



# SPEC<sup>®</sup> CFP2006 Result

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## IBM Corporation

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

### IBM BladeCenter HS21 XM (Intel Xeon E5440)

### SPECfp\_rate\_base2006 = 66.8

CPU2006 license: 11

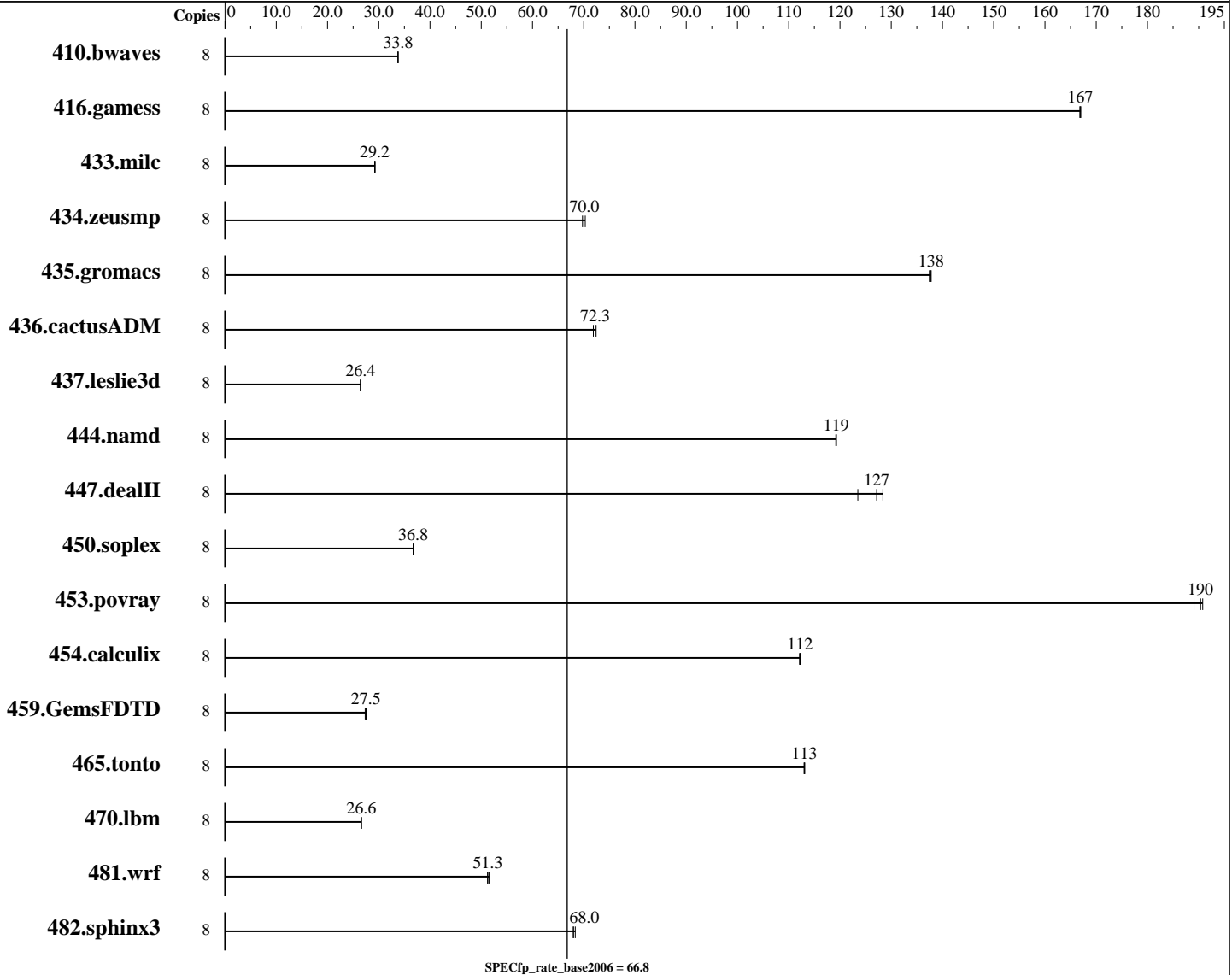
Test date: Dec-2007

Test sponsor: IBM Corporation

Hardware Availability: Jan-2008

Tested by: IBM Corporation

Software Availability: Nov-2007



#### Hardware

CPU Name: Intel Xeon E5440  
 CPU Characteristics: 1333MHz system bus  
 CPU MHz: 2833  
 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	3221	33.8	3220	33.8	<b>3220</b>	<b>33.8</b>							
416.gamess	8	<b>939</b>	<b>167</b>	939	167	938	167							
433.milc	8	2514	29.2	2507	29.3	<b>2513</b>	<b>29.2</b>							
434.zeusmp	8	<b>1040</b>	<b>70.0</b>	1044	69.8	1036	70.3							
435.gromacs	8	416	137	415	138	<b>415</b>	<b>138</b>							
436.cactusADM	8	<b>1323</b>	<b>72.3</b>	1330	71.9	1320	72.4							
437.leslie3d	8	2845	26.4	2842	26.5	<b>2844</b>	<b>26.4</b>							
444.namd	8	538	119	<b>538</b>	<b>119</b>	538	119							
447.dealII	8	741	123	713	128	<b>720</b>	<b>127</b>							
450.soplex	8	1818	36.7	1815	36.8	<b>1815</b>	<b>36.8</b>							
453.povray	8	<b>224</b>	<b>190</b>	225	189	223	191							
454.calculix	8	<b>588</b>	<b>112</b>	588	112	589	112							
459.GemsFDTD	8	3104	27.3	<b>3086</b>	<b>27.5</b>	3083	27.5							
465.tonto	8	696	113	<b>696</b>	<b>113</b>	697	113							
470.lbm	8	<b>4131</b>	<b>26.6</b>	4138	26.6	4131	26.6							
481.wrf	8	<b>1742</b>	<b>51.3</b>	1744	51.2	1733	51.6							
482.sphinx3	8	2294	68.0	2281	68.3	<b>2293</b>	<b>68.0</b>							

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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