## SPEC® CINT2006 Result

### Dell Inc.

**PowerEdge 2950 III (Intel Xeon E5410, 2.33 GHz)**

**SPECint®_rate2006 = 119**  
**SPECint_rate_base2006 = 110**

- **CPU2006 license:** 55  
- **Test sponsor:** Dell Inc.  
- **Tested by:** Dell Inc.  
- **Test date:** Oct-2008  
- **Hardware Availability:** Sep-2008  
- **Software Availability:** Nov-2008

### Hardware

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Label</th>
<th>Value</th>
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<tbody>
<tr>
<td>400.perlbench</td>
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<td>96.0</td>
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<tr>
<td>401.bzip2</td>
<td>8</td>
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<td>403.gcc</td>
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<td>429.mcf</td>
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<td>445.gobmk</td>
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<td>473.astar</td>
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<td>8</td>
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<td>483.xalancbmk</td>
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</table>

**SPECint_rate_base2006 = 110**  
**SPECint_rate2006 = 119**

### Software

- **Operating System:** SUSE Linux Enterprise Server 10 (x86_64) SP2, Kernel 2.6.16-60.0.21-smp  
- **Compiler:** Intel C++ Compiler 11.0 for Linux  
- **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

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**Standard Performance Evaluation Corporation**  
info@spec.org  
http://www.spec.org/
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<thead>
<tr>
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<td>497</td>
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<td>497</td>
<td>111</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.

## Operating System Notes

'ulimit -s unlimited' was used to set the stack size to unlimited prior to run.

## Platform Notes

BIOS Settings:
Adjacent Cache Line Prefetch = Disabled (Default = Enabled)

## General Notes

taskset was used to bind processes to cores except for 462.libquantum peak
OMP_NUM_THREADS set to number of processors
KMP_AFFINITY set to "physical,0"
KMP_STACKSIZE set to 64M

## Base Compiler Invocation

C benchmarks:
- icc

Continued on next page
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Base Compiler Invocation (Continued)

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:
-xSSE4.1 -ipo -O3 -no-prec-div -static -inline-calloc
-opt-malloc-options=3 -opt-prefetch

C++ benchmarks:
-xSSE4.1 -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/11.0.042/bin/intel64/icc
-L/opt/intel/Compiler/11.0.042/ipp/em64t/lib
-I/opt/intel/Compiler/11.0.042/ipp/em64t/include

456.hmmer:/opt/intel/Compiler/11.0.042/bin/intel64/icc
-L/opt/intel/Compiler/11.0.042/ipp/em64t/lib
-I/opt/intel/Compiler/11.0.042/ipp/em64t/include

C++ benchmarks:
icpc
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### Peak Portability Flags

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<tr>
<th>Benchmark</th>
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<tbody>
<tr>
<td>400.perlbench</td>
<td>-DSPEC_CPU_LINUX_IA32</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>-DSPEC_CPU_LP64</td>
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<tr>
<td>456.hmmer</td>
<td>-DSPEC_CPU_LP64</td>
</tr>
<tr>
<td>462.libquantum</td>
<td>-DSPEC_CPU_LINUX</td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>-DSPEC_CPU_LINUX</td>
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</table>

### Peak Optimization Flags

**C benchmarks:**

<table>
<thead>
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<tbody>
<tr>
<td>400.perlbench</td>
<td>-prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3 -no-prec-div -static -ansi-alias -opt-prefetch</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>-prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch -ansi-alias</td>
</tr>
<tr>
<td>403.gcc</td>
<td>-xSSE4.1 -ipo -O3 -no-prec-div -static -inline-cALLOC -opt-malloc-options=3</td>
</tr>
<tr>
<td>429.mcf</td>
<td>-prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3 -no-prec-div -static -opt-prefetch</td>
</tr>
<tr>
<td>445.gobmk</td>
<td>-prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -O2 -ipo -no-prec-div -ansi-alias</td>
</tr>
<tr>
<td>464.h264ref</td>
<td>-prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3 -no-prec-div -static -unroll2 -ansi-alias</td>
</tr>
<tr>
<td>456.hmmer</td>
<td>-xSSE4.1 -ipo -O3 -no-prec-div -static -unroll2 -ansi-alias</td>
</tr>
<tr>
<td>458.sjeng</td>
<td>-prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3 -no-prec-div -static -unroll4 -ansi-alias</td>
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<tr>
<td>462.libquantum</td>
<td>-xSSE4.1 -ipo -O3 -no-prec-div -static -opt-malloc-options=3 -parallel -par-runtime-control -opt-prefetch</td>
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<tr>
<td>464.h264ref</td>
<td>-prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3 -no-prec-div -static -unroll2 -ansi-alias</td>
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**C++ benchmarks:**

<table>
<thead>
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<tbody>
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<td>471.omnetpp</td>
<td>-prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3 -no-prec-div -ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmartheap</td>
</tr>
<tr>
<td>473.astar</td>
<td>-prof-gen(pass 1) -prof-use(pass 2) -xSSE4.1 -ipo -O3 -no-prec-div -ansi-alias -opt-ra-region-strategy=routine -Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmartheap</td>
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</tbody>
</table>

Continued on next page
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### Peak Optimization Flags (Continued)

483.xalancbmk: basepeak = yes

### Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

The flags files that were used to format this result can be browsed at


http://www.spec.org/cpu2006/flags/Intel-Linux64-Platform.20090713.02.html

You can also download the XML flags sources by saving the following links:

http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revA.20090713.02.xml

http://www.spec.org/cpu2006/flags/Intel-Linux64-Platform.20090713.02.xml

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

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