



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Acer Incorporated

SPECint®2006 = 50.3

Acer AR360 F2 (Xeon E5-2670)

SPECint_base2006 = 47.8

CPU2006 license: 97

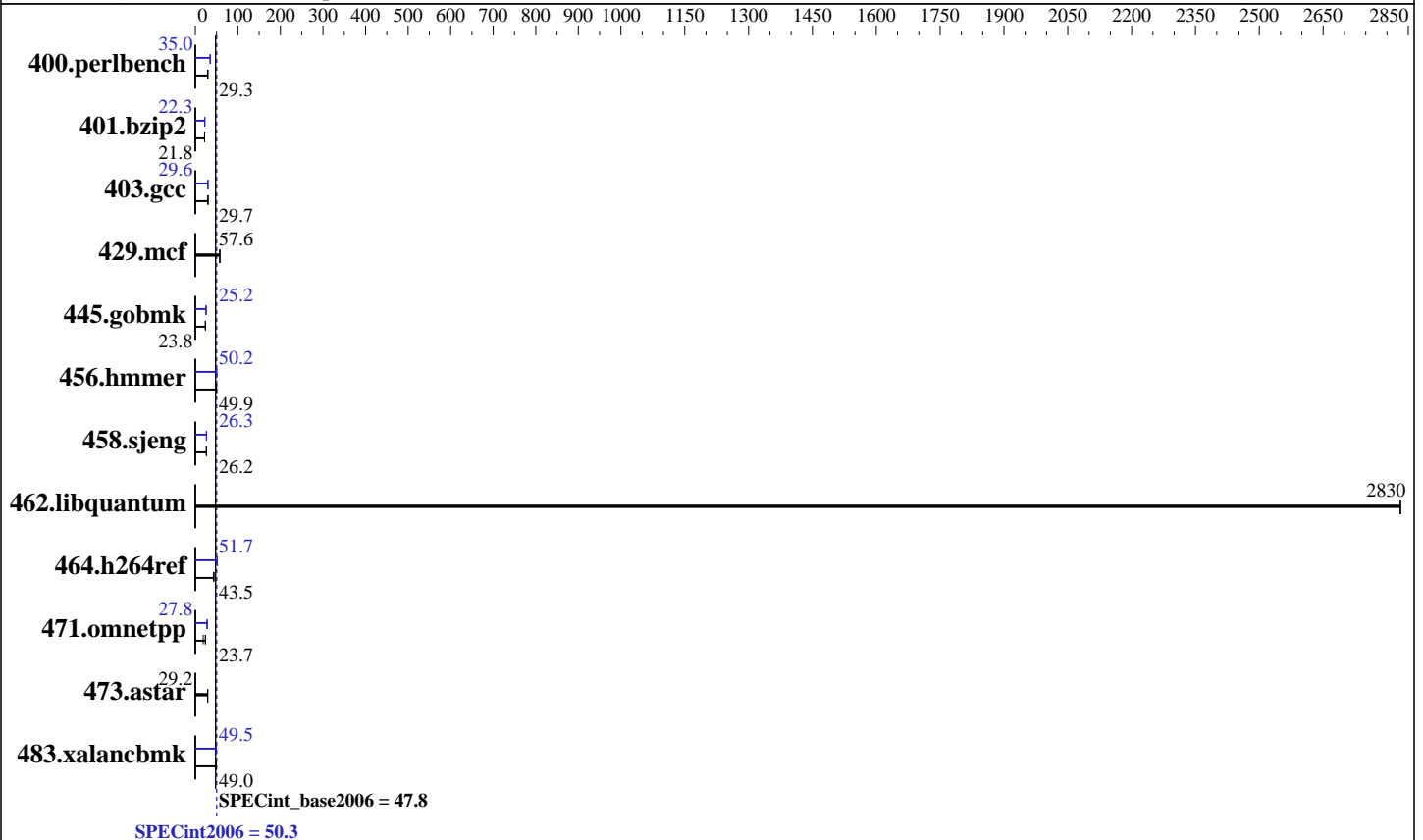
Test date: Sep-2012

Test sponsor: Acer Incorporated

Hardware Availability: Jun-2012

Tested by: Acer Incorporated

Software Availability: Dec-2011



Hardware

CPU Name: Intel Xeon E5-2670
 CPU Characteristics: Intel Turbo Boost Technology up to 3.30 GHz
 CPU MHz: 2600
 FPU: Integrated
 CPU(s) enabled: 16 cores, 2 chips, 8 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: 20 MB I+D on chip per chip
 Other Cache: None
 Memory: 128 GB (16 x 8 GB 2Rx4 PC3L-10600R-9, ECC)
 Disk Subsystem: 1 x 600 GB SAS, 10K RPM
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.2 (Santiago)
 2.6.32-220.el6.x86_64
 Compiler: C/C++: Version 12.1.0.225 of Intel C++ Studio XE for Linux
 Auto Parallel: Yes
 File System: ext4
 System State: Run level 3 (multi-user)
 Base Pointers: 32/64-bit
 Peak Pointers: 32/64-bit
 Other Software: Microquill SmartHeap V9.01



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

| | | |
|------------------------------|--------------------|------|
| Acer Incorporated | SPECint2006 = | 50.3 |
| Acer AR360 F2 (Xeon E5-2670) | SPECint_base2006 = | 47.8 |

| | |
|---------------------------------|---------------------------------|
| CPU2006 license: 97 | Test date: Sep-2012 |
| Test sponsor: Acer Incorporated | Hardware Availability: Jun-2012 |
| Tested by: Acer Incorporated | Software Availability: Dec-2011 |

Results Table

| Benchmark | Base | | | | | | Peak | | | | | |
|----------------|--------------------|--------------------|-------------------|--------------------|-------------------|--------------------|--------------------|--------------------|-------------------|--------------------|-------------------|--------------------|
| | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio |
| 400.perlbench | 334 | 29.2 | 331 | 29.5 | <u>333</u> | <u>29.3</u> | 279 | 35.1 | 279 | 35.0 | <u>279</u> | <u>35.0</u> |
| 401.bzip2 | 441 | 21.9 | 442 | 21.8 | <u>442</u> | <u>21.8</u> | 433 | 22.3 | 432 | 22.4 | <u>433</u> | <u>22.3</u> |
| 403.gcc | <u>271</u> | <u>29.7</u> | 271 | 29.7 | 270 | 29.8 | 271 | 29.7 | <u>272</u> | <u>29.6</u> | 272 | 29.6 |
| 429.mcf | 158 | 57.8 | <u>158</u> | <u>57.6</u> | 159 | 57.4 | 158 | 57.8 | <u>158</u> | <u>57.6</u> | 159 | 57.4 |
| 445.gobmk | 440 | 23.8 | 440 | 23.8 | <u>440</u> | <u>23.8</u> | 416 | 25.2 | 416 | 25.2 | <u>416</u> | <u>25.2</u> |
| 456.hammer | 187 | 49.9 | <u>187</u> | <u>49.9</u> | 187 | 49.9 | 186 | 50.2 | 186 | 50.1 | <u>186</u> | <u>50.2</u> |
| 458.sjeng | 462 | 26.2 | 462 | 26.2 | <u>462</u> | <u>26.2</u> | 459 | 26.4 | 461 | 26.3 | <u>460</u> | <u>26.3</u> |
| 462.libquantum | <u>7.32</u> | <u>2830</u> | 7.32 | 2830 | 7.32 | 2830 | <u>7.32</u> | <u>2830</u> | 7.32 | 2830 | 7.32 | 2830 |
| 464.h264ref | 509 | 43.5 | <u>508</u> | <u>43.5</u> | 508 | 43.5 | <u>428</u> | <u>51.7</u> | 429 | 51.6 | 427 | 51.9 |
| 471.omnetpp | <u>263</u> | <u>23.7</u> | 262 | 23.8 | 338 | 18.5 | 226 | 27.7 | <u>225</u> | <u>27.8</u> | 225 | 27.8 |
| 473.astar | 241 | 29.2 | <u>241</u> | <u>29.2</u> | 242 | 29.0 | 241 | 29.2 | <u>241</u> | <u>29.2</u> | 242 | 29.0 |
| 483.xalancbmk | 140 | 49.3 | <u>141</u> | <u>49.0</u> | 142 | 48.6 | 139 | 49.5 | <u>140</u> | <u>49.5</u> | 140 | 49.4 |

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

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes

```

Sysinfo program /usr/cpu2006/config/sysinfo.rev6800
$Rev: 6800 $ $Date:: 2011-10-11 #$ 6f2ebdff5032aaa42e583f96b07f99d3
running on spec Wed Sep 12 19:47:02 2012

```

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:
<http://www.spec.org/cpu2006/Docs/config.html#sysinfo>

```

From /proc/cpuinfo
model name : Intel(R) Xeon(R) CPU E5-2670 0 @ 2.60GHz
 2 "physical id"s (chips)
 32 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The
following excerpts from /proc/cpuinfo might not be reliable. Use with
caution.)
cpu cores : 8
siblings : 16
physical 0: cores 0 1 2 3 4 5 6 7
physical 1: cores 0 1 2 3 4 5 6 7
cache size : 20480 KB

```

```

From /proc/meminfo
MemTotal:      132269728 kB

```

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

| | | |
|-------------------------------------|---------------------------|-------------|
| Acer Incorporated | SPECint2006 = | 50.3 |
| Acer AR360 F2 (Xeon E5-2670) | SPECint_base2006 = | 47.8 |

| | |
|--|--|
| CPU2006 license: 97 | Test date: Sep-2012 |
| Test sponsor: Acer Incorporated | Hardware Availability: Jun-2012 |
| Tested by: Acer Incorporated | Software Availability: Dec-2011 |

Platform Notes (Continued)

```
HugePages_Total: 0
Hugepagesize: 2048 kB
```

```
/usr/bin/lsb_release -d
Red Hat Enterprise Linux Server release 6.2 (Santiago)
```

```
From /etc/*release* /etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server
```

```
uname -a:
Linux spec 2.6.32-220.el6.x86_64 #1 SMP Wed Nov 9 08:03:13 EST 2011 x86_64
x86_64 x86_64 GNU/Linux
```

```
run-level 3 Sep 10 11:48
```

```
SPEC is set to: /usr/cpu2006
Filesystem      Type      Size  Used Avail Use% Mounted on
/dev/sdal        ext4      397G   65G  312G  18% /
```

Additional information from dmidecode:

```
Memory:
14x Hynix Semiconducto HMT31GR7CFR4A 8 GB 1333 MHz 1 rank
2x Hynix Semiconductor HMT31GR7CFR4A- 8 GB 1333 MHz 1 rank
```

(End of data from sysinfo program)

General Notes

Environment variables set by runspec before the start of the run:

```
KMP_AFFINITY = "granularity=fine,compact,1,0"
LD_LIBRARY_PATH = "/usr/cpu2006/libs/32:/usr/cpu2006/libs/64"
OMP_NUM_THREADS = "16"
```

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RHEL5.5
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
runspec command invoked through numactl i.e.:
numactl --interleave=all runspec <etc>
The Acer AR360 F2 and AR380 F2 are electronically equivalent.
This result was measured on Acer AR380 F2.

Base Compiler Invocation

C benchmarks:
icc -m64

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

| | | |
|------------------------------|--------------------|------|
| Acer Incorporated | SPECint2006 = | 50.3 |
| Acer AR360 F2 (Xeon E5-2670) | SPECint_base2006 = | 47.8 |

| | |
|---------------------------------|---------------------------------|
| CPU2006 license: 97 | Test date: Sep-2012 |
| Test sponsor: Acer Incorporated | Hardware Availability: Jun-2012 |
| Tested by: Acer Incorporated | Software Availability: Dec-2011 |

Base Compiler Invocation (Continued)

C++ benchmarks:
icpc -m64

Base Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
 401.bzip2: -DSPEC_CPU_LP64
 403.gcc: -DSPEC_CPU_LP64
 429.mcf: -DSPEC_CPU_LP64
 445.gobmk: -DSPEC_CPU_LP64
 456.hmmer: -DSPEC_CPU_LP64
 458.sjeng: -DSPEC_CPU_LP64
 462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
 464.h264ref: -DSPEC_CPU_LP64
 471.omnetpp: -DSPEC_CPU_LP64
 473.astar: -DSPEC_CPU_LP64
 483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
-xAVX -ipo -O3 -no-prec-div -parallel -opt-prefetch -auto-p32

C++ benchmarks:
-xAVX -ipo -O3 -no-prec-div -opt-prefetch -auto-p32 -Wl,-z,muldefs
-L/smartheap -lsmartheap64

Base Other Flags

C benchmarks:
403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):
icc -m64

400.perlbench: icc -m32

445.gobmk: icc -m32

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

| | | |
|------------------------------|--------------------|------|
| Acer Incorporated | SPECint2006 = | 50.3 |
| Acer AR360 F2 (Xeon E5-2670) | SPECint_base2006 = | 47.8 |

| | |
|---------------------------------|---------------------------------|
| CPU2006 license: 97 | Test date: Sep-2012 |
| Test sponsor: Acer Incorporated | Hardware Availability: Jun-2012 |
| Tested by: Acer Incorporated | Software Availability: Dec-2011 |

Peak Compiler Invocation (Continued)

464.h264ref: icc -m32

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
 403.gcc: -DSPEC_CPU_LP64
 429.mcf: -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

Peak Optimization Flags

C benchmarks:

400.perlbench: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
 -no-prec-div(pass 2) -prof-use(pass 2) -opt-prefetch
 -ansi-alias

401.bzip2: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
 -no-prec-div -prof-use(pass 2) -auto-ilp32 -opt-prefetch
 -ansi-alias

403.gcc: -xAVX -ipo -O3 -no-prec-div -inline-calloc
 -opt-malloc-options=3 -auto-ilp32

429.mcf: basepeak = yes

445.gobmk: -xAVX(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
 -ansi-alias

456.hmmer: -xAVX -ipo -O3 -no-prec-div -unroll2 -auto-ilp32
 -ansi-alias

458.sjeng: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
 -no-prec-div(pass 2) -prof-use(pass 2) -unroll4

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

| | | |
|------------------------------|--------------------|------|
| Acer Incorporated | SPECint2006 = | 50.3 |
| Acer AR360 F2 (Xeon E5-2670) | SPECint_base2006 = | 47.8 |

| | |
|--|--|
| CPU2006 license: 97 | Test date: Sep-2012 |
| Test sponsor: Acer Incorporated | Hardware Availability: Jun-2012 |
| Tested by: Acer Incorporated | Software Availability: Dec-2011 |

Peak Optimization Flags (Continued)

462.libquantum: basepeak = yes

464.h264ref: -xAVX(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2)
-no-prec-div(pass 2) -prof-use(pass 2) -unroll2
-ansi-alias

C++ benchmarks:

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

473.astar: basepeak = yes

483.xalancbmk: -xAVX -ipo -O3 -no-prec-div -opt-prefetch -ansi-alias
-Wl,-z,muldefs -L/smartheap -lsmartheap

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-ic12.1-official-linux64.20111122.html>

You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.xml>

SPEC and SPECint are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.2.
Report generated on Thu Jul 24 12:50:39 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 9 October 2012.