



# SPEC® CINT2006 Result

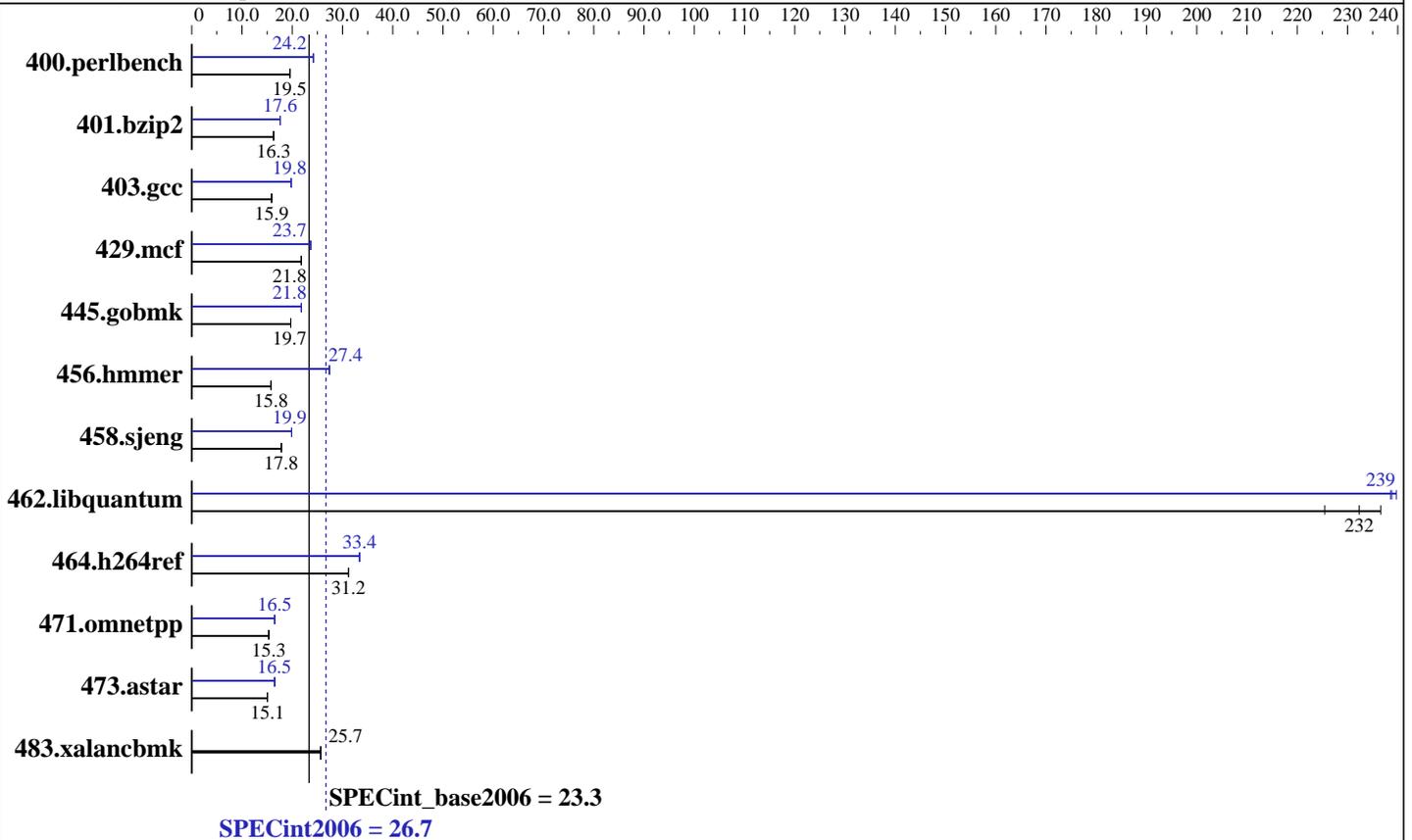
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## Supermicro Motherboard X7DWN+

**SPECint®2006 = 26.7**  
**SPECint\_base2006 = 23.3**

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

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



### Hardware

CPU Name: Intel Xeon E5472  
 CPU Characteristics: Quad Core, 3.00GHz  
 CPU MHz: 3000  
 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: 12 MB I+D on chip per chip, 6 MB shared / 2 cores  
 L3 Cache: None  
 Other Cache: None  
 Memory: 16 GB (16 X 1GB ECC PC2-6400, CL5, FBDIMM)  
 Disk Subsystem: Westren Digital WD5000YS 500GB SATA2, 7200RPM  
 Other Hardware: None

### Software

Operating System: SuSE Linux Enterprise Server 10 (x86\_64) SP1, kernel 2.6.16.46-0.12-default  
 Compiler: Intel C++ Compiler for Linux32 and Linux64 version 10.1 Build 20070824  
 Auto Parallel: Yes  
 File System: ReiserFS  
 System State: Default  
 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					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	498	19.6	<u>501</u>	<u>19.5</u>	501	19.5	<u>404</u>	<u>24.2</u>	405	24.1	403	24.3
401.bzip2	592	16.3	593	16.3	<u>592</u>	<u>16.3</u>	<u>548</u>	<u>17.6</u>	549	17.6	548	17.6
403.gcc	509	15.8	505	16.0	<u>506</u>	<u>15.9</u>	407	19.8	407	19.8	<u>407</u>	<u>19.8</u>
429.mcf	<u>418</u>	<u>21.8</u>	418	21.8	419	21.8	386	23.6	<u>385</u>	<u>23.7</u>	385	23.7
445.gobmk	532	19.7	<u>532</u>	<u>19.7</u>	533	19.7	481	21.8	<u>481</u>	<u>21.8</u>	481	21.8
456.hammer	<u>591</u>	<u>15.8</u>	591	15.8	592	15.8	340	27.4	341	27.4	<u>341</u>	<u>27.4</u>
458.sjeng	677	17.9	680	17.8	<u>679</u>	<u>17.8</u>	<u>608</u>	<u>19.9</u>	609	19.9	608	19.9
462.libquantum	91.9	225	<u>89.2</u>	<u>232</u>	87.6	237	86.8	239	<u>86.8</u>	<u>239</u>	86.4	240
464.h264ref	<u>710</u>	<u>31.2</u>	710	31.2	709	31.2	662	33.4	<u>663</u>	<u>33.4</u>	663	33.4
471.omnetpp	408	15.3	<u>408</u>	<u>15.3</u>	407	15.3	<u>379</u>	<u>16.5</u>	379	16.5	379	16.5
473.astar	<u>466</u>	<u>15.1</u>	465	15.1	467	15.0	424	16.6	<u>426</u>	<u>16.5</u>	427	16.4
483.xalancbmk	<u>269</u>	<u>25.7</u>	269	25.7	269	25.6	<u>269</u>	<u>25.7</u>	269	25.7	269	25.6

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 550W (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/Xeon1333/5400/X7DWN+.cfm>  
The system bus runs at 1600 MHz

## 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



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## Base Optimization Flags

C benchmarks:

-fast -vec-guard-write -parallel -par-runtime-control

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/20070824/Linux64/bin/icc  
-L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070824/Linux64/lib  
-I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070824/Linux64/include

456.hmmer: /home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070824/Linux64/bin/icc  
-L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070824/Linux64/lib  
-I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070824/Linux64/include

C++ benchmarks:

icpc

## Peak Portability Flags

400.perlbenc: -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



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## 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  
-auto-ilp32

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.hmmr: -fast -unroll2 -ansi-alias -opt-multi-version-aggressive  
-auto-ilp32

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

462.libquantum: -fast -unroll14 -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



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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.20090714.02.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.20090714.02.xml>

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For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

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