SPEC® CINT2006 Result

NEC Corporation

Express5800/120Lj
(Intel Xeon X5260)

CPU2006 license: 9006
Test sponsor: NEC Corporation
Tested by: NEC Corporation

SPECint_rate2006 = 81.3
SPECint_rate_base2006 = 69.4

Hardware

CPU Name: Intel Xeon X5260
CPU Characteristics: 3.33 GHz, 6 MB L2, 1333 MHz bus
CPU MHz: 3333
FPU: Integrated
CPU(s) enabled: 4 cores, 2 chips, 2 cores/chip
CPU(s) orderable: 1.2 chips
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 6 MB I+D on chip per chip
L3 Cache: None
Other Cache: None
Memory: 12 GB (12x1 GB PC2-5300F, 2 rank, CL5-5-5, ECC)
Disk Subsystem: 1x73.2 GB SAS, 15000RPM
Other Hardware: None

Software

Operating System: SUSE Linux Enterprise Server 10 (x86_64) SP1, Kernel 2.6.16.46-0.12-smp
Compiler: Intel C++ Compiler for Linux32 and Linux64 version 10.1 Build 20070913 Package ID: l_cc_p_10.1.008
Auto Parallel: Yes
File System: ext2
System State: Run level 3 (multi-user)
Base Pointers: 32-bit
Peak Pointers: 32/64-bit
Other Software: MicroQuill SmartHeap library 8.1
binutils-2.17.tar.gz, Version 2.17
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Hardware Availability: Feb-2008
Software Availability: Nov-2007

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
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<th>Ratio</th>
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<tbody>
<tr>
<td>400.perlbench</td>
<td>4</td>
<td>470</td>
<td>83.1</td>
<td>468</td>
<td>83.5</td>
<td>471</td>
<td>83.0</td>
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<td>401.bzip2</td>
<td>4</td>
<td>637</td>
<td>60.6</td>
<td>636</td>
<td>60.7</td>
<td>643</td>
<td>60.0</td>
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<tr>
<td>403.gcc</td>
<td>4</td>
<td>517</td>
<td>62.3</td>
<td>516</td>
<td>62.4</td>
<td>518</td>
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<tr>
<td>429.mcf</td>
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<td>64.5</td>
<td>564</td>
<td>64.7</td>
<td>560</td>
<td>65.1</td>
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<td>445.gobmk</td>
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<td>456.hmmer</td>
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<td>70.2</td>
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<td>458.sjeng</td>
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<td>462.libquantum</td>
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<td>471.omnetpp</td>
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<td>473.astar</td>
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<td>483.xalancbmk</td>
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<td>85.8</td>
<td>323</td>
<td>85.5</td>
<td>322</td>
<td>85.8</td>
</tr>
</tbody>
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Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run OMP_NUM_THREADS set to number of cores

Platform Notes

Bios settings:
Intel SpeedStep Technology: Disabled

General Notes

All benchmarks compiled in 32-bit mode except 401.bzip2, 456.hmmer, for peak, are compiled in 64-bit mode

The NEC Express5800/120Lj(Intel Xeon X5260) and the Bull NovaScale T860 E1(Intel Xeon X5260,3.33GHz) models are electronically equivalent. The results have been measured on a NEC Express5800/120Lj(Intel Xeon X5260) model.

Base Compiler Invocation

C benchmarks:
  icc

C++ benchmarks:
  icpc
# SPEC CINT2006 Result

## NEC Corporation

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## 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
  - -inline-calloc
  - -opt-malloc-options=3

- **C++ benchmarks:**
  - -xT
  - -ipo
  - -O3
  - -no-prec-div
  - -Wl,-z,muldefs
  - -L/opt/SmartHeap\_8.1/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/10.1.008/bin/icc
      - -L/opt/intel/cce/10.1.008/lib
      - -I/opt/intel/cce/10.1.008/include
    - 456.hmmer: /opt/intel/cce/10.1.008/bin/icc
      - -L/opt/intel/cce/10.1.008/lib
      - -I/opt/intel/cce/10.1.008/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

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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 -prefetch

403.gcc: -fast -inline-cALLOC -opt-malloc-options=3

429.mcf: -fast -prefetch

445.gobmk: -prof-gen(pass 1) -prof-use(pass 2) -xT -O2 -ipo
-no-prec-div -ansi-alias

456.hmmer: -fast -unroll2 -ansi-alias -opt-multi-version-aggressive

458.sjeng: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll14

462.libquantum: -fast -unroll4 -Ob0 -prefetch
-opt-streaming-stores always -vec-guard-write
-opt-malloc-options=3 -parallel -par-runtime-control

464.h264ref: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2
-ansi-alias

C++ benchmarks:

471.omnetpp: -prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo
-no-prec-div -ansi-alias -opt-ra-region-strategy=block
-Wl,-z,muldefs -L/opt/SmartHeap_8.1/lib -lsmartheap

473.astar: -prof-gen(pass 1) -prof-use(pass 2) -xT -O3 -ipo
-no-prec-div -ansi-alias -opt-ra-region-strategy=routine
-Wl,-z,muldefs -L/opt/SmartHeap_8.1/lib -lsmartheap

483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

Continued on next page
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**Peak Other Flags (Continued)**

403.gcc: -Dalloca=_alloca

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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