



# SPEC<sup>®</sup> CFP2006 Result

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## IBM Corporation

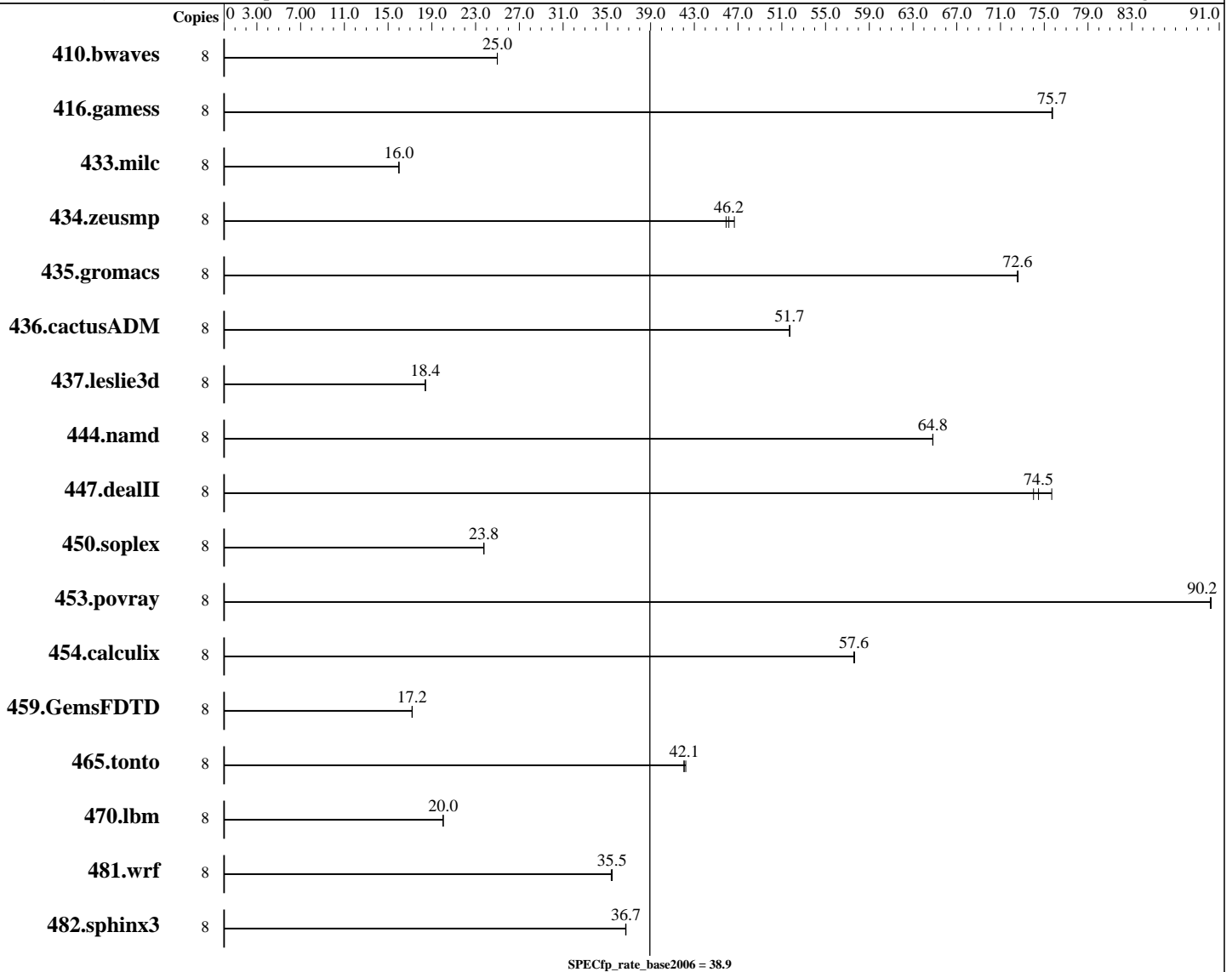
### SPECfp<sup>®</sup>\_rate2006 = Not Run

### IBM BladeCenter HS21 XM (Intel Xeon E5310)

### SPECfp\_rate\_base2006 = 38.9

CPU2006 license: 11  
Test sponsor: IBM Corporation  
Tested by: IBM Corporation

Test date: Jan-2007  
Hardware Availability: Feb-2007  
Software Availability: Aug-2006



#### Hardware

CPU Name: Intel Xeon E5310  
CPU Characteristics: 1066MHz system bus  
CPU MHz: 1600  
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: 8 MB I+D on chip per chip, 4 MB shared / 2 cores

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#### Software

Operating System: Microsoft Windows Server 2003 Enterprise x64 Edition + SP1 (64-bit)  
Compiler: Intel C++ Compiler for IA32 version 9.1 Build no 20060816  
Intel Fortran Compiler for IA32 version 9.1 Build no 20060816  
Microsoft Visual Studio .Net 2003 (for libraries)  
Auto Parallel: No  
File System: NTFS

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L3 Cache: None  
Other Cache: None  
Memory: 16 GB (8 x 2GB DDR2-5300F ECC)  
Disk Subsystem: 1 x 74 GB SAS, 1000 RPM  
Other Hardware: None

System State: Default  
Base Pointers: 32-bit  
Peak Pointers: Not Applicable  
Other Software: Smart Heap Library, Version 8

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	8	4352	25.0	<b><u>4351</u></b>	<b><u>25.0</u></b>	4351	25.0							
416.gamess	8	<b><u>2068</u></b>	<b><u>75.7</u></b>	2069	75.7	2068	75.8							
433.milc	8	4592	16.0	4596	16.0	<b><u>4594</u></b>	<b><u>16.0</u></b>							
434.zeusmp	8	1560	46.7	1586	45.9	<b><u>1577</u></b>	<b><u>46.2</u></b>							
435.gromacs	8	787	72.6	<b><u>787</u></b>	<b><u>72.6</u></b>	787	72.6							
436.cactusADM	8	<b><u>1849</u></b>	<b><u>51.7</u></b>	1849	51.7	1848	51.7							
437.leslie3d	8	<b><u>4086</u></b>	<b><u>18.4</u></b>	4086	18.4	4085	18.4							
444.namd	8	<b><u>990</u></b>	<b><u>64.8</u></b>	990	64.8	990	64.8							
447.dealII	8	1209	75.7	1236	74.0	<b><u>1229</u></b>	<b><u>74.5</u></b>							
450.soplex	8	<b><u>2809</u></b>	<b><u>23.8</u></b>	2809	23.7	2808	23.8							
453.povray	8	471	90.3	<b><u>472</u></b>	<b><u>90.2</u></b>	472	90.2							
454.calculix	8	<b><u>1146</u></b>	<b><u>57.6</u></b>	1146	57.6	1145	57.7							
459.GemsFDTD	8	4939	17.2	4932	17.2	<b><u>4937</u></b>	<b><u>17.2</u></b>							
465.tonto	8	1865	42.2	1872	42.1	<b><u>1871</u></b>	<b><u>42.1</u></b>							
470.lbm	8	<b><u>5487</u></b>	<b><u>20.0</u></b>	5488	20.0	5487	20.0							
481.wrf	8	2524	35.4	2518	35.5	<b><u>2518</u></b>	<b><u>35.5</u></b>							
482.sphinx3	8	<b><u>4244</u></b>	<b><u>36.7</u></b>	4246	36.7	4243	36.7							

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

## Base Compiler Invocation

C benchmarks:  
icl -Qvc7.1 -Qc99

C++ benchmarks:  
icl -Qvc7.1

Fortran benchmarks:  
ifort

Benchmarks using both Fortran and C:  
icl -Qvc7.1 -Qc99 ifort



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## Base Portability Flags

```

436.cactusADM: -Qlowercase /assume:underscore
444.namd: -TP
447.deallI: -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG
           -DBOOST_NO_INTRINSIC_WCHAR_T
453.povray: -DSPEC_CPU_WINDOWS_ICL
454.calculix: -DSPEC_CPU_NOZMODIFIER -Qlowercase
481.wrf: -DSPEC_CPU_WINDOWS_ICL

```

## Base Optimization Flags

```

C benchmarks:
  -fast /F950000000 shlw32m.lib          -link /FORCE:MULTIPLE

C++ benchmarks:
  -fast -Qcxx_features /F950000000 shlw32m.lib
  -link /FORCE:MULTIPLE

Fortran benchmarks:
  -fast /F950000000          -link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:
  -fast /F950000000          -link /FORCE:MULTIPLE

```

The flags file that was used to format this result can be browsed at <http://www.spec.org/cpu2006/flags/Intel-ic91-flags.20090714.html>

You can also download the XML flags source by saving the following link: <http://www.spec.org/cpu2006/flags/Intel-ic91-flags.20090714.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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