



# SPEC® CFP2006 Result

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**IBM Corporation**

**SPECfp®\_rate2006 = Not Run**

IBM BladeCenter HS21 XM (Intel Xeon 5110)

**SPECfp\_rate\_base2006 = 27.2**

**CPU2006 license:** 11

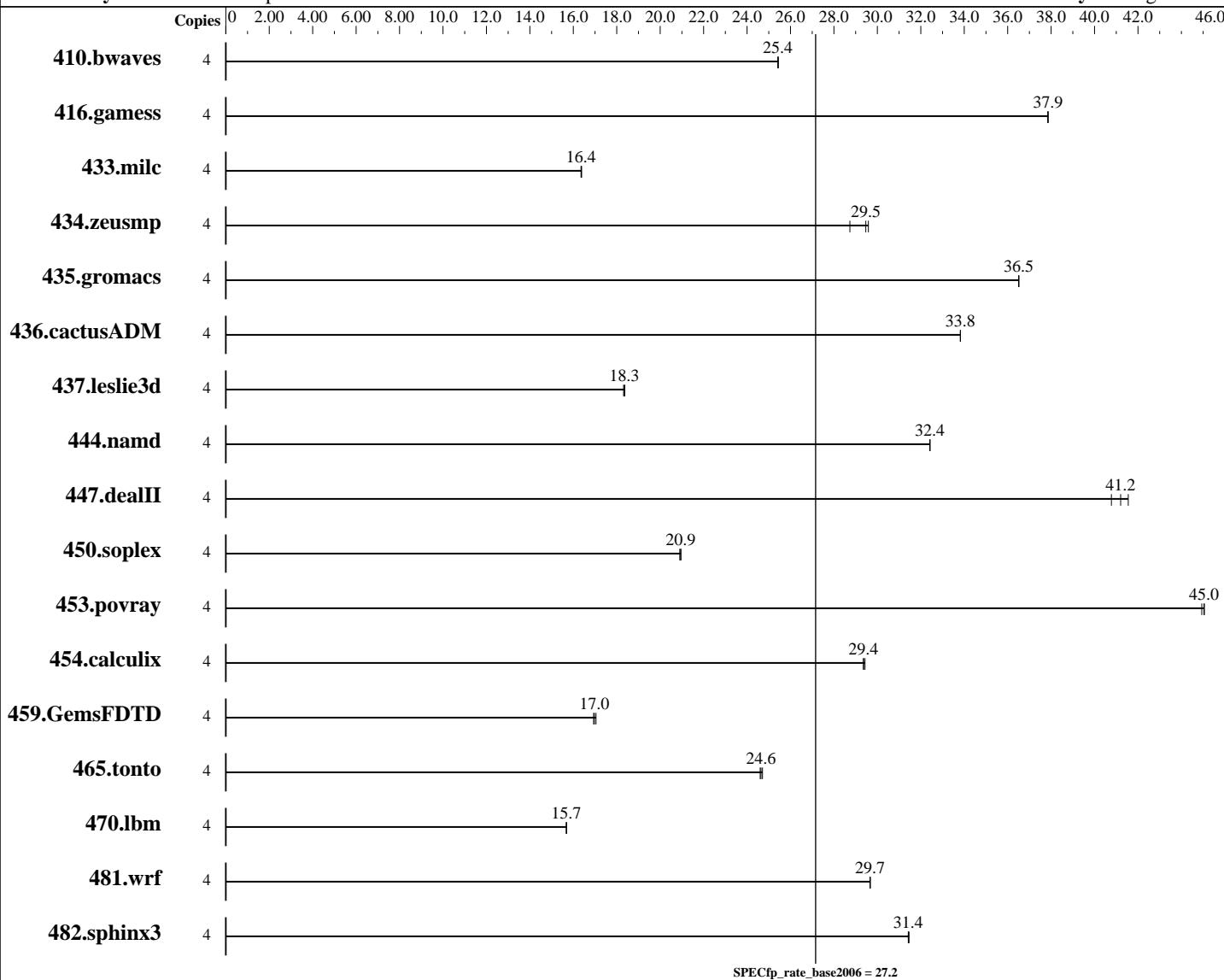
**Test date:** Jan-2007

**Test sponsor:** IBM Corporation

**Hardware Availability:** Feb-2007

**Tested by:** IBM Corporation

**Software Availability:** Aug-2006



## Hardware

CPU Name: Intel Xeon 5110  
 CPU Characteristics: 1066MHz system bus  
 CPU MHz: 1600  
 FPU: Integrated  
 CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip  
 CPU(s) orderable: 1 chip  
 Primary Cache: 32 KB I + 32 KB D on chip per core  
 Secondary Cache: 4 MB I+D on chip per chip

## 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	4	<b><u>2139</u></b>	<b><u>25.4</u></b>	2137	25.4	2139	25.4							
416.gamess	4	2069	37.9	2069	37.9	<b><u>2069</u></b>	<b><u>37.9</u></b>							
433.milc	4	2241	16.4	2245	16.4	<b><u>2244</u></b>	<b><u>16.4</u></b>							
434.zeusmp	4	1267	28.7	1230	29.6	<b><u>1235</u></b>	<b><u>29.5</u></b>							
435.gromacs	4	<b><u>782</u></b>	<b><u>36.5</u></b>	782	36.5	782	36.5							
436.cactusADM	4	<b><u>1413</u></b>	<b><u>33.8</u></b>	1413	33.8	1413	33.8							
437.leslie3d	4	2047	18.4	2053	18.3	<b><u>2049</u></b>	<b><u>18.3</u></b>							
444.namd	4	990	32.4	990	32.4	<b><u>990</u></b>	<b><u>32.4</u></b>							
447.dealII	4	1101	41.6	<b><u>1111</u></b>	<b><u>41.2</u></b>	1122	40.8							
450.soplex	4	1592	21.0	1596	20.9	<b><u>1593</u></b>	<b><u>20.9</u></b>							
453.povray	4	472	45.1	<b><u>472</u></b>	<b><u>45.0</u></b>	474	44.9							
454.calculix	4	1124	29.4	<b><u>1124</u></b>	<b><u>29.4</u></b>	1121	29.4							
459.GemsFDTD	4	<b><u>2500</u></b>	<b><u>17.0</u></b>	2490	17.0	2506	16.9							
465.tonto	4	1600	24.6	1593	24.7	<b><u>1597</u></b>	<b><u>24.6</u></b>							
470.lbm	4	3504	15.7	3505	15.7	<b><u>3505</u></b>	<b><u>15.7</u></b>							
481.wrf	4	1506	29.7	1506	29.7	<b><u>1506</u></b>	<b><u>29.7</u></b>							
482.sphinx3	4	<b><u>2481</u></b>	<b><u>31.4</u></b>	2481	31.4	2478	31.5							

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

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