SPEC® CINT2006 Result

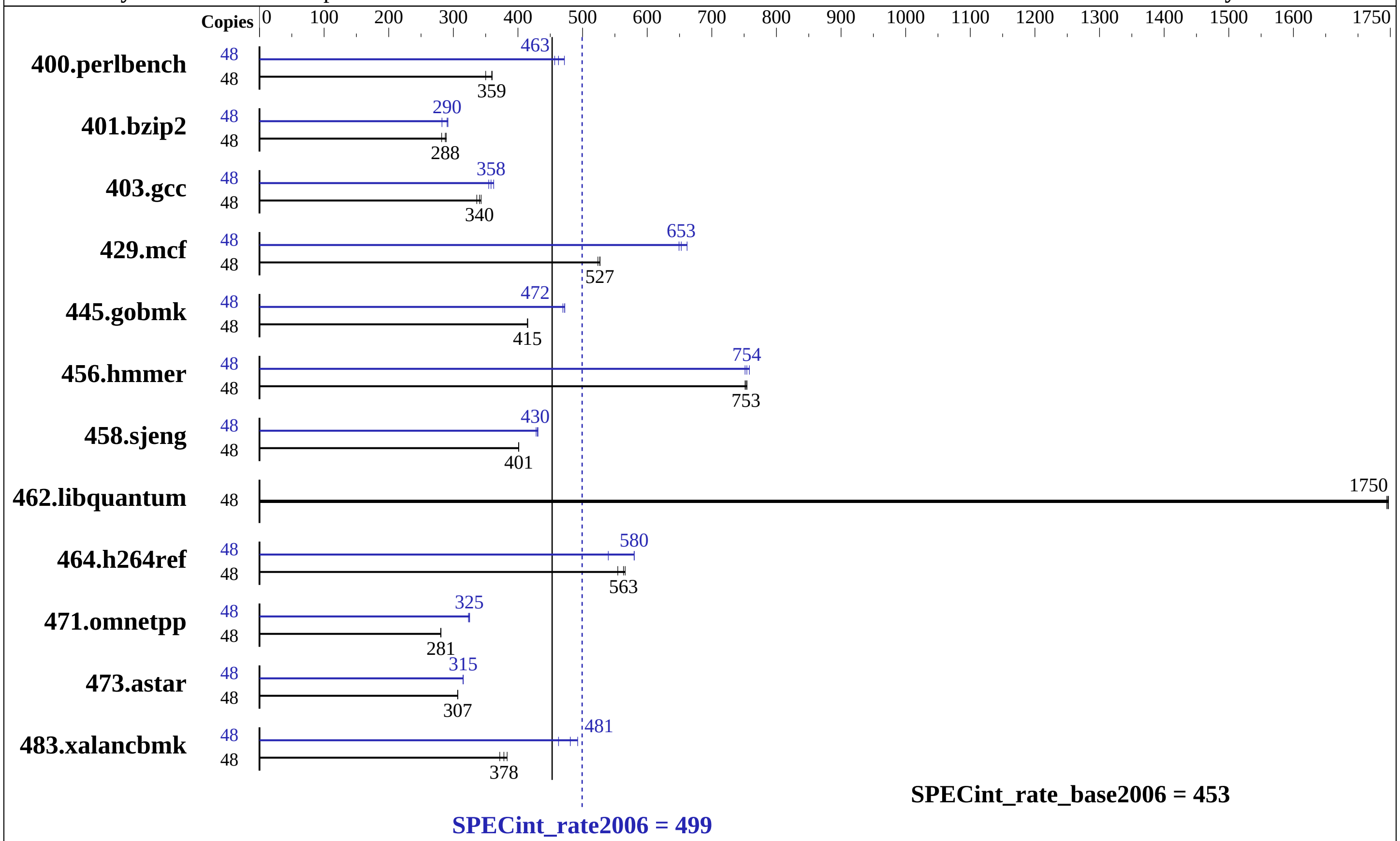
Oracle Corporation

Sun Fire X4470 (Intel Xeon E7530 1.87 GHz)

SPECint®_rate2006 = 499

SPECint_rate_base2006 = 453

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



Hardware

CPU Name:	Intel Xeon E7530
CPU Characteristics:	Intel Turbo Boost Technology up to 2.13 GHz
CPU MHz:	1867
FPU:	Integrated
CPU(s) enabled:	24 cores, 4 chips, 6 cores/chip, 2 threads/core
CPU(s) orderable:	1-4 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:	12 MB I+D on chip per chip
Other Cache:	None
Memory:	256 GB (64 x 4 GB 2Rx4 PC3-10600R-9, ECC, see add'l detail in notes)
Disk Subsystem:	1 x 500 GB, SATA, 7200 RPM
Other Hardware:	None

Software

Operating System:	Oracle Solaris 10 9/10
Compiler:	Oracle Solaris Studio Express 6/10
Auto Parallel:	No
File System:	ufs
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

	Base							Peak						
Benchmark	**Copies**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Copies**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
400.perlbench	48	1340	350	**1305**	**359**	1302	360	48	1027	457	**1013**	**463**	994	472
401.bzip2	48	1643	282	1602	289	**1611**	**288**	48	1640	282	**1595**	**290**	1588	292
403.gcc	48	**1135**	**340**	1126	343	1149	336	48	1066	363	**1078**	**358**	1089	355
429.mcf	48	836	524	831	527	**831**	**527**	48	**671**	**653**	674	649	662	662
445.gobmk	48	1214	415	**1214**	**415**	1213	415	48	1066	473	1072	470	**1066**	**472**
456.hmmer	48	596	751	594	755	**595**	**753**	48	**594**	**754**	591	758	596	751
458.sjeng	48	1449	401	1447	401	**1448**	**401**	48	**1350**	**430**	1357	428	1348	431
462.libquantum	48	**570**	**1750**	570	1740	569	1750	48	**570**	**1750**	570	1740	569	1750
464.h264ref	48	1877	566	**1886**	**563**	1916	554	48	**1832**	**580**	1832	580	1968	540
471.omnetpp	48	1070	280	1068	281	**1068**	**281**	48	928	323	**924**	**325**	922	325
473.astar	48	1099	307	1098	307	**1098**	**307**	48	**1069**	**315**	1068	315	1070	315
483.xalancbmk	48	891	372	**876**	**378**	864	383	48	716	463	673	492	**689**	**481**

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
   lpg_alloc_prefer=1
```

Platform Notes

```
The system automatically configures the memory to run at 978 MHz.
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=64
```

C++ benchmarks:
```
-verbose=diags,version -xjobs=64
```

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)

462.libquantum: `-DSPEC_CPU_SOLARIS -DSPEC_CPU_LP64`
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: `-xprofile=collect:./feedback`(pass 1) `-xprofile=use:./feedback`(pass 2) `-fast -xipo=2 -m64`

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

462.libquantum: `basepeak = yes`

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: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2 -m64
-xpagesize=2M -xalias_level=compatible -library=stlport4
-L/data1/SmartHeap_9/lib -R/data1/SmartHeap_9/lib -lsmartheap64

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=64

C++ benchmarks:
-verbose=diags,version -xjobs=64

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Oracle-Solaris-Studio-x86_64.20100901.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Oracle-Solaris-Studio-x86_64.20100901.xml

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

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