SPEC® CFP2006 Result

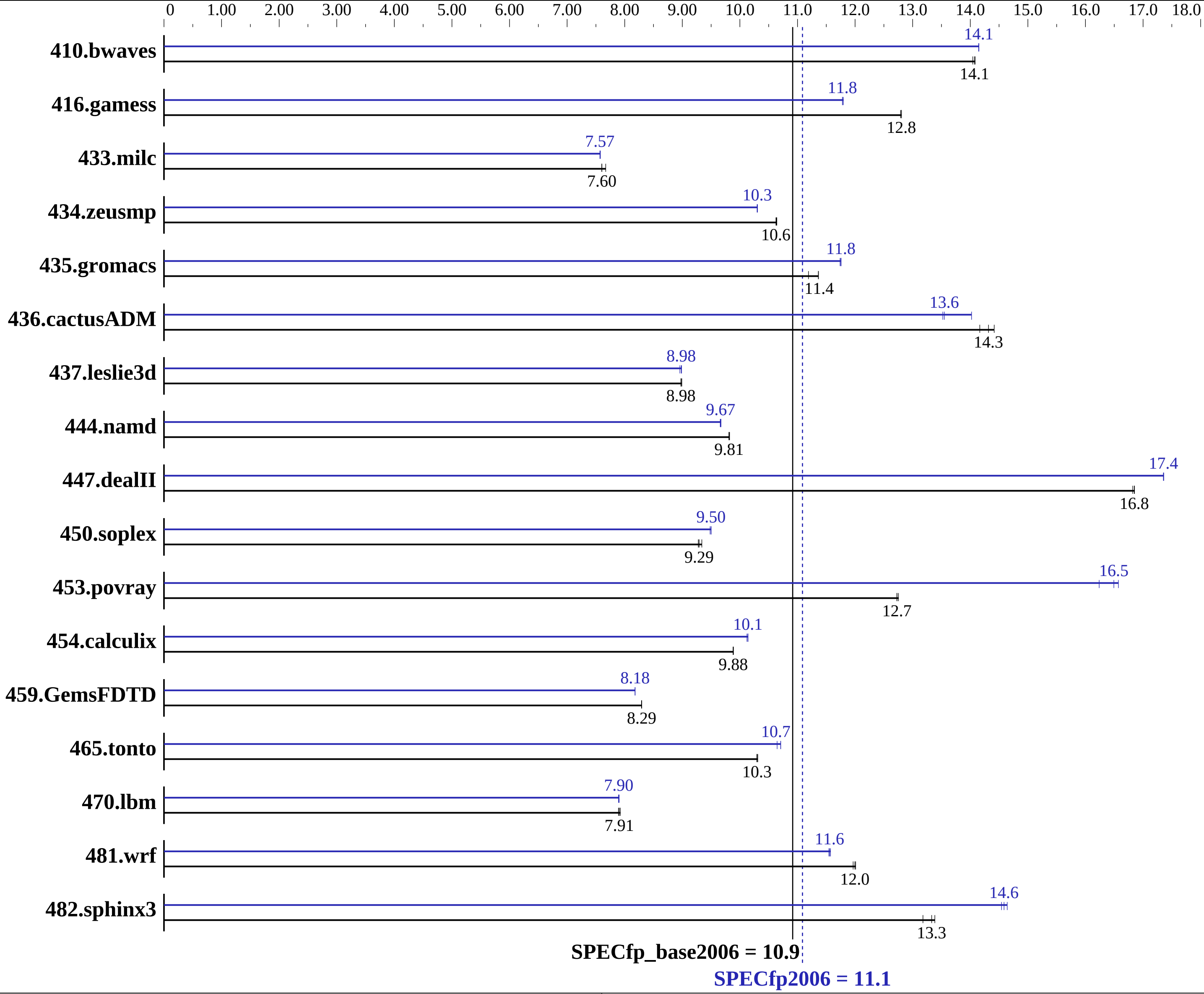
Bull SAS

NovaScale R460
(Intel Xeon processor E5320,1.86GHz)

SPECfp®2006 = 11.1

SPECfp_base2006 = 10.9

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:	1 core, 1 chip, 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	File System:	ext2
Other Cache:	None	System State:	Multi-user run level 3
Memory:	12 GB (12x1 GB) FB-DIMM PC2-5300F ECC CL5	Base Pointers:	64-bit
Disk Subsystem:	1x73 GB SAS, 10000 RPM	Peak Pointers:	32/64-bit
Other Hardware:	None	Other Software:	None

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	**966**	**14.1**	965	14.1	968	14.0	**961**	**14.1**	960	14.1	961	14.1
416.gamess	**1529**	**12.8**	1529	12.8	1531	12.8	1660	11.8	**1662**	**11.8**	1662	11.8
433.milc	1197	7.67	**1207**	**7.60**	1207	7.60	1212	7.58	1213	7.57	**1213**	**7.57**
434.zeusmp	855	10.6	856	10.6	**856**	**10.6**	884	10.3	**883**	**10.3**	883	10.3
435.gromacs	**628**	**11.4**	628	11.4	638	11.2	**608**	**11.8**	607	11.8	608	11.7
436.cactusADM	844	14.2	829	14.4	**835**	**14.3**	852	14.0	**882**	**13.6**	884	13.5
437.leslie3d	1045	8.99	**1047**	**8.98**	1047	8.98	1046	8.99	**1047**	**8.98**	1049	8.96
444.namd	818	9.81	**817**	**9.81**	817	9.82	**830**	**9.67**	829	9.67	830	9.66
447.dealII	**679**	**16.8**	680	16.8	679	16.9	**659**	**17.4**	659	17.4	659	17.4
450.soplex	893	9.34	**897**	**9.29**	899	9.28	878	9.50	**878**	**9.50**	879	9.48
453.povray	**418**	**12.7**	418	12.7	417	12.8	328	16.2	**323**	**16.5**	321	16.6
454.calculix	834	9.89	**835**	**9.88**	835	9.88	815	10.1	814	10.1	**814**	**10.1**
459.GemsFDTD	**1279**	**8.29**	1280	8.29	1279	8.30	1297	8.18	**1297**	**8.18**	1297	8.18
465.tonto	954	10.3	**956**	**10.3**	956	10.3	919	10.7	**919**	**10.7**	924	10.6
470.lbm	1734	7.92	**1738**	**7.91**	1741	7.89	1738	7.90	**1740**	**7.90**	1741	7.89
481.wrf	**931**	**12.0**	930	12.0	933	12.0	965	11.6	**966**	**11.6**	967	11.5
482.sphinx3	1456	13.4	1479	13.2	**1462**	**13.3**	1331	14.6	1340	14.5	**1336**	**14.6**

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
System was booted uniprocessor by setting "maxcpus=0"
kernel parameter in menu.lst
```

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`

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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