Bull SAS
NovaScale T840 (1.86 GHz, Intel Xeon E5320)

SPECint®2006 = 11.5
SPECint_base2006 = 11.0

CPU2006 license: 20
Test sponsor: Bull SAS
Tested by: Bull SAS
Test date: Mar-2007
Hardware Availability: Jan-2007
Software Availability: Nov-2006

400.perlbench
401.bzip2
403.gcc
429.mcf
445.gobmk
456.hmmer
458.sjeng
462.libquantum
464.h264ref
471.omnetpp
473.astar
483.xalancbmk

SPECint_base2006 = 11.0:
SPECint2006 = 11.5

Hardware
CPU Name: Intel Xeon E5320
CPU Characteristics: 1.86 GHz, 8MB L2, 1066MHz bus
CPU MHz: 1860
FPU: Integrated
CPU(s) enabled: 1 core, 1 chip, 4 cores/chip
CPU(s) orderable: 1.2 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: 8 GB (667 MHz ECC CL5 DDR2 FB-DIMM)
Disk Subsystem: 3x73GB SCSI 15000 rpm
Other Hardware: None

Software
Compiler: Intel C++ Compiler 9.1.033 for 32-bit apps,
Build 20061103Z Package ID: W_CC_P_9.1.033
Microsoft Visual Studio .NET 2003 (libraries)
Auto Parallel: No
File System: NTFS
System State: Default
Base Pointers: 32-bit
Peak Pointers: 32-bit
Other Software: MicroQuill SmartHeap Library 8.0 (shlW32M.lib)
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SPEC CINT2006 Result

SPECint2006 = 11.5
SPECint_base2006 = 11.0

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Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
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<td>1080</td>
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<td>462.libquantum</td>
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<td>473.astar</td>
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<td><strong>490</strong></td>
<td><strong>14.1</strong></td>
</tr>
</tbody>
</table>

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

Base Compiler Invocation

C benchmarks:
  icl -Qvc7.1 -Qc99

C++ benchmarks:
  icl -Qvc7.1

Base Portability Flags

403.gcc: -DSPEC_CPU_WIN32

Continued on next page
### Bull SAS

**NovaScale T840 (1.86 GHz, Intel Xeon E5320)**

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- **CPU2006 license:** 20
- **Test sponsor:** Bull SAS
- **Tested by:** Bull SAS
- **Test date:** Mar-2007
- **Hardware Availability:** Jan-2007
- **Software Availability:** Nov-2006

#### Base Portability Flags (Continued)

- **464.h264ref:** `-DSPEC_CPU_NO_INTTYPES` `-DWIN32`

#### Base Optimization Flags

- **C benchmarks:**
  - `-fast` `/F512000000` `shlw32m.lib`
  - `-link` `/FORCE:MULTIPLE`
- **C++ benchmarks:**
  - `-fast` `-Qcxx_features` `/F512000000` `shlw32m.lib`
  - `-link` `/FORCE:MULTIPLE`

#### Base Other Flags

- **C benchmarks:**
  - `403.gcc`: `-Dalloca=_alloca`

#### Peak Compiler Invocation

- **C benchmarks:**
  - `icl` `-Qvc7.1` `-Qc99`
- **C++ benchmarks:**
  - `icl` `-Qvc7.1`

#### Peak Portability Flags

- `403.gcc`: `-DSPEC_CPU_WIN32`
- `464.h264ref`: `-DSPEC_CPU_NO_INTTYPES` `-DWIN32`

#### Peak Optimization Flags

- **C benchmarks:**
  - `400.perlbench`: `-Qprof_gen(pass 1)` `-Qprof_use(pass 2)` `-fast` `/F512000000` `shlw32m.lib`
  - `-link` `/FORCE:MULTIPLE`
  - `01.bzip2`: Same as `400.perlbench`
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SPECint2006 = 11.5
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Peak Optimization Flags (Continued)

403.gcc: Same as 400.perlbench

429.mcf: -fast /F5120000000 shlw32m.lib
         -link /FORCE:MULTIPLE

445.gobmk: Same as 400.perlbench

456.hmmer: Same as 400.perlbench

458.sjeng: Same as 400.perlbench

462.libquantum: Same as 400.perlbench

464.h264ref: Same as 400.perlbench

C++ benchmarks:
- Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qcxx_features
 /F5120000000 shlw32m.lib
         -link /FORCE:MULTIPLE

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

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 other inquiries, please contact webmaster@spec.org.

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