# SPEC® CFP2006 Result



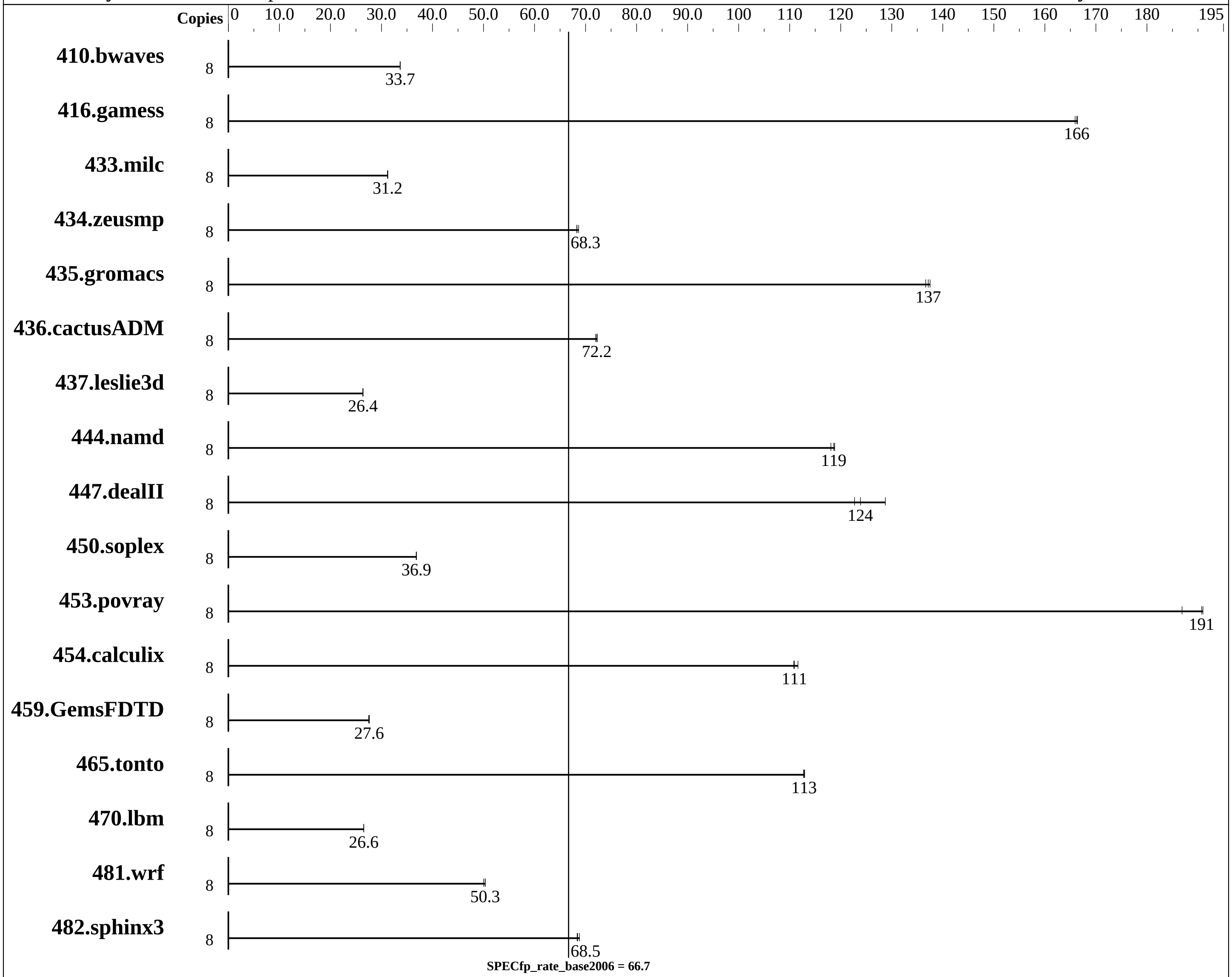
## IBM Corporation

**SPECfp®_rate2006 = Not Run**

## IBM System x3550 (Intel Xeon E5440)

**SPECfp_rate_base2006 = 66.7**

**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 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, 15000 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 | **3229** | **33.7** | 3231 | 33.6 | 3228 | 33.7 | | | | | | | |
| 416.gamess | 8 | 944 | 166 | **942** | **166** | 941 | 166 | | | | | | | |
| 433.milc | 8 | 2355 | 31.2 | 2349 | 31.3 | **2354** | **31.2** | | | | | | | |
| 434.zeusmp | 8 | **1065** | **68.3** | 1066 | 68.3 | 1060 | 68.7 | | | | | | | |
| 435.gromacs | 8 | 415 | 138 | **416** | **137** | 418 | 137 | | | | | | | |
| 436.cactusADM | 8 | 1329 | 71.9 | **1324** | **72.2** | 1322 | 72.3 | | | | | | | |
| 437.leslie3d | 8 | **2852** | **26.4** | 2847 | 26.4 | 2854 | 26.3 | | | | | | | |
| 444.namd | 8 | **541** | **119** | 540 | 119 | 543 | 118 | | | | | | | |
| 447.dealII | 8 | **739** | **124** | 746 | 123 | 711 | 129 | | | | | | | |
| 450.soplex | 8 | **1810** | **36.9** | 1813 | 36.8 | 1810 | 36.9 | | | | | | | |
| 453.povray | 8 | 223 | 191 | **223** | **191** | 228 | 187 | | | | | | | |
| 454.calculix | 8 | 596 | 111 | 591 | 112 | **595** | **111** | | | | | | | |
| 459.GemsFDTD | 8 | 3072 | 27.6 | **3075** | **27.6** | 3087 | 27.5 | | | | | | | |
| 465.tonto | 8 | 697 | 113 | **698** | **113** | 698 | 113 | | | | | | | |
| 470.lbm | 8 | 4139 | 26.6 | 4142 | 26.5 | **4140** | **26.6** | | | | | | | |
| 481.wrf | 8 | **1776** | **50.3** | 1786 | 50.0 | 1775 | 50.4 | | | | | | | |
| 482.sphinx3 | 8 | 2266 | 68.8 | **2278** | **68.5** | 2281 | 68.3 | | | | | | | |

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
Powersaved dameon was disabled in OS
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

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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