SPEC® CFP2006 Result

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Supermicro
(Test Sponsor: Intel Corporation)

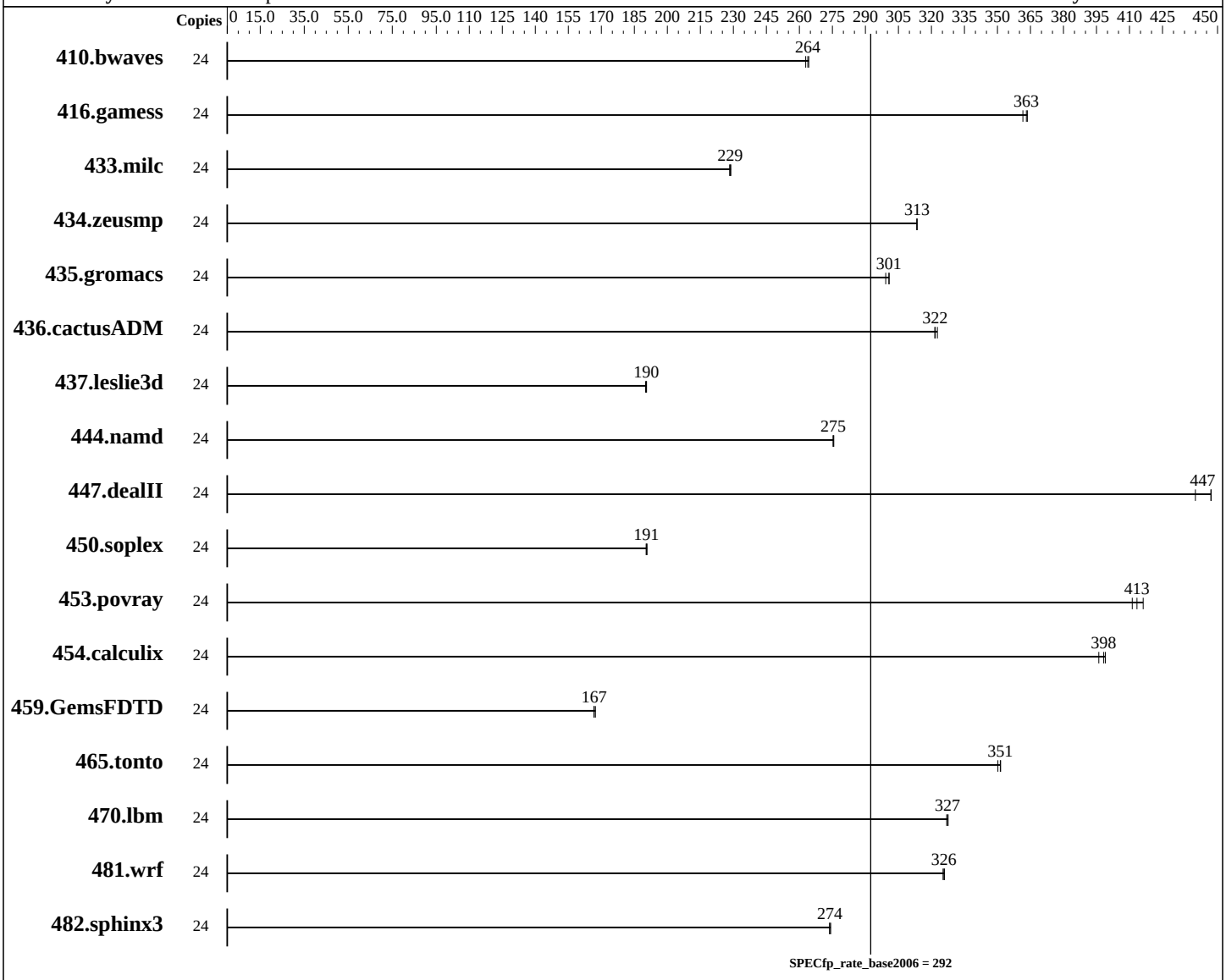
Motherboard H8DGU-F, AMD Opteron 6174

SPECfp®_rate2006 = Not Run

SPECfp_rate_base2006 = 292

CPU2006 license: 13
Test sponsor: Intel Corporation
Tested by: Intel Corporation

Test date: Nov-2010
Hardware Availability: Mar-2010
Software Availability: Nov-2010



Hardware

CPU Name:	AMD Opteron 6174
CPU Characteristics:	
CPU MHz:	2200
FPU:	Integrated
CPU(s) enabled:	24 cores, 2 chips, 12 cores/chip
CPU(s) orderable:	1,2 chips
Primary Cache:	64 KB I + 64 KB D on chip per core
Secondary Cache:	512 KB I+D on chip per core

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Software

Operating System:	64-Bit CentOS release 5.5 (Final) Kernel 2.6.18-194.17.1.el5-default
Compiler:	Intel Composer XE 2011 for Linux Build 20101116 Package ID: l_cproc_p_12.0.1.107, l_cprof_p_12.0.1.107
Auto Parallel:	No
File System:	ext3
System State:	Run level 3 (Full multiuser with network)
Base Pointers:	64-bit

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L3 Cache: 12 MB I+D on chip per chip, 6 MB shared / 6 cores
Other Cache: None
Memory: 64 GB (16 x 4 GB 2Rx4 PC3-10600R-9, ECC)
Disk Subsystem: 1 x 750 GB SATA, 7200 RPM
Other Hardware: None

Peak Pointers: Not Applicable
Other Software: None

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	24	1241	263	1234	264	**1236**	**264**							
416.gamess	24	1300	362	**1294**	**363**	1292	364							
433.milc	24	**964**	**229**	965	228	963	229							
434.zeusmp	24	697	313	697	313	**697**	**313**							
435.gromacs	24	**570**	**301**	573	299	570	301							
436.cactusADM	24	889	323	892	322	**892**	**322**							
437.leslie3d	24	1187	190	1184	191	**1185**	**190**							
444.namd	24	699	275	**699**	**275**	698	276							
447.dealII	24	**614**	**447**	624	440	614	447							
450.soplex	24	**1050**	**191**	1052	190	1049	191							
453.povray	24	**309**	**413**	310	411	307	416							
454.calculix	24	496	399	**497**	**398**	500	396							
459.GemsFDTD	24	**1527**	**167**	1522	167	1528	167							
465.tonto	24	674	350	**672**	**351**	672	351							
470.lbm	24	1007	328	**1008**	**327**	1009	327							
481.wrf	24	823	326	824	325	**823**	**326**							
482.sphinx3	24	1706	274	1709	274	**1708**	**274**							

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.
 numactl was used to bind copies to the cores
```

Operating System Notes

```
'ulimit -s unlimited' was used to set the stack size to unlimited prior to run
```

Platform Notes

```
Fan speed set to Full Speed in BIOS Setup.
As tested, the system used a Supermicro A+ Server 1022G-NTF enclosure.
```

General Notes

Binaries were compiled on CentOS release 5.5 with Binutils 2.17.50.0.6-14.el5

Base Compiler Invocation

C benchmarks:
icc -m64

C++ benchmarks:
icpc -m64

Fortran benchmarks:
ifort -m64

Benchmarks using both Fortran and C:
icc -m64 ifort -m64

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64
416.gamess: -DSPEC_CPU_LP64
433.milc: -DSPEC_CPU_LP64
434.zeusmp: -DSPEC_CPU_LP64
435.gromacs: -DSPEC_CPU_LP64 -nofor_main
436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
437.leslie3d: -DSPEC_CPU_LP64
444.namd: -DSPEC_CPU_LP64
447.dealII: -DSPEC_CPU_LP64
450.soplex: -DSPEC_CPU_LP64
453.povray: -DSPEC_CPU_LP64
454.calculix: -DSPEC_CPU_LP64 -nofor_main
459.GemsFDTD: -DSPEC_CPU_LP64
465.tonto: -DSPEC_CPU_LP64
470.lbm: -DSPEC_CPU_LP64
481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
-msse3 -ipo -O3 -no-prec-div -static -ansi-alias

C++ benchmarks:
-msse3 -ipo -O3 -no-prec-div -static -ansi-alias

Fortran benchmarks:
-msse3 -ipo -O3 -no-prec-div -static

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Base Optimization Flags (Continued)

Benchmarks using both Fortran and C:
`-msse3 -ipo -O3 -no-prec-div -static -ansi-alias`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revE.20101223.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revE.20101223.xml`

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For other inquiries, please contact webmaster@spec.org.

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