Bull SAS
NovaScale R440
(Intel Xeon processor E5335, 2.00GHz)

| SPECint®2006 = 15.5 |
| SPECint_base2006 = 14.1 |

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

Test date: Jul-2007
Hardware Availability: Mar-2007
Software Availability: May-2007

| SPECint2006 = 15.5 |
| SPECint_base2006 = 14.1 |

### Hardware

- CPU Name: Intel Xeon E5335
- CPU Characteristics: 2.00 GHz, 8 MB L2, 1333 MHz system bus
- CPU MHz: 2000
- 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
- L3 Cache: None
- Other Cache: None
- Memory: 12 GB (12x1 GB) FB-DIMM PC2-4200F ECC CL4
- Disk Subsystem: 1x73 GB SAS, 15000 RPM
- Other Hardware: None

### Software

- Operating System: SUSE LINUX Enterprise Server 10
- Compiler: Intel C++ Compiler for Linux32 and Linux64 version 10.0
- Auto Parallel: No
- File System: ext2
- System State: Multi-user run level 3
- Base Pointers: 32-bit
- Peak Pointers: 32/64-bit
- Other Software: SmartHeap library V8.1
- Binutils 2.17.50.0.15
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Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run
All benchmarks compiled in 32-bit mode except 401.bzip2 and 456.hmmer, for peak, are compiled in 64-bit mode

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

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Seconds</th>
<th>Ratio</th>
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<td>401.bzip2</td>
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<td>10.5</td>
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<td>403.gcc</td>
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<td>14.0</td>
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<td>429.mcf</td>
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Results appear in the order in which they were run. Bold underlined text indicates a median measurement.
Bull SAS
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SPECint_base2006 = 14.1

CPU2006 license: 20
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Test date: Jul-2007
Hardware Availability: Mar-2007
Software Availability: May-2007

Base Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
-fast

C++ benchmarks:
-xT -ipo -O3 -no-prec-div -Wl,-z,muldefs
-L/spec/cpu2006/lib -lsmartheap

Base Other Flags

C benchmarks:
403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):
icc

401.bzip2: /opt/intel/cce/10.0.023/bin/icc
-L/opt/intel/cce/10.0.023/lib
-I/opt/intel/cce/10.0.023/include

456.hmmer: /opt/intel/cce/10.0.023/bin/icc
-L/opt/intel/cce/10.0.023/lib
-I/opt/intel/cce/10.0.023/include

C++ benchmarks:
icpc

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
401.bzip2: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX
SPEC CINT2006 Result

Bull SAS
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(Intel Xeon processor E5335, 2.00GHz)

SPECint2006 = 15.5
SPECint_base2006 = 14.1

CPU2006 license: 20
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Peak Portability Flags (Continued)

483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -prof_gen(pass 1) -prof_use(pass 2) -fast -ansi-alias
-prefetch
401.bzip2: -prof_gen(pass 1) -prof_use(pass 2) -fast
403.gcc: basepeak = yes
429.mcf: -fast -prefetch
445.gobmk: -prof_gen(pass 1) -prof_use(pass 2) -xT -O2 -ipo
-no-prec_div -ansi-alias
456.hmmer: -prof_gen(pass 1) -prof_use(pass 2) -fast -unroll2
-ansi-alias
458.sjeng: -prof_gen(pass 1) -prof_use(pass 2) -fast -unroll4
462.libquantum: -prof_gen(pass 1) -prof_use(pass 2) -fast -unroll4 -Ob0
-prefetch -opt-streaming-stores always
464.h264ref: Same as 456.hmmer

C++ benchmarks:

471.omnetpp: -prof_gen(pass 1) -prof_use(pass 2) -xT -O3 -ipo
-no-prec_div -ansi-alias -Wl,-z,muldefs
-L/spec/cpu2006/lib -lsmartheap
473.astar: Same as 471.omnetpp
483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca
# SPEC CINT2006 Result

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The flags file that was used to format this result can be browsed at  
http://www.spec.org/cpu2006/flags/EM64T_Intel100_flags.20090714.html

You can also download the XML flags source by saving the following link:  
http://www.spec.org/cpu2006/flags/EM64T_Intel100_flags.20090714.xml

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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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