## SPECint®2006 = 33.8

### Hardware

- **CPU Name:** Intel Xeon X5560
- **CPU Characteristics:** Intel Turbo Boost Technology up to 3.20 GHz
- **CPU MHz:** 2800
- **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:** 24 GB (6 x 4 GB DDR3-1333 DR RDIMM)
- **Disk Subsystem:** 1 x 146 GB 15000 RPM SAS
- **Other Hardware:** None

### Software

- **Operating System:** SUSE Linux Enterprise Server 10 (x86_64) SP2, Kernel 2.6.16.60-0.21-smp
- **Compiler:** Intel C++ Compiler Professional 11.0 for Linux Build 20090131 Package ID: l_cproc_p_11.0.080
- **Auto Parallel:** Yes
- **File System:** ReiserFS
- **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

### Test Details

- **CPU2006 license:** 55
- **Test sponsor:** Dell Inc.
- **Tested by:** Dell Inc.
- **Test date:** Mar-2009
- **Hardware Availability:** Mar-2009
- **Software Availability:** Feb-2009

### Benchmarks

<table>
<thead>
<tr>
<th>Benchmark</th>
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</tr>
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<tbody>
<tr>
<td>400.perlbench</td>
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Dell Inc.
PowerEdge T610 (Intel Xeon X5560, 2.80 GHz)

SPECint2006 = 33.8
SPECint_base2006 = 30.4

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

Results Table

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

General Notes
OMP_NUM_THREADS set to number of cores
KMP_AFFINITY set to granularity=fine,scatter

Base Compiler Invocation
C benchmarks:
   icc
C++ benchmarks:
   icpc

Base Portability Flags
400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags
C benchmarks:
   -xSSE4.2 -ipo -O3 -no-prec-div -static -parallel
   -par-runtime-control -opt-prefetch

Continued on next page
### SPEC CINT2006 Result

**Dell Inc.**

PowerEdge T610 (Intel Xeon X5560, 2.80 GHz)  

<table>
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**CPU2006 license:** 55  
**Test sponsor:** Dell Inc.  
**Tested by:** Dell Inc.

---

### Base Optimization Flags (Continued)

C++ benchmarks:
- `-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs`  
- `-L/spec/cpu2006.1.1/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/Compiler/11.0/080/bin/intel64/icc`  
456.hmmer: `/opt/intel/Compiler/11.0/080/bin/intel64/icc`  
458.sjeng: `/opt/intel/Compiler/11.0/080/bin/intel64/icc`

C++ benchmarks (except as noted below):

icpc

473.astar: `/opt/intel/Compiler/11.0/080/bin/intel64/icpc`

---

### 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_LINUX`  
473.astar: `-DSPEC_CPU_LP64`  
483.xalancbmk: `-DSPEC_CPU_LINUX`

---

### 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 -opt-prefetch`  
Continued on next page
Dell Inc. PowerEdge T610 (Intel Xeon X5560, 2.80 GHz) SPECint2006 = 33.8 SPECint_base2006 = 30.4

CPU2006 license: 55 Test date: Mar-2009
Test sponsor: Dell Inc. Hardware Availability: Mar-2009
Tested by: Dell Inc. Software Availability: Feb-2009

Peak Optimization Flags (Continued)

```
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) -auto-ilp32 -opt-prefetch -ansi-alias

403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div -static -inline-calloc -opt-malloc-options=3

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) -unroll14 -auto-ilp32

462.libquantum: basepeak = yes

464.h264ref: -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 -ansi-alias
```

Peak Other Flags

C++ benchmarks:

```
471.omnetpp: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmartheap

473.astar: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -ansi-alias -opt-ra-region-strategy=routine -auto-ilp32 -Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmartheap64
```

C benchmarks:

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

### Dell Inc.

**PowerEdge T610 (Intel Xeon X5560, 2.80 GHz)**

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</tr>
<tr>
<td>Software Availability</td>
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</tr>
</tbody>
</table>

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:

http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revA.20090710.02.xml

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For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.1.


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