SPEC® CFP2006 Result

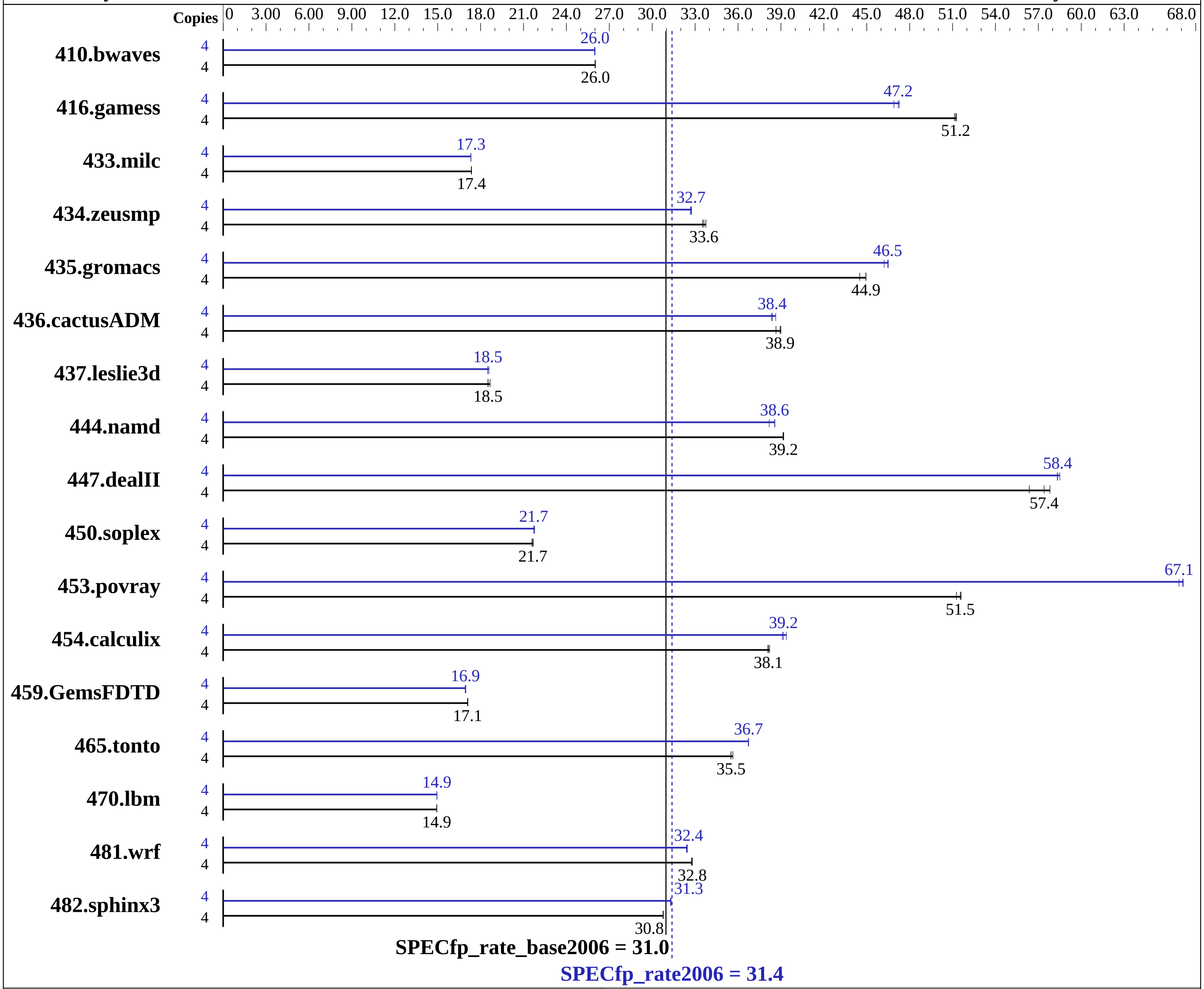
Bull SAS

NovaScale R440
(Intel Xeon processor 5120,1.86GHz)

SPECfp®_rate2006 = 31.4

SPECfp_rate_base2006 = 31.0

CPU2006 license:	20	**Test date:**	May-2007
Test sponsor:	Bull SAS	**Hardware Availability:**	Mar-2007
Tested by:	Bull SAS	**Software Availability:**	Dec-2006



Hardware	
CPU Name:	Intel Xeon 5120
CPU Characteristics:	1.86 GHz, 4 MB L2, 1066 MHz system bus
CPU MHz:	1866
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1 to 2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	4 MB I+D on chip per chip

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Software	
Operating System:	SuSE Linux Enterprise Server 10 (EM64T) kernel 2.6.16.21-0.8-smp
Compiler:	Intel C++ Compiler for Intel EM64T-based applications, Version 9.1 Package ID l_cc_c_9.1.045 Build no 20061101 Intel Fortran Compiler for Intel EM64T-based applications, Version 9.1 Package ID l_fc_c_9.1.040 Build no 20061101
Auto Parallel:	No

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L3 Cache:	None
Other Cache:	None
Memory:	24 GB (12x2 GB) FB-DIMM PC2-5300F ECC CL5
Disk Subsystem:	1x73 GB SAS, 15000 RPM
Other Hardware:	None

File System:	ext2
System State:	Multi-user run level 3
Base Pointers:	64-bit
Peak Pointers:	32/64-bit
Other Software:	None

Results Table

	Base							Peak						
Benchmark	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	4	**2089**	**26.0**	2089	26.0	2091	26.0	4	2090	26.0	2094	26.0	**2091**	**26.0**
416.gamess	4	**1529**	**51.2**	1532	51.1	1528	51.3	4	**1659**	**47.2**	1657	47.3	1670	46.9
433.milc	4	2114	17.4	2115	17.4	**2115**	**17.4**	4	**2120**	**17.3**	2120	17.3	2121	17.3
434.zeusmp	4	1086	33.5	1078	33.8	**1083**	**33.6**	4	1111	32.8	**1113**	**32.7**	1114	32.7
435.gromacs	4	**635**	**44.9**	635	44.9	642	44.5	4	618	46.2	614	46.5	**615**	**46.5**
436.cactusADM	4	1226	39.0	**1227**	**38.9**	1237	38.7	4	1246	38.4	**1245**	**38.4**	1237	38.6
437.leslie3d	4	2015	18.7	**2030**	**18.5**	2031	18.5	4	2032	18.5	2023	18.6	**2032**	**18.5**
444.namd	4	**819**	**39.2**	819	39.1	819	39.2	4	840	38.2	**832**	**38.6**	832	38.6
447.dealII	4	812	56.4	**797**	**57.4**	792	57.8	4	785	58.3	782	58.5	**784**	**58.4**
450.soplex	4	1546	21.6	1539	21.7	**1540**	**21.7**	4	**1536**	**21.7**	1532	21.8	1537	21.7
453.povray	4	412	51.6	415	51.3	**413**	**51.5**	4	317	67.1	**317**	**67.1**	318	66.8
454.calculix	4	864	38.2	866	38.1	**866**	**38.1**	4	838	39.4	**842**	**39.2**	844	39.1
459.GemsFDTD	4	2480	17.1	**2483**	**17.1**	2484	17.1	4	2507	16.9	2501	17.0	**2506**	**16.9**
465.tonto	4	1104	35.6	1108	35.5	**1108**	**35.5**	4	**1071**	**36.7**	1071	36.7	1072	36.7
470.lbm	4	**3680**	**14.9**	3681	14.9	3680	14.9	4	3679	14.9	3678	14.9	**3678**	**14.9**
481.wrf	4	1362	32.8	1364	32.7	**1362**	**32.8**	4	1379	32.4	1377	32.5	**1378**	**32.4**
482.sphinx3	4	2535	30.8	**2533**	**30.8**	2533	30.8	4	2489	31.3	**2491**	**31.3**	2492	31.3

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

Operating System Notes

```
Environment stack size set to 'unlimited'
'/usr/bin/taskset' used to bind processes to CPUs
```

General Notes

```
The NovaScale R440 and the NovaScale R460 models are
electronically equivalent.
The results have been measured on a NovaScale R460 model.
```

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Software Availability: Dec-2006

Base Compiler Invocation

C benchmarks:
`icc`

C++ benchmarks:
`icpc`

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`

Peak Compiler Invocation

C benchmarks:
`icc`

C++ benchmarks:
`icpc`

Fortran benchmarks:
`ifort`

Benchmarks using both Fortran and C:
`icc ifort`

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:
`-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast` `-auto_ilp32`

C++ benchmarks:
`-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast` `-auto_ilp32`

Fortran benchmarks:
`-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast`

Benchmarks using both Fortran and C:
`-prof_gen`(pass 1) `-prof_use`(pass 2) `-fast` `-auto_ilp32`

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/EM64T_Intel91_flags.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/EM64T_Intel91_flags.xml

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

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