IBM Corporation

IBM System x3550 (Intel Xeon X5355)

**SPECint®2006 = 22.3**

**SPECint_base2006 = 19.0**

**Hardware**
- **CPU Name:** Intel Xeon X5355
- **CPU Characteristics:** 1333MHz system bus
- **CPU MHz:** 2667
- **FPU:** Integrated
- **CPU(s) enabled:** 8 cores, 2 chips, 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:** 16 GB (8 x 2GB DDR2-5300F ECC)
- **Disk Subsystem:** 1 x 36 GB SAS, 15000 RPM
- **Other Hardware:** None

**Operating System:** SLES 10 (x86_64), 2.6.16.21-0.8-smp
**Compiler:** Intel C++ Compiler for Linux version 10.1 Build 20070824
**Auto Parallel:** Yes
**File System:** ReiserFS
**System State:** Multi-user, run level 3
**Base Pointers:** 32-bit
**Peak Pointers:** 32/64-bit
**Other Software:** MicroQuill SmartHeap 8.1
## SPEC CINT2006 Result

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<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Base</th>
<th>Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Seconds</td>
<td>Ratio</td>
</tr>
<tr>
<td>400.perlbench</td>
<td>575</td>
<td>17.0</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>720</td>
<td>13.4</td>
</tr>
<tr>
<td>403.gcc</td>
<td>687</td>
<td>11.7</td>
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<tr>
<td>429.mcf</td>
<td>478</td>
<td>19.1</td>
</tr>
<tr>
<td>445.gobmk</td>
<td>615</td>
<td>17.1</td>
</tr>
<tr>
<td>456.hmmer</td>
<td>664</td>
<td>14.1</td>
</tr>
<tr>
<td>458.sjeng</td>
<td>757</td>
<td>16.0</td>
</tr>
<tr>
<td>462.libquantum</td>
<td>177</td>
<td>117</td>
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<tr>
<td>464.h264ref</td>
<td>806</td>
<td>27.5</td>
</tr>
<tr>
<td>471.omnetpp</td>
<td>484</td>
<td>12.9</td>
</tr>
<tr>
<td>473.astar</td>
<td>556</td>
<td>12.6</td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>315</td>
<td>21.9</td>
</tr>
</tbody>
</table>

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 physical,0  
KMP_STACKSIZE set to 32M

### 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:

```
-fast -vec-guard-write -opt-malloc-options=3 -parallel -par-runtime-control
```

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CPU2006 license: 11
Test date: Sep-2007
Test sponsor: IBM Corporation
Hardware Availability: Apr-2007
Tested by: IBM Corporation
Software Availability: Nov-2007

Base Optimization Flags (Continued)

C++ benchmarks:
- -xT
- -ipo
- -03
- -no-prec-div
- -Wl,-z,muldefs
- -L/home/cmplr/usr3/alrahate/cpu2006.1.0/lib
- -lsmartheap

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):

icc

401.bzip2: /home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070824/Linux64/bin/icc
- -L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070824/Linux64/lib
- -I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070824/Linux64/include

456.hmmer: /home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070824/Linux64/bin/icc
- -L/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070824/Linux64/lib
- -I/home/cmplr/usr3/alrahate/compilers/ic10.1mainline/20070824/Linux64/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
483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -prof-gen(pass 1) -prof-use(pass 2) -fast -ansi-alias
- prefetch

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Peak Optimization Flags (Continued)

401.bzip2: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch
-auto-ilp32

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
-auto-ilp32

458.sjeng: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4

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/home/cmplr/usr3/alrahate/cpu2006.1.0/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/home/cmplr/usr3/alrahate/cpu2006.1.0/lib -lsmartheap

483.xalancbmk: basepeak = yes

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/Intel-ic10-ia32-intel64-linux-flags.20090714.28.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic10-ia32-intel64-linux-flags.20090714.28.xml
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