SPEC® CFP2006 Result

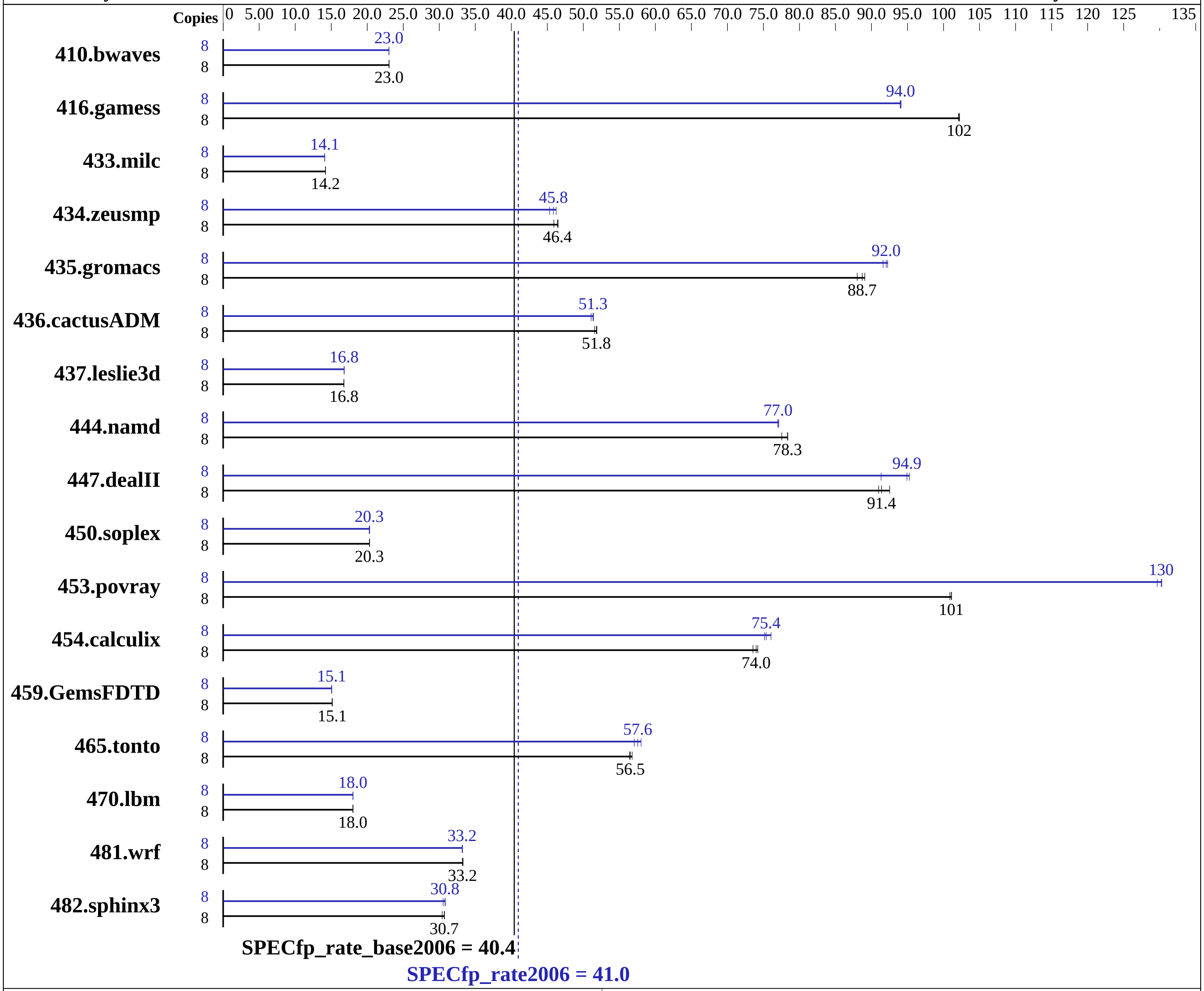
Bull SAS

NovaScale R440
(Intel Xeon processor E5320,1.86GHz)

SPECfp®_rate2006 = 41.0

SPECfp_rate_base2006 = 40.4

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



Hardware

CPU Name:	Intel Xeon E5320
CPU Characteristics:	1.86 GHz, 8 MB L2, 1066 MHz system bus
CPU MHz:	1860
FPU:	Integrated
CPU(s) enabled:	8 cores, 2 chips, 4 cores/chip
CPU(s) orderable:	1 to 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:	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:	12 GB (12x1 GB) FB-DIMM PC2-5300F ECC CL5
Disk Subsystem:	1x73 GB SAS, 10000 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	8	4724	23.0	**4723**	**23.0**	4722	23.0	8	4726	23.0	**4724**	**23.0**	4724	23.0
416.gamess	8	1535	102	1532	102	**1533**	**102**	8	1664	94.1	1667	94.0	**1666**	**94.0**
433.milc	8	5177	14.2	**5175**	**14.2**	5174	14.2	8	5206	14.1	**5204**	**14.1**	5204	14.1
434.zeusmp	8	**1569**	**46.4**	1566	46.5	1586	45.9	8	1606	45.3	**1588**	**45.8**	1575	46.2
435.gromacs	8	**644**	**88.7**	649	88.0	641	89.1	8	619	92.2	**621**	**92.0**	624	91.6
436.cactusADM	8	1843	51.9	**1845**	**51.8**	1854	51.6	8	1872	51.1	1860	51.4	**1862**	**51.3**
437.leslie3d	8	**4484**	**16.8**	4485	16.8	4483	16.8	8	4482	16.8	**4477**	**16.8**	4476	16.8
444.namd	8	819	78.4	827	77.5	**819**	**78.3**	8	832	77.1	**833**	**77.0**	833	77.0
447.dealII	8	989	92.5	1006	91.0	**1001**	**91.4**	8	961	95.3	1002	91.3	**964**	**94.9**
450.soplex	8	3287	20.3	3283	20.3	**3285**	**20.3**	8	**3289**	**20.3**	3289	20.3	3280	20.3
453.povray	8	421	101	**421**	**101**	422	101	8	**327**	**130**	328	130	327	130
454.calculix	8	897	73.5	889	74.2	**892**	**74.0**	8	**876**	**75.4**	878	75.1	868	76.1
459.GemsFDTD	8	5610	15.1	5597	15.2	**5604**	**15.1**	8	5646	15.0	**5633**	**15.1**	5632	15.1
465.tonto	8	1396	56.4	**1393**	**56.5**	1387	56.8	8	1357	58.0	1379	57.1	**1368**	**57.6**
470.lbm	8	6106	18.0	**6101**	**18.0**	6101	18.0	8	6100	18.0	6101	18.0	**6101**	**18.0**
481.wrf	8	**2689**	**33.2**	2690	33.2	2683	33.3	8	2689	33.2	2694	33.2	**2694**	**33.2**
482.sphinx3	8	5128	30.4	**5081**	**30.7**	5075	30.7	8	5106	30.5	**5065**	**30.8**	5056	30.8

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'
```

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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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`

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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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