



# SPEC® CFP2006 Result

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## Bull SAS

SPECfp®2006 = 10.6

NovaScale R480 (3.20 GHz, Intel Xeon 7130M)

SPECfp\_base2006 = 10.4

CPU2006 license: 20

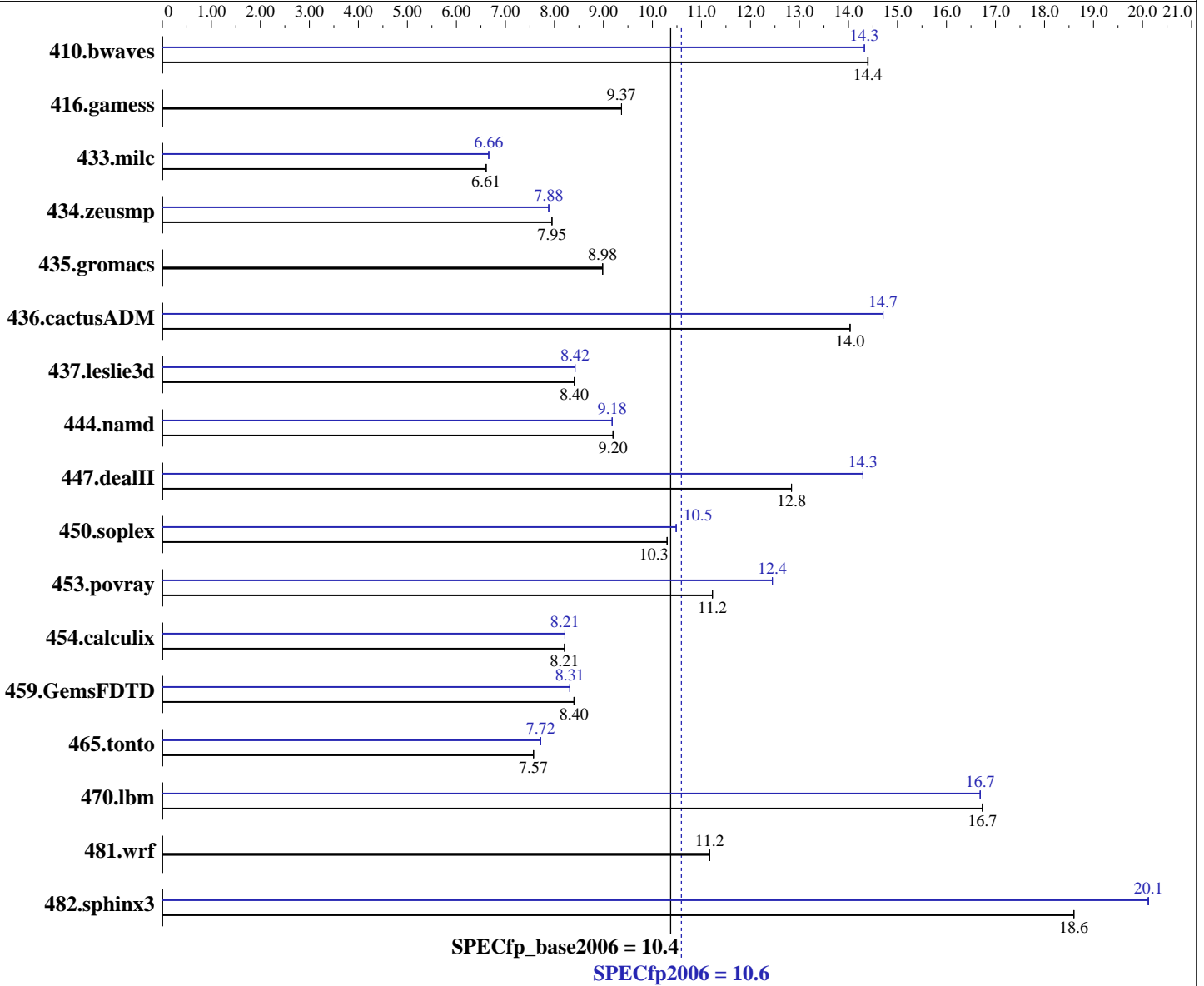
Test sponsor: Bull SAS

Tested by: Bull SAS

Test date: Mar-2007

Hardware Availability: Sep-2006

Software Availability: Nov-2006



### Hardware

CPU Name: Intel Xeon 7130M  
 CPU Characteristics: 3.2GHz, 800MHz bus  
 CPU MHz: 3200  
 FPU: Integrated  
 CPU(s) enabled: 1 core, 1 chip, 2 cores/chip  
 CPU(s) orderable: 1,2,4 chips  
 Primary Cache: 12 K micro-ops I + 16 KB D on chip per core  
 Secondary Cache: 1 MB I+D on chip per core

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### Software

Operating System: Windows Server 2003 Enterprise X64 Edition  
 Compiler: Intel C++ Compiler 9.1 for 32-bit  
 Build 20061103Z Package ID: W\_CC\_C\_9.1.033  
 Intel Fortran Compiler 9.1 for 32-bit  
 Build 20061103Z Package ID: W\_FC\_C\_9.1.033  
 Microsoft Visual Studio .NET 2003 (libraries)  
 Auto Parallel: No  
 File System: NTFS  
 System State: Default

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L3 Cache: 8 MB I+D on chip per chip  
Other Cache: None  
Memory: 32 GB (667 MHz ECC CL5 DDR2 FB-DIMM)  
Disk Subsystem: 2x36GB SAS 15000 rpm  
Other Hardware: None

Base Pointers: 32-bit  
Peak Pointers: 32-bit  
Other Software: MicroQuill SmartHeap Library 8.0 (shlW32M.lib)

## Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	944	14.4	944	14.4	<b>944</b>	<b>14.4</b>	949	14.3	949	14.3	<b>949</b>	<b>14.3</b>
416.gamess	<b>2090</b>	<b>9.37</b>	2090	9.37	2090	9.37	<b>2090</b>	<b>9.37</b>	2090	9.37	2090	9.37
433.milc	1389	6.61	1390	6.61	<b>1390</b>	<b>6.61</b>	<b>1378</b>	<b>6.66</b>	1378	6.66	1379	6.66
434.zeusmp	1145	7.95	1145	7.95	<b>1145</b>	<b>7.95</b>	1154	7.88	1154	7.88	<b>1154</b>	<b>7.88</b>
435.gromacs	795	8.98	795	8.98	<b>795</b>	<b>8.98</b>	795	8.98	795	8.98	<b>795</b>	<b>8.98</b>
436.cactusADM	<b>852</b>	<b>14.0</b>	852	14.0	852	14.0	813	14.7	813	14.7	<b>813</b>	<b>14.7</b>
437.leslie3d	1119	8.40	1119	8.40	<b>1119</b>	<b>8.40</b>	<b>1116</b>	<b>8.42</b>	1116	8.42	1116	8.42
444.namd	872	9.20	872	9.20	<b>872</b>	<b>9.20</b>	<b>874</b>	<b>9.18</b>	874	9.18	874	9.18
447.dealII	891	12.8	<b>891</b>	<b>12.8</b>	891	12.8	800	14.3	800	14.3	<b>800</b>	<b>14.3</b>
450.soplex	<b>810</b>	<b>10.3</b>	810	10.3	810	10.3	795	10.5	795	10.5	<b>795</b>	<b>10.5</b>
453.povray	<b>474</b>	<b>11.2</b>	474	11.2	474	11.2	<b>427</b>	<b>12.4</b>	427	12.4	427	12.4
454.calculix	1005	8.21	<b>1005</b>	<b>8.21</b>	1005	8.21	1004	8.21	1004	8.21	<b>1004</b>	<b>8.21</b>
459.GemsFDTD	<b>1263</b>	<b>8.40</b>	1263	8.40	1263	8.40	1276	8.31	1276	8.31	<b>1276</b>	<b>8.31</b>
465.tonto	1299	7.57	<b>1299</b>	<b>7.57</b>	1299	7.57	1275	7.72	<b>1275</b>	<b>7.72</b>	1274	7.72
470.lbm	<b>821</b>	<b>16.7</b>	821	16.7	821	16.7	823	16.7	823	16.7	<b>823</b>	<b>16.7</b>
481.wrf	<b>1000</b>	<b>11.2</b>	1000	11.2	1000	11.2	<b>1000</b>	<b>11.2</b>	1000	11.2	1000	11.2
482.sphinx3	<b>1048</b>	<b>18.6</b>	1048	18.6	1048	18.6	968	20.1	<b>969</b>	<b>20.1</b>	969	20.1

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

## General Notes

Other Configuration Notes  
/NUMPROC=1 flag was added to boot.ini to invoke uniprocessor environment

The NovaScale T880 and the NovaScale R480 models are electronically equivalent.  
The results have been measured on a NovaScale R480 model.



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## Base Compiler Invocation

C benchmarks:

icl -Qvc7.1 -Qc99

C++ benchmarks:

icl -Qvc7.1

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc7.1 -Qc99 ifort

## Base Portability Flags

436.cactusADM: -Qlowercase /assume:underscore

444.namd: -TP

447.dealII: -DDEAL\_II\_MEMBER\_VAR\_SPECIALIZATION\_BUG

-DBOOST\_NO\_INTRINSIC\_WCHAR\_T

453.povray: -DSPEC\_CPU\_WINDOWS\_ICL

454.calculix: -DSPEC\_CPU\_NOZMODIFIER -Qlowercase

481.wrf: -DSPEC\_CPU\_WINDOWS\_ICL

## Base Optimization Flags

C benchmarks:

-fast /F950000000 shlw32m.lib -link /FORCE:MULTIPLE

C++ benchmarks:

-fast -Qcxx\_features /F950000000 shlw32m.lib

-link /FORCE:MULTIPLE

Fortran benchmarks:

-fast /F950000000 -link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:

-fast /F950000000 -link /FORCE:MULTIPLE

## Peak Compiler Invocation

C benchmarks:

icl -Qvc7.1 -Qc99

C++ benchmarks:

icl -Qvc7.1

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## Peak Compiler Invocation (Continued)

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc7.1 -Qc99 ifort

## Peak Portability Flags

436.cactusADM: -Qlowercase /assume:underscore  
 444.namd: -TP  
 447.dealII: -DDEAL\_II\_MEMBER\_VAR\_SPECIALIZATION\_BUG  
 -DBOOST\_NO\_INTRINSIC\_WCHAR\_T  
 453.povray: -DSPEC\_CPU\_WINDOWS\_ICL  
 454.calculix: -DSPEC\_CPU\_NOZMODIFIER -Qlowercase  
 481.wrf: -DSPEC\_CPU\_WINDOWS\_ICL

## Peak Optimization Flags

C benchmarks:

-Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast /F950000000 shlw32m.lib  
-link /FORCE:MULTIPLE

C++ benchmarks:

-Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast -Qcxx\_features  
/F950000000 shlw32m.lib -link /FORCE:MULTIPLE

Fortran benchmarks:

410.bwaves: -Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast /F950000000  
-link /FORCE:MULTIPLE

416.gamess: basepeak = yes

434.zeusmp: Same as 410.bwaves

437.leslie3d: Same as 410.bwaves

459.GemsFDTD: Same as 410.bwaves

465.tonto: Same as 410.bwaves

Benchmarks using both Fortran and C:

435.gromacs: basepeak = yes

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## Peak Optimization Flags (Continued)

436.cactusADM: -Qprof\_gen(pass 1) -Qprof\_use(pass 2) -fast /F950000000  
-link /FORCE:MULTIPLE

454.calculix: Same as 436.cactusADM

481.wrf: basepeak = yes

The flags file that was used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/flags.20090714.00.html>

You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/flags.20090714.00.xml>

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For questions about this result, please contact the tester.  
For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.0.  
Report generated on Tue Jul 22 11:59:36 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 17 April 2007.