



# SPEC<sup>®</sup> CFP2006 Result

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## IBM Corporation

### SPECfp<sup>®</sup>\_rate2006 = Not Run

### IBM BladeCenter HS21 XM (Intel Xeon E5405)

### SPECfp\_rate\_base2006 = 58.3

CPU2006 license: 11

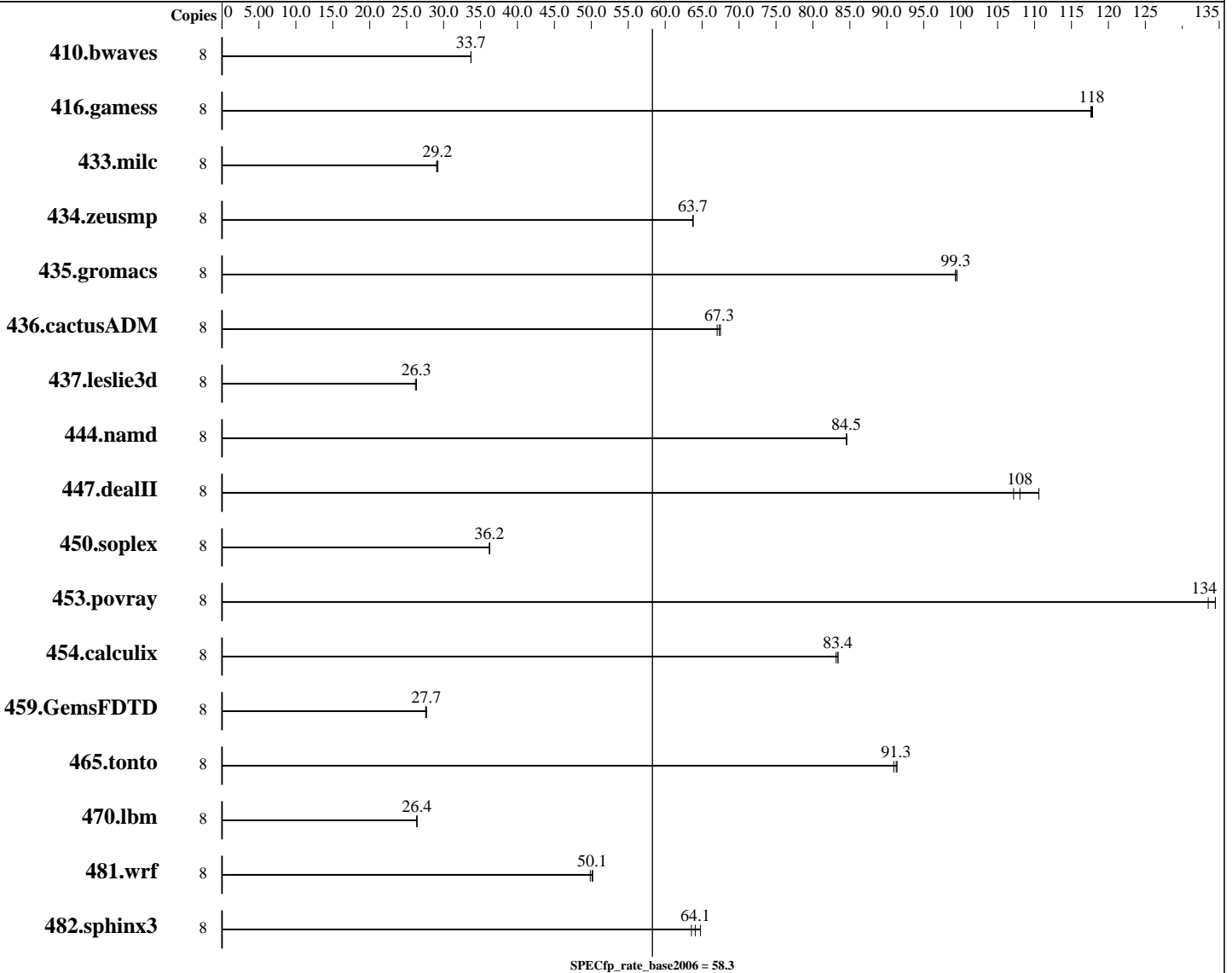
Test sponsor: IBM Corporation

Tested by: IBM Corporation

Test date: Dec-2007

Hardware Availability: Jan-2008

Software Availability: Nov-2007



#### Hardware

CPU Name: Intel Xeon E5405  
 CPU Characteristics: 1333MHz system bus  
 CPU MHz: 1995  
 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

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#### 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: l\_cc\_p\_10.1.008, l\_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	3226	33.7	3225	33.7	<u>3225</u>	<u>33.7</u>							
416.gamess	8	1329	118	<u>1330</u>	<u>118</u>	1332	118							
433.milc	8	2513	29.2	<u>2519</u>	<u>29.2</u>	2528	29.0							
434.zeusmp	8	<u>1142</u>	<u>63.7</u>	1142	63.7	1141	63.8							
435.gromacs	8	575	99.3	<u>575</u>	<u>99.3</u>	574	99.5							
436.cactusADM	8	<u>1420</u>	<u>67.3</u>	1426	67.0	1417	67.5							
437.leslie3d	8	<u>2857</u>	<u>26.3</u>	2872	26.2	2857	26.3							
444.namd	8	<u>759</u>	<u>84.5</u>	759	84.5	759	84.6							
447.dealII	8	854	107	828	111	<u>847</u>	<u>108</u>							
450.soplex	8	1843	36.2	<u>1842</u>	<u>36.2</u>	1841	36.3							
453.povray	8	<u>317</u>	<u>134</u>	319	134	316	134							
454.calculix	8	791	83.4	<u>792</u>	<u>83.4</u>	794	83.1							
459.GemsFDTD	8	3066	27.7	<u>3069</u>	<u>27.7</u>	3078	27.6							
465.tonto	8	<u>862</u>	<u>91.3</u>	861	91.4	866	90.9							
470.lbm	8	4167	26.4	<u>4166</u>	<u>26.4</u>	4165	26.4							
481.wrf	8	1780	50.2	1792	49.9	<u>1783</u>	<u>50.1</u>							
482.sphinx3	8	2453	63.6	<u>2433</u>	<u>64.1</u>	2407	64.8							

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 questions about this result, please contact the tester.  
For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

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