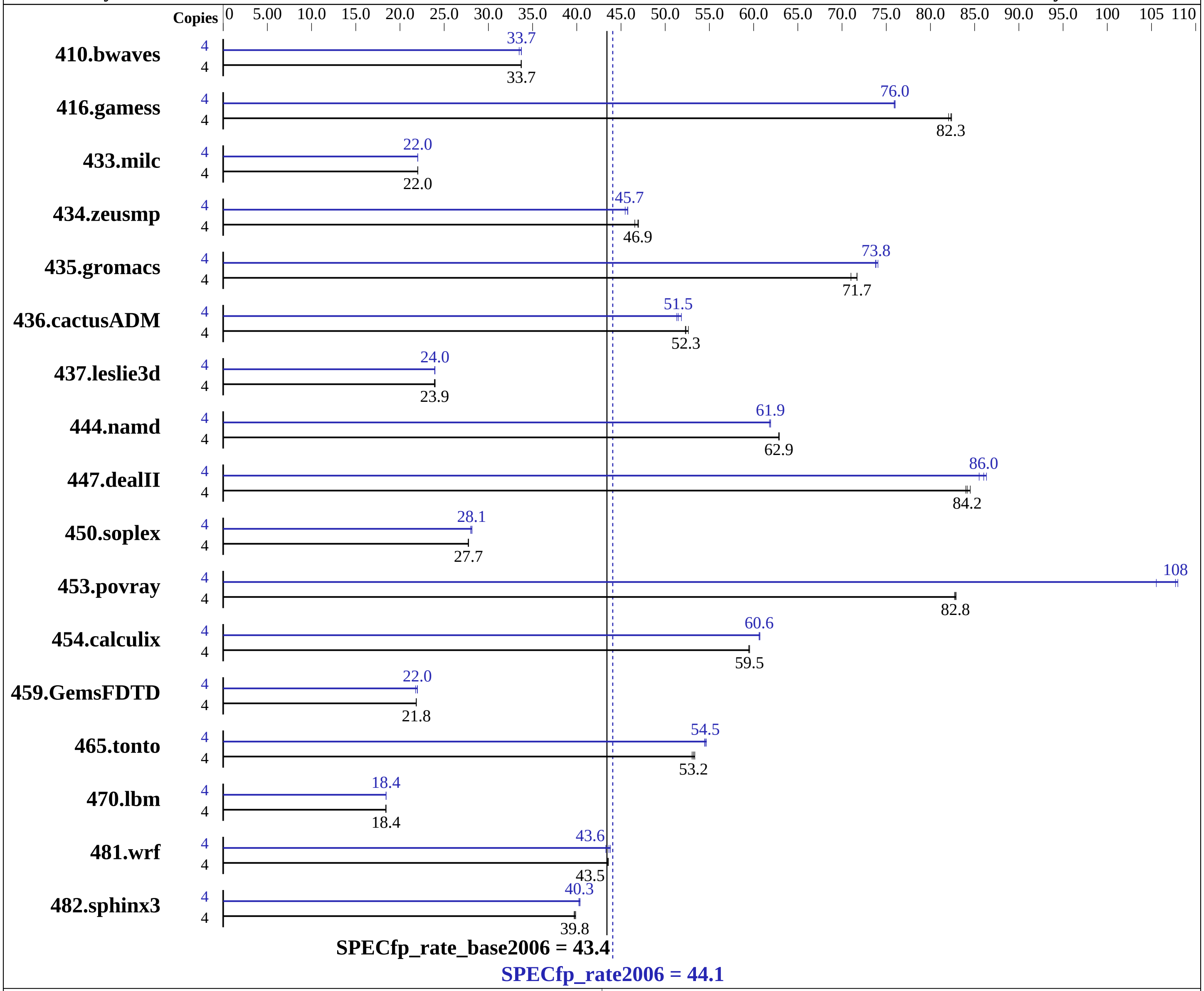
Bull SAS

NovaScale R460
(Intel Xeon processor 5160,3.00GHz)

SPECfp®_rate2006 = 44.1

SPECfp_rate_base2006 = 43.4

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 5160
CPU Characteristics:	3.00 GHz, 4 MB L2, 1333 MHz system bus
CPU MHz:	3000
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

Continued on next page

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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SPEC CFP2006 Result

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L3 Cache:	None	File System:	ext2
Other Cache:	None	System State:	Multi-user run level 3
Memory:	24 GB (12x2 GB) FB-DIMM PC2-5300F ECC CL5	Base Pointers:	64-bit
Disk Subsystem:	1x73 GB SAS, 15000 RPM	Peak Pointers:	32/64-bit
Other Hardware:	None	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	1611	33.7	**1612**	**33.7**	1614	33.7	4	1612	33.7	**1612**	**33.7**	1624	33.5
416.gamess	4	**952**	**82.3**	951	82.4	955	82.0	4	**1031**	**76.0**	1032	75.9	1030	76.0
433.milc	4	**1669**	**22.0**	1669	22.0	1668	22.0	4	1669	22.0	1669	22.0	**1669**	**22.0**
434.zeusmp	4	**776**	**46.9**	782	46.6	775	47.0	4	801	45.5	795	45.8	**796**	**45.7**
435.gromacs	4	398	71.7	**398**	**71.7**	402	71.0	4	386	74.1	**387**	**73.8**	387	73.8
436.cactusADM	4	**913**	**52.3**	908	52.6	914	52.3	4	932	51.3	**929**	**51.5**	922	51.8
437.leslie3d	4	1568	24.0	**1572**	**23.9**	1574	23.9	4	1572	23.9	**1570**	**24.0**	1569	24.0
444.namd	4	510	62.9	**510**	**62.9**	511	62.8	4	**518**	**61.9**	518	61.9	519	61.8
447.dealII	4	545	84.0	542	84.5	**544**	**84.2**	4	530	86.3	**532**	**86.0**	535	85.5
450.soplex	4	1201	27.8	1204	27.7	**1202**	**27.7**	4	**1187**	**28.1**	1192	28.0	1185	28.1
453.povray	4	257	82.9	**257**	**82.8**	257	82.7	4	202	106	197	108	**198**	**108**
454.calculix	4	554	59.5	555	59.4	**554**	**59.5**	4	544	60.7	**544**	**60.6**	544	60.6
459.GemsFDTD	4	**1943**	**21.8**	1944	21.8	1941	21.9	4	**1932**	**22.0**	1931	22.0	1949	21.8
465.tonto	4	738	53.3	742	53.0	**740**	**53.2**	4	**722**	**54.5**	720	54.7	723	54.5
470.lbm	4	**2983**	**18.4**	2990	18.4	2981	18.4	4	2983	18.4	2984	18.4	**2983**	**18.4**
481.wrf	4	1027	43.5	1025	43.6	**1027**	**43.5**	4	**1024**	**43.6**	1032	43.3	1020	43.8
482.sphinx3	4	1964	39.7	**1960**	**39.8**	1955	39.9	4	1931	40.4	**1935**	**40.3**	1937	40.2

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.
```

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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