Dell Inc.

PowerEdge R710 (Intel Xeon E5530, 2.40 GHz)

SPECint\_rate2006 = 218

SPECint\_rate\_base2006 = 205

CPU2006 license: 55
Test sponsor: Dell Inc.
Tested by: Dell Inc.

Test date: Feb-2010
Hardware Availability: Mar-2010
Software Availability: Dec-2009

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
- L3 Cache: 8 MB I+D on chip per chip
- Other Cache: None
- Memory: 48 GB (12 x 4 GB DDR3-1333 DR RDIMM downclocked to 1066 MHz)
- Disk Subsystem: 1 x 146 GB 15000 RPM SAS
- Other Hardware: None

Software

- Operating System: SUSE Linux Enterprise Server 11 (x86_64)
- Compiler: Intel C++ Professional Compiler for IA32 and Intel 64, Version 11.1
- Build 20091130 Package ID: i_cproc_p_11.1.064
- Auto Parallel: No
- File System: ext3
- System State: Run level 3 (multi-user)
- Base Pointers: 32-bit
- Peak Pointers: 32/64-bit
- Other Software: Microquill SmartHeap V8.1
- Binutils 2.18.50.0.7.20080502
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Results Table

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<th>Ratio</th>
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<td>219</td>
<td>503</td>
</tr>
</tbody>
</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 stack size to unlimited prior to run

Base Compiler Invocation
C benchmarks:
icc -m32

C++ benchmarks:
icpc -m32

Base Portability Flags
400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX
Dell Inc. PowerEdge R710 (Intel Xeon E5530, 2.40 GHz)

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Base Optimization Flags

C benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

C++ benchmarks:
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs

Base Other Flags

C benchmarks:
403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

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

  401.bzip2: icc  -m64
  456.hmmer: icc  -m64
  458.sjeng: icc  -m64
  462.libquantum: icc  -m64

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

  473.astar: icpc -m64

Peak Portability Flags

  400.perlbench: -DSPEC_CPU_LINUX_IA32
  401.bzip2: -DSPEC_CPU_LP64
  456.hmmer: -DSPEC_CPU_LP64
  458.sjeng: -DSPEC_CPU_LP64
  462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
  473.astar: -DSPEC_CPU_LP64
  483.xalancbmk: -DSPEC_CPU_LINUX
SPEC CINT2006 Result

Dell Inc.
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Peak Optimization Flags

C benchmarks:

400.perlbench: -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) -ansi-alias

401.bzip2: -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) -opt-prefetch -ansi-alias -auto-ilp32

403.gcc: basepeak = yes

429.mcf: -xSSE4.2 -ipo -O3 -no-prec-div -static -opt-prefetch

445.gobmk: -xSSE4.2 (pass 2) -prof-gen (pass 1) -prof-use (pass 2) -O2
   -ipo -no-prec-div -ansi-alias

456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -static -unroll2
   -ansi-alias -auto-ilp32

458.sjeng: -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) -unroll4 -auto-ilp32

462.libquantum: -xSSE4.2 -ipo -O3 -no-prec-div -static -auto-ilp32
   -opt-prefetch

464.h264ref: basepeak = yes

C++ benchmarks:

471.omnetpp: -xSSE4.2 (pass 2) -prof-gen (pass 1) -ipo (pass 2)
   -O3 (pass 2) -no-prec-div (pass 2) -prof-use (pass 2)
   -ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs

473.astar: -xSSE4.2 (pass 2) -prof-gen (pass 1) -ipo (pass 2)
   -O3 (pass 2) -no-prec-div (pass 2) -prof-use (pass 2)
   -ansi-alias -opt-ra-region-strategy=routine -Wl,-z,muldefs

483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

Continued on next page
### Dell Inc.

**PowerEdge R710 (Intel Xeon E5530, 2.40 GHz)**

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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:  