SPEC® CINT2006 Result

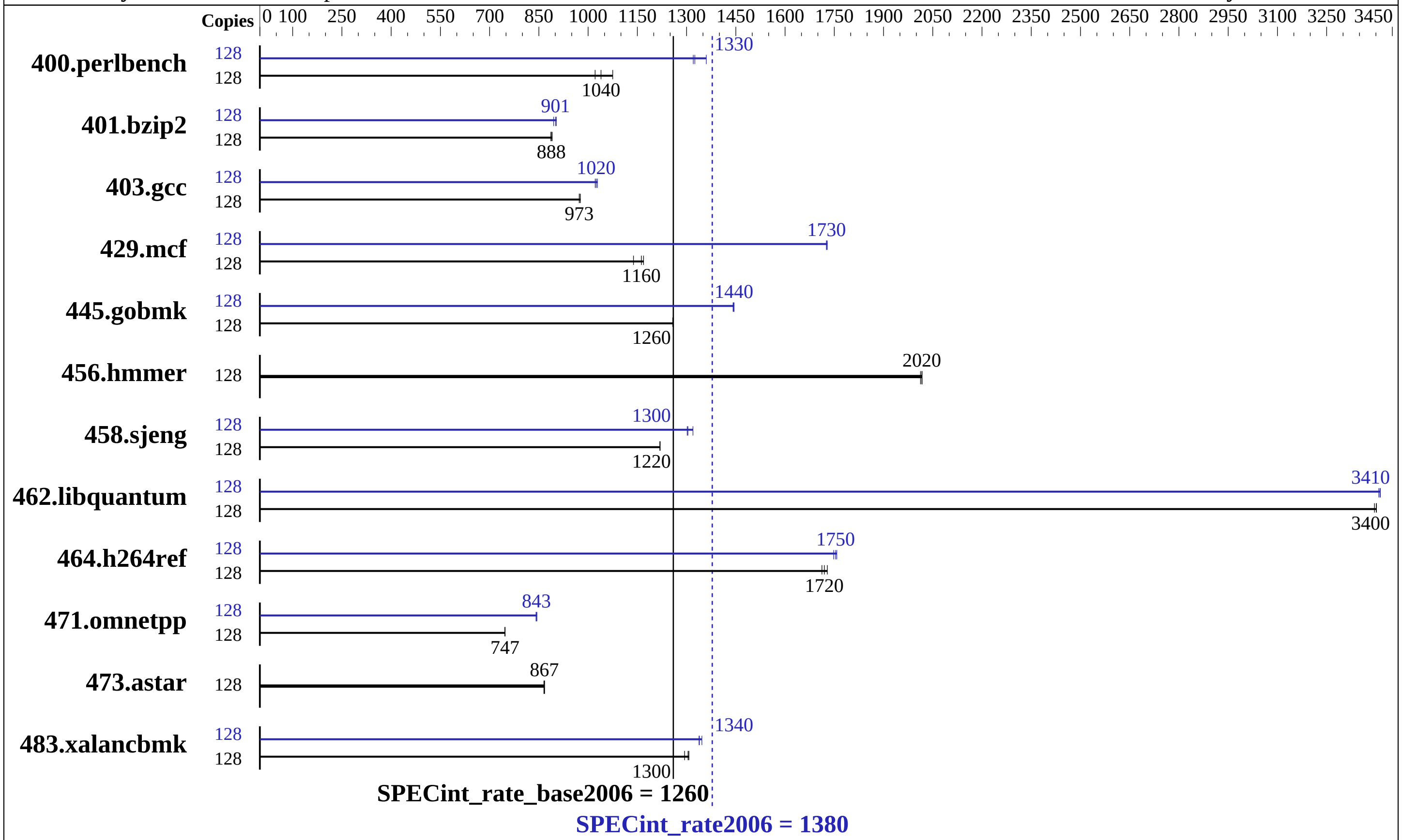
Oracle Corporation

SPECint®_rate2006 = 1380

Sun Fire X4800 (Intel Xeon X7560 2.26GHz)

SPECint_rate_base2006 = 1260

CPU2006 license:	6	**Test date:**	May-2010
Test sponsor:	Oracle Corporation	**Hardware Availability:**	Jul-2010
Tested by:	Oracle Corporation	**Software Availability:**	Jun-2010



Hardware

CPU Name:	Intel Xeon X7560
CPU Characteristics:	Intel Turbo Boost Technology up to 2.67 GHz
CPU MHz:	2266
FPU:	Integrated
CPU(s) enabled:	64 cores, 8 chips, 8 cores/chip, 2 threads/core
CPU(s) orderable:	4,8 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	256 KB I+D on chip per core
L3 Cache:	24 MB I+D on chip per chip
Other Cache:	None
Memory:	256 GB (64x4GB, DDR3-1066 CL7 dual-rank ECC Reg)
Disk Subsystem:	3 x 300 GB, SAS, 10000 RPM in RAIDZ Configuration
Other Hardware:	None

Software

Operating System:	Oracle Solaris 10 10/09
Compiler:	Oracle Solaris Studio Express 6/10
Auto Parallel:	No
File System:	zfs
System State:	Default
Base Pointers:	32/64-bit
Peak Pointers:	32/64-bit
Other Software:	MicroQuill SmartHeap Library 9.01 for x64

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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	128	1163	1080	1224	1020	**1203**	**1040**	128	919	1360	**944**	**1330**	947	1320
401.bzip2	128	1393	887	1387	891	**1391**	**888**	128	1380	895	**1371**	**901**	1367	903
403.gcc	128	**1059**	**973**	1059	973	1055	977	128	**1005**	**1020**	1002	1030	1009	1020
429.mcf	128	1026	1140	999	1170	**1004**	**1160**	128	**676**	**1730**	676	1730	675	1730
445.gobmk	128	1068	1260	**1067**	**1260**	1066	1260	128	**930**	**1440**	931	1440	930	1440
456.hmmer	128	**592**	**2020**	592	2020	593	2010	128	**592**	**2020**	592	2020	593	2010
458.sjeng	128	1271	1220	**1270**	**1220**	1270	1220	128	**1188**	**1300**	1190	1300	1174	1320
462.libquantum	128	**780**	**3400**	781	3400	780	3400	128	778	3410	777	3410	**777**	**3410**
464.h264ref	128	**1647**	**1720**	1654	1710	1638	1730	128	1612	1760	1620	1750	**1615**	**1750**
471.omnetpp	128	**1071**	**747**	1071	747	1071	747	128	948	844	**949**	**843**	951	841
473.astar	128	**1037**	**867**	1038	865	1036	867	128	**1037**	**867**	1038	865	1036	867
483.xalancbmk	128	683	1290	**677**	**1300**	676	1310	128	656	1350	660	1340	**659**	**1340**

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

Submit Notes

```
The config file option 'submit' was used.
```

Operating System Notes

```
ulimit -s unlimited  (shell)

/etc/system parameters
 tune_t_fsflushr=10
 autoup=900
 zfs:zfs_arc_max = 0x10000000
 lpg_alloc_prefer=1
```

Platform Notes

```
Default BIOS settings used
```

Base Compiler Invocation

C benchmarks:
```
cc
```

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

Base Portability Flags

400.perlbench: -DSPEC_CPU_SOLARIS_X64 -DSPEC_CPU_LP64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_SOLARIS -DSPEC_CPU_LP64
429.mcf: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_SOLARIS -DSPEC_CPU_LP64
464.h264ref: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_SOLARIS

Base Optimization Flags

C benchmarks:
-fast -xipo=2 -m64 -xaddr32=yes -xpagesize=2M

C++ benchmarks:
-fast -xipo=2 -xpagesize=2M -xalias_level=compatible
-L/data1/SmartHeap_9/lib -R/data1/SmartHeap_9/lib -lsmartheap
-library=stlport4

Base Other Flags

C benchmarks:
-V -# -xjobs=128

C++ benchmarks:
-verbose=diags,version -xjobs=128

Peak Compiler Invocation

C benchmarks:
cc

C++ benchmarks:
CC

Peak Portability Flags

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

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Peak Portability Flags (Continued)

456.hmmer: -DSPEC_CPU_LP64
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 -xipo=1 -m64 -xalias_level=std -lbsdmalloc

401.bzip2: -fast -xipo=2 -m64 -xpagesize=2M -xalias_level=std -lumem

403.gcc: -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -xipo=2 -xpagesize=2M -W2,-Rujam -W2,-Rtile -m64 -xalias_level=std

429.mcf: -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -xipo=2 -m32 -xpagesize=2M -xalias_level=strong -xprefetch=no%auto -lbsdmalloc

445.gobmk: -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -m64 -xpagesize=2M -xrestrict -xalias_level=strong

456.hmmer: basepeak = yes

458.sjeng: -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -xipo=2 -m64 -xpagesize=2M -xalias_level=strong

462.libquantum: -fast -xipo=2 -m64 -xalias_level=std

464.h264ref: -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -xipo=2 -m64 -xalias_level=strong -xrestrict

C++ benchmarks:

471.omnetpp: -xprofile=collect:./feedback(pass 1) -xprofile=use:./feedback(pass 2) -fast -xipo=2 -xpagesize=2M -library=stlport4 -L/data1/SmartHeap_9/lib -R/data1/SmartHeap_9/lib -lsmartheap

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Peak Optimization Flags (Continued)

473.astar: basepeak = yes

483.xalancbmk: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2 -xunroll=2
-xpagesize=2M -xalias_level=compatible -library=stlport4
-m32
-L/data1/SmartHeap_9/lib -R/data1/SmartHeap_9/lib -lsmartheap

Peak Other Flags

C benchmarks:
-V -# -xjobs=128

C++ benchmarks:
-verbose=diags,version -xjobs=128

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Oracle-Solaris-Studio-x86_64.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Oracle-Solaris-Studio-x86_64.xml

Tested with SPEC CPU2006 v1.1.
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