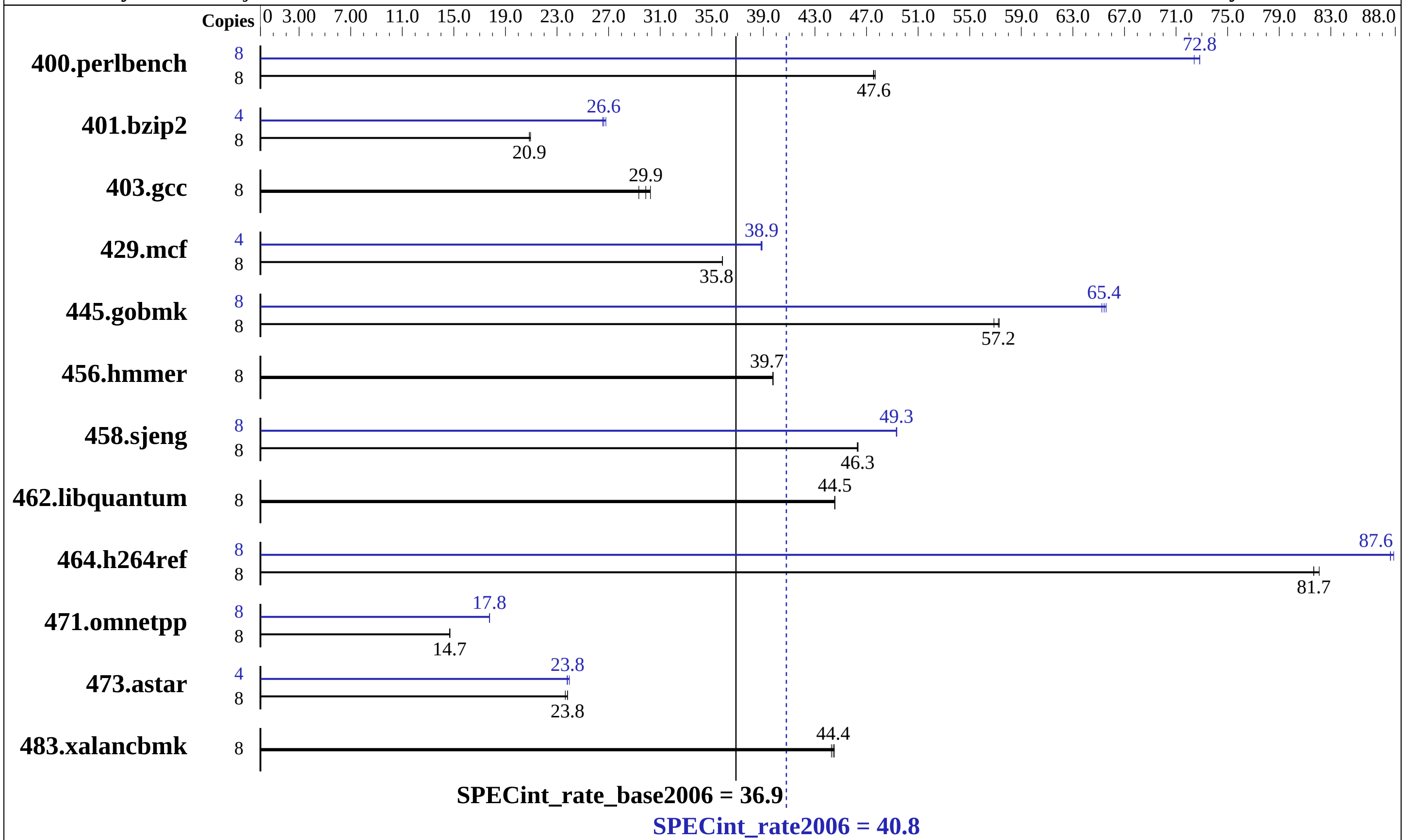
SPEC® CINT2006 Result

Sun Microsystems
Sun SPARC Enterprise M3000

SPECint®_rate2006 = 40.8

SPECint_rate_base2006 = 36.9

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



Hardware

CPU Name:	SPARC64 VII
CPU Characteristics:	
CPU MHz:	2520
FPU:	Integrated
CPU(s) enabled:	4 cores, 1 chip, 4 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, 127143-03, 127000-05, 127001-01 (see patch information below)
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

	Base							Peak						
Benchmark	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	8	1639	47.7	**1643**	**47.6**	1644	47.5	8	1079	72.4	1073	72.8	**1073**	**72.8**
401.bzip2	8	**3701**	**20.9**	3685	20.9	3701	20.9	4	1441	26.8	**1450**	**26.6**	1454	26.5
403.gcc	8	**2155**	**29.9**	2195	29.3	2129	30.2	8	**2155**	**29.9**	2195	29.3	2129	30.2
429.mcf	8	2036	35.8	2036	35.8	**2036**	**35.8**	4	938	38.9	**939**	**38.9**	940	38.8
445.gobmk	8	**1467**	**57.2**	1465	57.3	1475	56.9	8	1280	65.6	1286	65.2	**1283**	**65.4**
456.hmmer	8	1877	39.8	1879	39.7	**1878**	**39.7**	8	1877	39.8	1879	39.7	**1878**	**39.7**
458.sjeng	8	2092	46.3	2089	46.3	**2090**	**46.3**	8	**1963**	**49.3**	1963	49.3	1961	49.4
462.libquantum	8	**3721**	**44.5**	3723	44.5	3720	44.6	8	**3721**	**44.5**	3723	44.5	3720	44.6
464.h264ref	8	2168	81.7	**2167**	**81.7**	2156	82.1	8	**2020**	**87.6**	2015	87.9	2020	87.6
471.omnetpp	8	3409	14.7	3400	14.7	**3406**	**14.7**	8	**2815**	**17.8**	2816	17.8	2813	17.8
473.astar	8	2358	23.8	**2359**	**23.8**	2375	23.6	4	1181	23.8	**1179**	**23.8**	1172	24.0
483.xalancbmk	8	1240	44.5	1247	44.3	**1243**	**44.4**	8	1240	44.5	1247	44.3	**1243**	**44.4**

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

```
The config file option 'submit' was used.  Processes were assigned to
specific processors using 'pbind' commands.  The list of processors to use
was provided 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`

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: basepeak = yes

429.mcf: -fast -fma=fused -xpagesize=4M -xipo=2 -xalias_level=std -ll2amm

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: `basepeak = yes`

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

462.libquantum: `basepeak = yes`

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.r3.20090713.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.r3.20090713.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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