# SPEC® CINT2006 Result



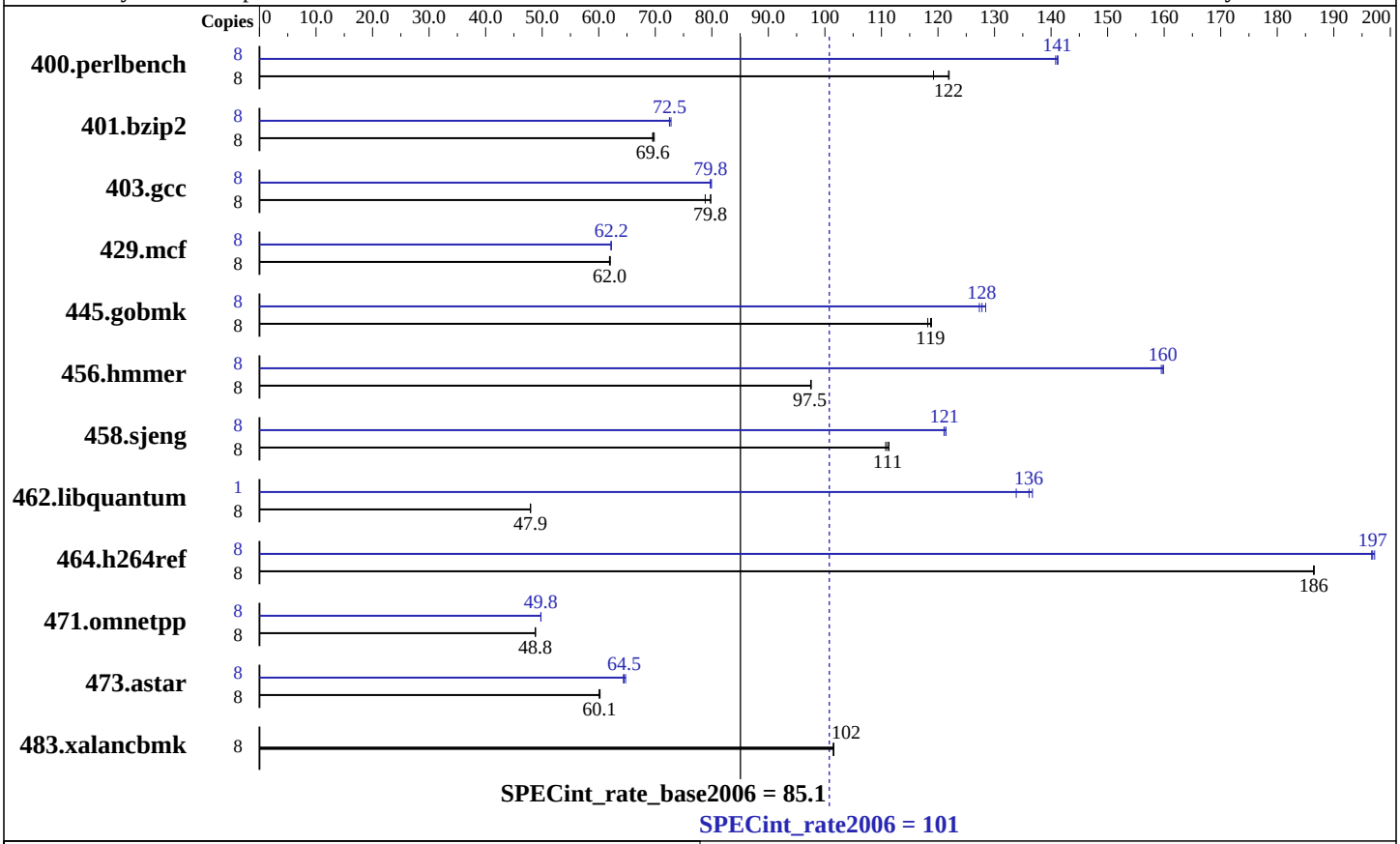
## Supermicro Motherborad X7DB3

SPECint®_rate2006 = 101

SPECint_rate_base2006 = 85.1

**CPU2006 license:** 001176
**Test sponsor:** Supermicro
**Tested by:** Supermicro

**Test date:** Oct-2007
**Hardware Availability:** Nov-2006
**Software Availability:** Nov-2007




### Hardware

| | |
|---|---|
| CPU Name: | Intel Xeon E5345 |
| CPU Characteristics: | Quad Core, 2.33GHz |
| CPU MHz: | 2333 |
| FPU: | Integrated |
| CPU(s) enabled: | 8 cores, 2 chips, 4 cores/chip |
| CPU(s) orderable: | 1, 2 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: | 16 GB (8 * 2 GB PC2-5300 FBDIMM, CL-5-5-5, ECC) |
| Disk Subsystem: | 500 GB SATA, 7200RPM |
| Other Hardware: | None |

### Software

| | |
|---|---|
| Operating System: | 64-Bit Suse Linux Enterprise Server 10 w/ SP1 |
| Compiler: | Intel C++ Compiler for Linux32 and Linux64 version 10.1 Build 20070725 |
| Auto Parallel: | Yes |
| File System: | ReiserFS |
| System State: | Multi-user, run level 3 |
| Base Pointers: | 32-bit |
| Peak Pointers: | 32/64-bit |
| Other Software: | SmartHeap library V8.1 Binutils 2.17.50.0.15 |

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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 | 656 | 119 | **641** | **122** | 641 | 122 | 8 | **554** | **141** | 555 | 141 | 553 | 141 |
| 401.bzip2 | 8 | 1106 | 69.8 | **1109** | **69.6** | 1110 | 69.5 | 8 | 1061 | 72.8 | 1065 | 72.5 | **1064** | **72.5** |
| 403.gcc | 8 | 817 | 78.8 | 807 | 79.8 | **807** | **79.8** | 8 | 808 | 79.7 | **807** | **79.8** | 806 | 79.9 |
| 429.mcf | 8 | **1178** | **62.0** | 1179 | 61.9 | 1176 | 62.0 | 8 | 1173 | 62.2 | **1173** | **62.2** | 1173 | 62.2 |
| 445.gobmk | 8 | 706 | 119 | **707** | **119** | 710 | 118 | 8 | **657** | **128** | 653 | 128 | 659 | 127 |
| 456.hmmer | 8 | 765 | 97.6 | **765** | **97.5** | 766 | 97.5 | 8 | 467 | 160 | **467** | **160** | 468 | 159 |
| 458.sjeng | 8 | **871** | **111** | 869 | 111 | 874 | 111 | 8 | 797 | 121 | 800 | 121 | **799** | **121** |
| 462.libquantum | 8 | 3456 | 48.0 | **3460** | **47.9** | 3460 | 47.9 | 1 | **152** | **136** | 152 | 137 | 155 | 134 |
| 464.h264ref | 8 | **950** | **186** | 950 | 186 | 949 | 187 | 8 | 898 | 197 | 900 | 197 | **899** | **197** |
| 471.omnetpp | 8 | 1024 | 48.8 | **1025** | **48.8** | 1026 | 48.8 | 8 | 1004 | 49.8 | 1005 | 49.8 | **1005** | **49.8** |
| 473.astar | 8 | 932 | 60.2 | **934** | **60.1** | 935 | 60.1 | 8 | 873 | 64.4 | 867 | 64.8 | **871** | **64.5** |
| 483.xalancbmk | 8 | 544 | 101 | 543 | 102 | **544** | **102** | 8 | 544 | 101 | 543 | 102 | **544** | **102** |

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

## General Notes

```
Tested systems can be used with CSE-825TQ-R700LPV case,
To ensure system stability, a 500W (minimum) ATX power supply [4-pin (+12V), 8-pin (+12V) and 24-pin are required]
Product description located as of http://www.supermicro.com/products/motherboard/Xeon1333/5000P/X7DB3.cfm
The system bus runs at 1333 MHz
Bios settings:
Hardware Prefetcher:      Enabled
Adjacent Sector Prefetch: Disabled
All benchmarks compiled in 32-bit mode except 401.bzip2 and 456.hmmer,
for peak, are compiled in 64-bit mode
```

## Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

## Base Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

## Base Optimization Flags

C benchmarks:
```
-fast -inline-calloc -opt-malloc-options=3
```

C++ benchmarks:
```
-xT -ipo -O3 -no-prec-div -Wl,-z,muldefs
-L/home/cmplr/usr3/alrahate/cpu2006.1.0/lib -lsmartheap
```

## Base Other Flags

C benchmarks:

403.gcc: `-Dalloca=_alloca`

## Peak Compiler Invocation

C benchmarks (except as noted below):
```
icc
```

401.bzip2: `/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/bin/icc -L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/lib -I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/include`

456.hmmer: `/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/bin/icc -L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/lib -I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070725/Linux64/include`

C++ benchmarks:
```
icpc
```

## Peak Portability Flags

400.perlbench: `-DSPEC_CPU_LINUX_IA32`
401.bzip2: `-DSPEC_CPU_LP64`
456.hmmer: `-DSPEC_CPU_LP64`
462.libquantum: `-DSPEC_CPU_LINUX`
483.xalancbmk: `-DSPEC_CPU_LINUX`

## Peak Optimization Flags

C benchmarks:

Continued on next page

## Peak Optimization Flags (Continued)

400.perlbench: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-fast -ansi-alias -prefetch`

401.bzip2: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-fast -prefetch`

403.gcc: `-fast -inline-calloc -opt-malloc-options=3`

429.mcf: `-fast -prefetch`

445.gobmk: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-xT -O2 -ipo -no-prec-div -ansi-alias`

456.hmmer: `-fast -unroll2 -ansi-alias -opt-multi-version-aggressive`

458.sjeng: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-fast -unroll4`

462.libquantum: `-fast -unroll4 -Ob0 -prefetch -opt-streaming-stores always -vec-guard-write -opt-malloc-options=3 -parallel -par-runtime-control`

464.h264ref: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-fast -unroll2 -ansi-alias`

C++ benchmarks:

471.omnetpp: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-xT -O3 -ipo -no-prec-div -ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs -L/home/cmplr/usr3/alrahate/cpu2006.1.0/lib -lsmartheap`

473.astar: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-xT -O3 -ipo -no-prec-div -ansi-alias -opt-ra-region-strategy=routine -Wl,-z,muldefs -L/home/cmplr/usr3/alrahate/cpu2006.1.0/lib -lsmartheap`

483.xalancbmk: `basepeak = yes`

## Peak Other Flags

C benchmarks:

403.gcc: `-Dalloca=_alloca`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Intel-ic10-ia32-intel64-linux-flags.20090714.17.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic10-ia32-intel64-linux-flags.20090714.17.xml`



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

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