# SPEC® CINT2006 Result



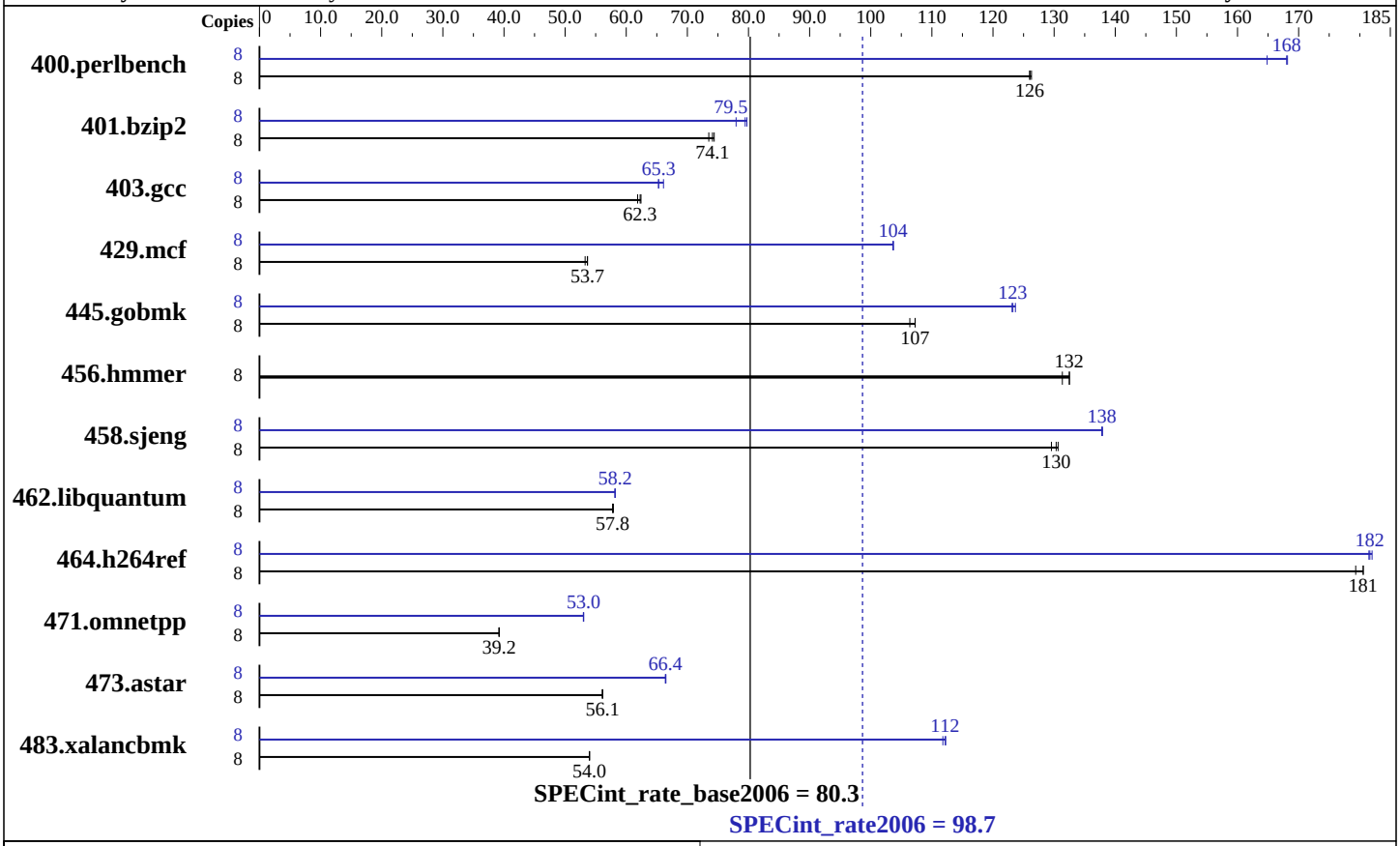
## Sun Microsystems
## Sun Blade X6250

SPECint®_rate2006 = 98.7

SPECint_rate_base2006 = 80.3

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

**Test date:** Jun-2007
**Hardware Availability:** Jun-2007
**Software Availability:** Jul-2007




## Hardware

| | |
|---|---|
| CPU Name: | Intel Xeon X5355 |
| CPU Characteristics: | 1333 MHz system bus |
| CPU MHz: | 2667 |
| FPU: | Integrated |
| CPU(s) enabled: | 8 cores, 2 chips, 4 cores/chip |
| CPU(s) orderable: | 1-2 (order by number of chips) |
| Primary Cache: | 32 KB I + 32 KB D on chip per core |
| Secondary Cache: | 8 MB I+D on chip per chip, 4 MB shared / 2 cores |
| L3 Cache: | None |
| Other Cache: | None |
| Memory: | 32 GB (16x2GB DDR2 PC2-5300F 2rank CAS 5-5-5 with ECC) |
| Disk Subsystem: | SAS, 72 GB, 10K RPM |
| Other Hardware: | None |

## Software

| | |
|---|---|
| Operating System: | Solaris 10 11/06 |
| Compiler: | Sun Studio 12 |
| Auto Parallel: | No |
| File System: | ufs |
| System State: | Multiuser, Runlevel 3 |
| Base Pointers: | 64-bit |
| Peak Pointers: | 32/64-bit |
| Other Software: | MicroQuill SmartHeap Library v7.4 |

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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 | 620 | 126 | 619 | 126 | **620** | **126** | 8 | **465** | **168** | 474 | 165 | 465 | 168 |
| 401.bzip2 | 8 | 1050 | 73.5 | 1038 | 74.4 | **1042** | **74.1** | 8 | 990 | 78.0 | 968 | 79.7 | **972** | **79.5** |
| 403.gcc | 8 | 1041 | 61.9 | **1034** | **62.3** | 1032 | 62.4 | 8 | **986** | **65.3** | 974 | 66.1 | 987 | 65.3 |
| 429.mcf | 8 | 1370 | 53.3 | 1360 | 53.7 | **1360** | **53.7** | 8 | 704 | 104 | **704** | **104** | 704 | 104 |
| 445.gobmk | 8 | 789 | 106 | 782 | 107 | **782** | **107** | 8 | 682 | 123 | 679 | 124 | **681** | **123** |
| 456.hmmer | 8 | 568 | 131 | **563** | **132** | 563 | 133 | 8 | 568 | 131 | **563** | **132** | 563 | 133 |
| 458.sjeng | 8 | 747 | 130 | 741 | 131 | **743** | **130** | 8 | **702** | **138** | 702 | 138 | 702 | 138 |
| 462.libquantum | 8 | 2863 | 57.9 | **2868** | **57.8** | 2869 | 57.8 | 8 | **2849** | **58.2** | 2850 | 58.2 | 2849 | 58.2 |
| 464.h264ref | 8 | 987 | 179 | 980 | 181 | **981** | **181** | 8 | 973 | 182 | 975 | 181 | **975** | **182** |
| 471.omnetpp | 8 | 1275 | 39.2 | 1276 | 39.2 | **1275** | **39.2** | 8 | 944 | 53.0 | 943 | 53.0 | **943** | **53.0** |
| 473.astar | 8 | 1001 | 56.1 | **1000** | **56.1** | 1000 | 56.1 | 8 | 845 | 66.5 | **845** | **66.4** | 846 | 66.4 |
| 483.xalancbmk | 8 | 1023 | 54.0 | 1022 | 54.0 | **1023** | **54.0** | 8 | 494 | 112 | **492** | **112** | 492 | 112 |

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 unlimited' was used to set the stacksize to unlimited prior to run
```

## Platform Notes

```
BIOS configuration:
Hardware Prefetch = Disable, Adjacent Sector Prefetch = Disable
```

## Base Compiler Invocation

C benchmarks:
cc

C++ benchmarks:
CC

## Base Portability Flags

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

## Base Optimization Flags

C benchmarks:
-fast -xipo=2 -xarch=sse2 -m64

C++ benchmarks:
-fast -xipo=2 -xarch=sse2 -m64 -library=stlport4

## Base Other Flags

C benchmarks:
-V

C++ benchmarks:
-verbose=version

## Peak Compiler Invocation

C benchmarks:
cc

C++ benchmarks:
CC

## Peak Portability Flags

400.perlbench: -DSPEC_CPU_SOLARIS_X64
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=2
-xalias_level=std -xvector=simd -xpagesize=2m -lbsdmalloc
-L/data1/SmartHeap_7.4smp/lib -lsmartheap_smp

401.bzip2: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2 -xarch=sse2
-m64 -xalias_level=strong -xpagesize=2m

403.gcc: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2 -m64
-xalias_level=std -xprefetch_level=2 -xpagesize=2m

429.mcf: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2 -xarch=sse2
-xalias_level=strict -xpagesize=2m -lbsdmalloc

445.gobmk: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xarch=sse2 -m64
-xrestrict -xalias_level=strong -xdepend -xpagesize=2m
-lmvec

456.hmmer: basepeak = yes

458.sjeng: -fast -xarch=sse2 -m64 -xipo=2 -xprefetch=auto
-xprefetch_level=3 -xpagesize=2m -lmvec

462.libquantum: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2 -xarch=sse2
-m64 -xunroll=8 -xpagesize=2m

464.h264ref: -fast -xarch=sse2 -m64 -xipo=2 -xvector -xunroll=8
-xalias_level=strong -xrestrict -xpagesize=2m -lmvec

C++ benchmarks:

471.omnetpp: -xprofile=collect:./feedback(pass 1)
-xprofile=use:./feedback(pass 2) -fast -xipo=2
-xprefetch_level=3 -xarch=sse2 -Qoption ube -fsimple=3
-L/data1/SmartHeap_7.4smp/lib -lsmartheap_smp
-library=stlport4

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## Peak Optimization Flags (Continued)

473.astar: `-fast -xipo=2 -L/data1/SmartHeap_7.4smp/lib -lsmartheap_smp -library=stlport4`

483.xalancbmk: `-xprofile=collect:./feedback`(pass 1) `-xprofile=use:./feedback`(pass 2) `-fast -xipo=2 -xarch=sse2 -xpagesize_stack=2m -L/data1/SmartHeap_7.4smp/lib -lsmartheap_smp -library=stlport4`

## Peak Other Flags

C benchmarks:
`-V`

C++ benchmarks:
`-verbose=version`

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Sun-Solaris-Studio-Opteron.20090715.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Sun-Solaris-Studio-Opteron.20090715.xml



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

Tested with SPEC CPU2006 v1.0.
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