SPEC® CFP2006 Result

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Bull SAS

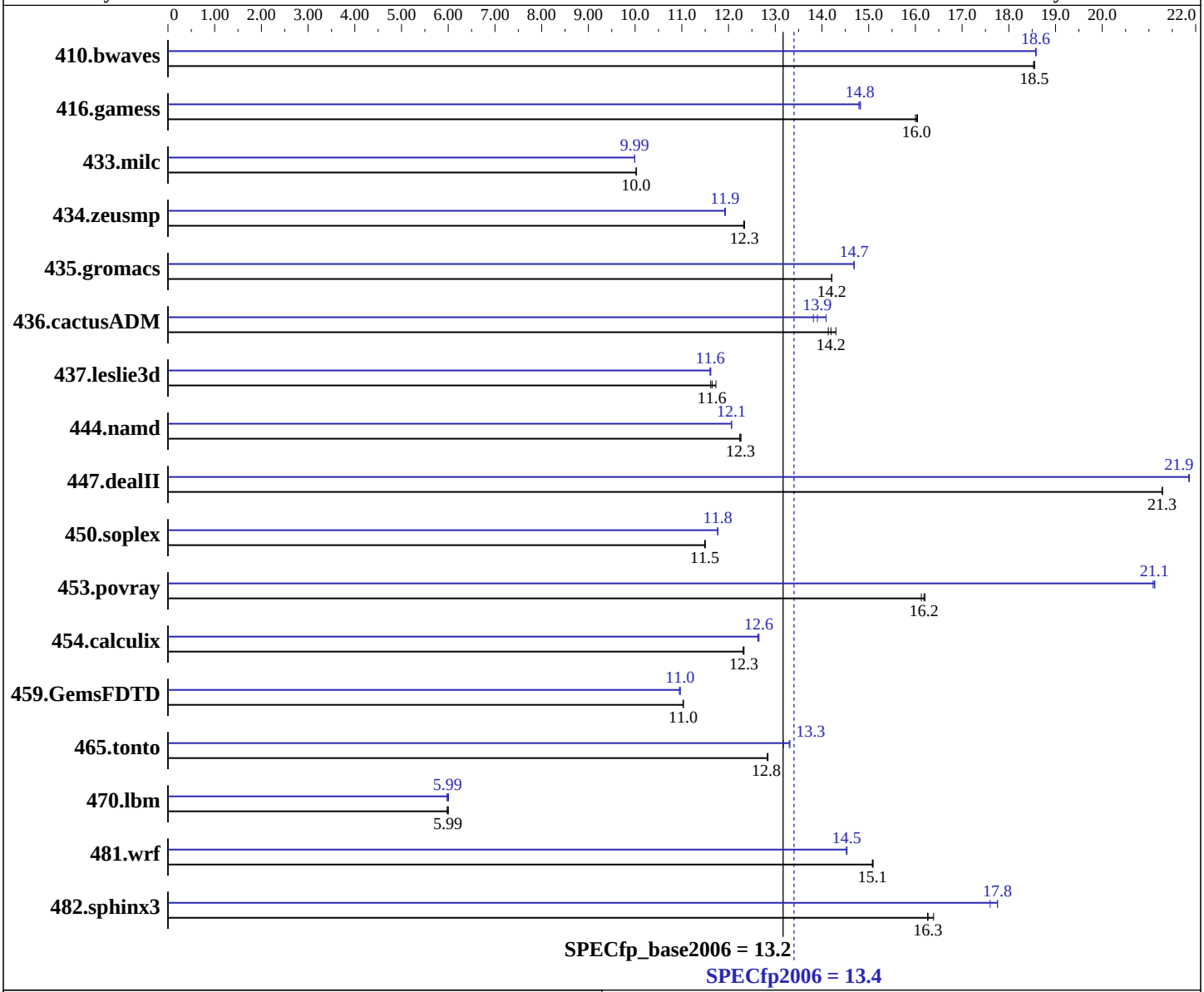
NovaScale R440
(Intel Xeon processor 5140,2.33GHz)

SPECfp®2006 = 13.4

SPECfp_base2006 = 13.2

CPU2006 license: 20
Test sponsor: Bull SAS
Tested by: Bull SAS

Test date: May-2007
Hardware Availability: Mar-2007
Software Availability: Dec-2006



Hardware

CPU Name:	Intel Xeon 5140
CPU Characteristics:	2.33 GHz, 4 MB L2, 1333 MHz system bus
CPU MHz:	2333
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 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

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	**733**	**18.5**	733	18.6	733	18.5	732	18.6	731	18.6	**732**	**18.6**
416.gamess	**1222**	**16.0**	1224	16.0	1220	16.0	1321	14.8	1324	14.8	**1322**	**14.8**
433.milc	916	10.0	916	10.0	**916**	**10.0**	919	9.99	919	9.99	**919**	**9.99**
434.zeusmp	**737**	**12.3**	737	12.3	738	12.3	762	11.9	763	11.9	**763**	**11.9**
435.gromacs	503	14.2	502	14.2	**502**	**14.2**	**486**	**14.7**	486	14.7	486	14.7
436.cactusADM	**842**	**14.2**	836	14.3	845	14.1	865	13.8	848	14.1	**860**	**13.9**
437.leslie3d	**807**	**11.6**	809	11.6	801	11.7	**810**	**11.6**	809	11.6	810	11.6
444.namd	**654**	**12.3**	655	12.2	654	12.3	665	12.1	665	12.1	**665**	**12.1**
447.dealII	**538**	**21.3**	538	21.3	537	21.3	523	21.9	**523**	**21.9**	523	21.9
450.soplex	726	11.5	**726**	**11.5**	725	11.5	709	11.8	**709**	**11.8**	709	11.8
453.povray	330	16.1	**329**	**16.2**	328	16.2	**252**	**21.1**	252	21.1	252	21.1
454.calculix	**669**	**12.3**	669	12.3	670	12.3	652	12.7	653	12.6	**652**	**12.6**
459.GemsFDTD	962	11.0	961	11.0	**962**	**11.0**	969	10.9	968	11.0	**968**	**11.0**
465.tonto	766	12.8	**767**	**12.8**	767	12.8	739	13.3	**740**	**13.3**	747	13.2
470.lbm	2289	6.00	**2292**	**5.99**	2299	5.98	2287	6.01	**2295**	**5.99**	2300	5.97
481.wrf	741	15.1	740	15.1	**741**	**15.1**	**769**	**14.5**	768	14.5	769	14.5
482.sphinx3	1189	16.4	**1198**	**16.3**	1199	16.3	1097	17.8	1107	17.6	**1098**	**17.8**

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'

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

/usr/bin/taskset utility used to bind CPU(s) to processes
```

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

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For other inquiries, please contact webmaster@spec.org.

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