



SPEC® CINT2006 Result

Copyright 2006-2009 Standard Performance Evaluation Corporation

Acer Incorporated

SPECint®2006 = 19.3

Acer AR160 F1 (Intel Xeon E5502)

SPECint_base2006 = 17.2

CPU2006 license: 97

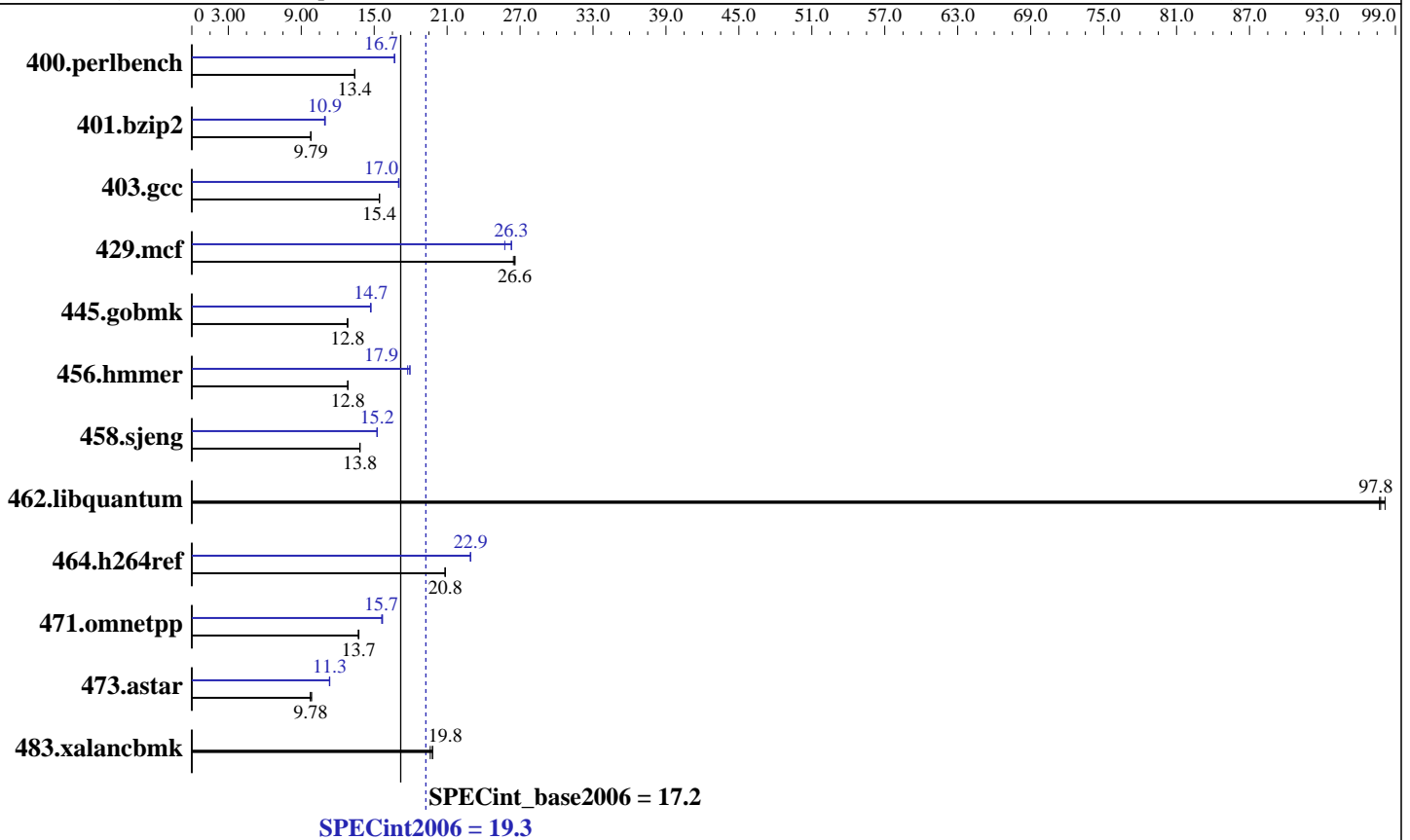
Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: Dec-2009

Hardware Availability: Jan-2010

Software Availability: Feb-2009



Hardware

CPU Name: Intel Xeon E5502
 CPU Characteristics:
 CPU MHz: 1867
 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: 256 KB I+D on chip per core
 L3 Cache: 4 MB I+D on chip per chip
 Other Cache: None
 Memory: 24 GB (6 x 4 GB DDR3-1333 RDIMM)
 Disk Subsystem: 300 GB SATA II, 10000 RPM
 Other Hardware: None

Software

Operating System: SUSE Linux Enterprise Server 11 (x86_64)
 Kernel 2.6.27.19-5
 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



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Results Table

| Benchmark | Base | | | | | | Peak | | | | | |
|----------------|-------------------|--------------------|--------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 400.perlbench | 730 | 13.4 | <u>729</u> | <u>13.4</u> | 729 | 13.4 | 585 | 16.7 | 586 | 16.7 | <u>586</u> | <u>16.7</u> |
| 401.bzip2 | 987 | 9.78 | 984 | 9.81 | <u>986</u> | <u>9.79</u> | 884 | 10.9 | <u>882</u> | <u>10.9</u> | 879 | 11.0 |
| 403.gcc | 522 | 15.4 | <u>522</u> | <u>15.4</u> | 521 | 15.4 | 474 | 17.0 | <u>473</u> | <u>17.0</u> | 472 | 17.0 |
| 429.mcf | 345 | 26.5 | 343 | 26.6 | <u>343</u> | <u>26.6</u> | 347 | 26.3 | 354 | 25.7 | <u>347</u> | <u>26.3</u> |
| 445.gobmk | <u>819</u> | <u>12.8</u> | 819 | 12.8 | 819 | 12.8 | 712 | 14.7 | <u>712</u> | <u>14.7</u> | 714 | 14.7 |
| 456.hammer | 727 | 12.8 | 728 | 12.8 | <u>727</u> | <u>12.8</u> | <u>520</u> | <u>17.9</u> | 520 | 17.9 | 526 | 17.8 |
| 458.sjeng | 875 | 13.8 | <u>875</u> | <u>13.8</u> | 876 | 13.8 | <u>794</u> | <u>15.2</u> | 794 | 15.2 | 794 | 15.2 |
| 462.libquantum | <u>212</u> | <u>97.8</u> | 211 | 98.2 | 212 | 97.7 | <u>212</u> | <u>97.8</u> | 211 | 98.2 | 212 | 97.7 |
| 464.h264ref | 1061 | 20.9 | <u>1062</u> | <u>20.8</u> | 1062 | 20.8 | <u>965</u> | <u>22.9</u> | 966 | 22.9 | 965 | 22.9 |
| 471.omnetpp | 455 | 13.7 | <u>456</u> | <u>13.7</u> | 456 | 13.7 | 400 | 15.6 | <u>399</u> | <u>15.7</u> | 399 | 15.7 |
| 473.astar | 712 | 9.86 | <u>718</u> | <u>9.78</u> | 720 | 9.75 | 620 | 11.3 | <u>619</u> | <u>11.3</u> | 619 | 11.3 |
| 483.xalanbmk | 352 | 19.6 | 348 | 19.8 | <u>349</u> | <u>19.8</u> | 352 | 19.6 | 348 | 19.8 | <u>349</u> | <u>19.8</u> |

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

This result was measured on the Gateway GR160 F1.
The Acer AR160 F1 and Gateway GR160 F1 are electronically equivalent.

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Base Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX
483.xalanbmk: -DSPEC_CPU_LINUX



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Base Optimization Flags

C benchmarks:

```
-xSSE4.2 -ipo -O3 -no-prec-div -static -parallel  
-par-runtime-control -opt-prefetch
```

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
```



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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 -opt-prefetch

401.bzp2: -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-alloc
 -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) -unroll4 -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

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
 -L/spec/cpu2006.1.1/lib -lsmarheap

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 -auto-ilp32
 -Wl,-z,muldefs -L/spec/cpu2006.1.1/lib -lsmarheap64

483.xalancbmk: basepeak = yes



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| | | |
|----------------------------------|--------------------|------|
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Peak Other Flags

Same as Base Other Flags

The flags file that was used to format this result can be browsed at
<http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revE.20100216.html>

You can also download the XML flags source by saving the following link:
<http://www.spec.org/cpu2006/flags/Intel-ic11.0-int-linux64-revE.20100216.xml>

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

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