



# SPEC® CFP2006 Result

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**IBM Corporation**

**SPECfp®\_rate2006 = Not Run**

**IBM BladeCenter HS21 (Intel Xeon E5420)**

**SPECfp\_rate\_base2006 = 63.3**

**CPU2006 license:** 11

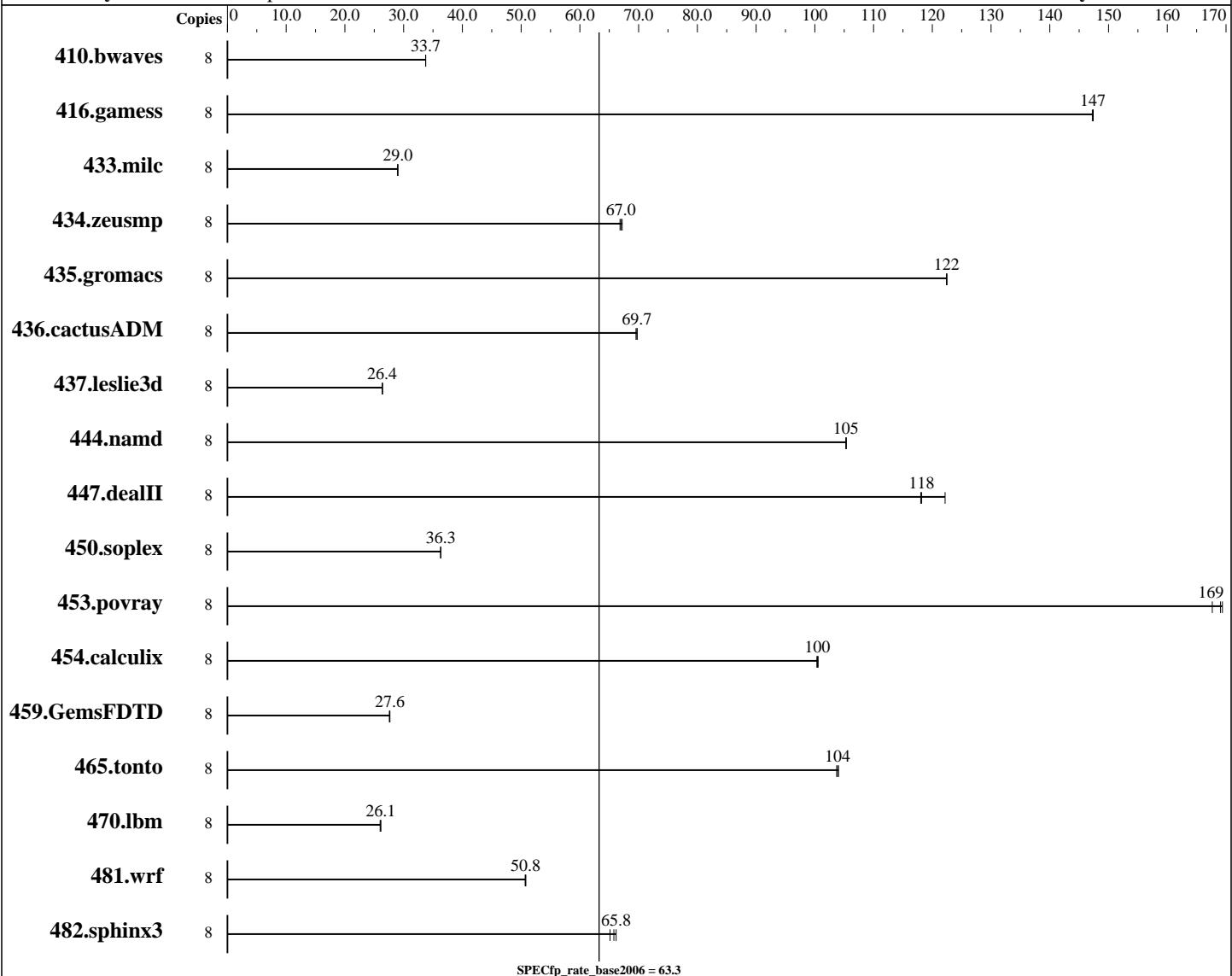
**Test date:** Dec-2007

**Test sponsor:** IBM Corporation

**Hardware Availability:** Jan-2008

**Tested by:** IBM Corporation

**Software Availability:** Nov-2007



## Hardware

CPU Name: Intel Xeon E5420  
CPU Characteristics: 1333MHz system bus  
CPU MHz: 2493  
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

## Software

Operating System: SuSE Linux Enterprise Server 10 (x86\_64), Kernel 2.6.16.21-0.8-smp  
Compiler: Intel C++ and Fortran Compiler 10.1 for Linux Build 20070913 Package ID: 1\_cc\_p\_10.1.008, 1\_fc\_p\_10.1.008  
Auto Parallel: No  
File System: ReiserFS  
System State: Multi-user, run level 3  
Base Pointers: 64-bit

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L3 Cache: None  
 Other Cache: None  
 Memory: 16 GB (8 x 2 GB DDR2-5300F ECC)  
 Disk Subsystem: 1 x 36 GB SAS, 10000 RPM  
 Other Hardware: None

Peak Pointers: Not Applicable  
 Other Software: Binutils 2.17.50.0.15

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	8	<b><u>3222</u></b>	<b><u>33.7</u></b>	3221	33.8	3222	33.7							
416.gamess	8	1064	147	<b><u>1063</u></b>	<b><u>147</u></b>	1063	147							
433.milc	8	<b><u>2533</u></b>	<b><u>29.0</u></b>	2534	29.0	2531	29.0							
434.zeusmp	8	1083	67.2	1089	66.8	<b><u>1087</u></b>	<b><u>67.0</u></b>							
435.gromacs	8	<b><u>467</u></b>	<b><u>122</u></b>	466	122	467	122							
436.cactusADM	8	1370	69.8	1374	69.6	<b><u>1371</u></b>	<b><u>69.7</u></b>							
437.leslie3d	8	<b><u>2852</u></b>	<b><u>26.4</u></b>	2852	26.4	2849	26.4							
444.namd	8	609	105	<b><u>609</u></b>	<b><u>105</u></b>	609	105							
447.dealII	8	749	122	<b><u>774</u></b>	<b><u>118</u></b>	775	118							
450.soplex	8	<b><u>1837</u></b>	<b><u>36.3</u></b>	1838	36.3	1837	36.3							
453.povray	8	254	168	251	169	<b><u>252</u></b>	<b><u>169</u></b>							
454.calculix	8	<b><u>657</u></b>	<b><u>100</u></b>	658	100	656	101							
459.GemsFDTD	8	3079	27.6	3069	27.7	<b><u>3070</u></b>	<b><u>27.6</u></b>							
465.tonto	8	757	104	759	104	<b><u>758</u></b>	<b><u>104</u></b>							
470.lbm	8	<b><u>4214</u></b>	<b><u>26.1</u></b>	4229	26.0	4210	26.1							
481.wrf	8	1763	50.7	<b><u>1760</u></b>	<b><u>50.8</u></b>	1760	50.8							
482.sphinx3	8	2356	66.2	<b><u>2370</u></b>	<b><u>65.8</u></b>	2394	65.1							

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

## General Notes

All benchmarks compiled in 64-bit mode

Hardware Sector Prefetch Disabled and Adjacent Sector Prefetch Disabled  
 taskset utility used to bind CPU(s) to processes

## Base Compiler Invocation

C benchmarks:  
 icc

C++ benchmarks:  
 icpc

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## Base Compiler Invocation (Continued)

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icc ifort

## 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:

-fast

C++ benchmarks:

-fast

Fortran benchmarks:

-fast

Benchmarks using both Fortran and C:

-fast

The flags file that was used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic10.1-FP-intel64-linux-flags.20090714.11.html>

You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/Intel-ic10.1-FP-intel64-linux-flags.20090714.11.xml>



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

Tested with SPEC CPU2006 v1.0.

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