**Bull SAS**

BL265  
(Intel Xeon E5530, 2.40 GHz)

<table>
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<tr>
<th>Program</th>
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<td>482.sphinx3</td>
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**Hardware**

- **CPU Name:** Intel Xeon E5530
- **CPU Characteristics:** Intel Turbo Boost Technology up to 2.66 GHz
- **CPU MHz:** 2400
- **FPU:** Integrated
- **CPU(s) enabled:** 8 cores, 2 chips, 4 cores/chip, 2 threads/core
- **CPU(s) orderable:** 1,2 chips
- **Primary Cache:** 32 KB I + 32 KB D on chip per core
- **Secondary Cache:** 256 KB I+D on chip per core

**Software**

- **Operating System:** SUSE Linux Enterprise Server 10 (x86_64) SP2, SP2 with patch Linux kernel 20090119, Kernel 2.6.16.60-0.34-smp
- **Compiler:** Intel C++ and Fortran Compiler 11.0 for Linux Build 20090131 Package ID: l_cproc_p_11.0.080, l_cprof_p_11.0.080
- **Auto Parallel:** No
- **File System:** ReiserFS
- **System State:** Run level 3 (multi-user)

---

Test sponsor: Bull SAS  
Tested by: Bull SAS  
Hardware Availability: May-2009  
Software Availability: Feb-2009  

Test date: Jan-2010  
CPU2006 license: 20
## Results Table

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</table>

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

## Submit Notes

The config file option 'submit' was used. numactl was used to bind copies to the cores.

## Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run.

## Base Compiler Invocation

C benchmarks:

icc

---

Continued on next page

Standard Performance Evaluation Corporation
info@spec.org
http://www.spec.org/
## SPEC CFP2006 Result

### Bull SAS

BL265  
(Intel Xeon E5530, 2.40 GHz)

| SPECfp_rate2006 | 163 |
| SPECfp_rate_base2006 | 159 |

**CPU2006 license:** 20  
**Test date:** Jan-2010  
**Test sponsor:** Bull SAS  
**Tested by:** Bull SAS  
**Hardware Availability:** May-2009  
**Software Availability:** Feb-2009

### Base Compiler Invocation (Continued)

- **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:**
  - `xSSE4.2 -ipo -O3 -no-prec-div -static`

- **C++ benchmarks:**
  - `xSSE4.2 -ipo -O3 -no-prec-div -static`

- **Fortran benchmarks:**
  - `xSSE4.2 -ipo -O3 -no-prec-div -static`

- **Benchmarks using both Fortran and C:**
  - `xSSE4.2 -ipo -O3 -no-prec-div -static`
Bull SAS
BL265
(Intel Xeon E5530, 2.40 GHz)

SPEC CFP2006 Result

SPECfp_rate2006 = 163
SPECfp_rate_base2006 = 159

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

Test date: Jan-2010
Hardware Availability: May-2009
Software Availability: Feb-2009

Peak Compiler Invocation

C benchmarks (except as noted below):
  icc
   482.sphinx3: icc -m32

C++ benchmarks (except as noted below):
  icpc
   450.soplex: icpc -m32

Fortran benchmarks (except as noted below):
  ifort
   437.leslie3d: ifort -m32

Benchmarks using both Fortran and C:
  icc ifort

Peak 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
444.namd: -DSPEC_CPU_LP64
447.dealII: -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

Peak Optimization Flags

C benchmarks:
  433.milc: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(pass 2)
    -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
    -fno-alias
  470.lbm: -xSSE4.2 -ipo -03 -no-prec-div -static -opt-prefetch
    -auto-ilp32

Continued on next page
Peak Optimization Flags (Continued)

482.sphinx3: –xsse4.2 -ipo -03 -no-prec-div -static -unroll2

C++ benchmarks:

444.namd: -xsse4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(pass 2)
 -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
 -fno-alias -auto-ilp32

447.dealII: -xsse4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(pass 2)
 -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
 -unroll2 -ansi-alias -scalar-rep-

450.soplex: -xsse4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(pass 2)
 -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
 -opt-malloc-options=3

453.povray: -xsse4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(pass 2)
 -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
 -unroll4 -ansi-alias

Fortran benchmarks:

410.bwaves: -xsse4.2 -ipo -03 -no-prec-div -static -opt-prefetch

416.gamess: -xsse4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(pass 2)
 -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
 -unroll2 -Ob0 -ansi-alias -scalar-rep-

434.zeusmp: -xsse4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(pass 2)
 -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)

437.leslie3d: -xsse4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(pass 2)
 -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
 -opt-malloc-options=3 -opt-prefetch

459.GemsFDTD: -xsse4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(pass 2)
 -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
 -unroll2 -Ob0 -opt-prefetch

465.tonto: -xsse4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(pass 2)
 -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
 -unroll4 -auto

Benchmarks using both Fortran and C:

435.gromacs: -xsse4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -03(pass 2)
 -no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
 -opt-prefetch -auto-ilp32

Continued on next page
Bull SAS
BL265
(Intel Xeon E5530, 2.40 GHz)

SPECfp_rate2006 = 163
SPECfp_rate_base2006 = 159

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

Test date: Jan-2010
Hardware Availability: May-2009
Software Availability: Feb-2009

Peak Optimization Flags (Continued)

436.cactusADM: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -o3(pass 2)
-no-prec-div(pass 2) -static(pass 2) -prof-use(pass 2)
-unroll2 -opt-prefetch -auto-ilp32

454.calculix: -xSSE4.2 -ipo -o3 -no-prec-div -static -auto-ilp32

481.wrf: basepeak = yes

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

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

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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