



SPEC[®] CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Acer Incorporated

SPECint[®]_rate2006 = 706

Altos R380 F3 (Intel Xeon E5-2643 v3)

SPECint_rate_base2006 = 672

CPU2006 license: 97

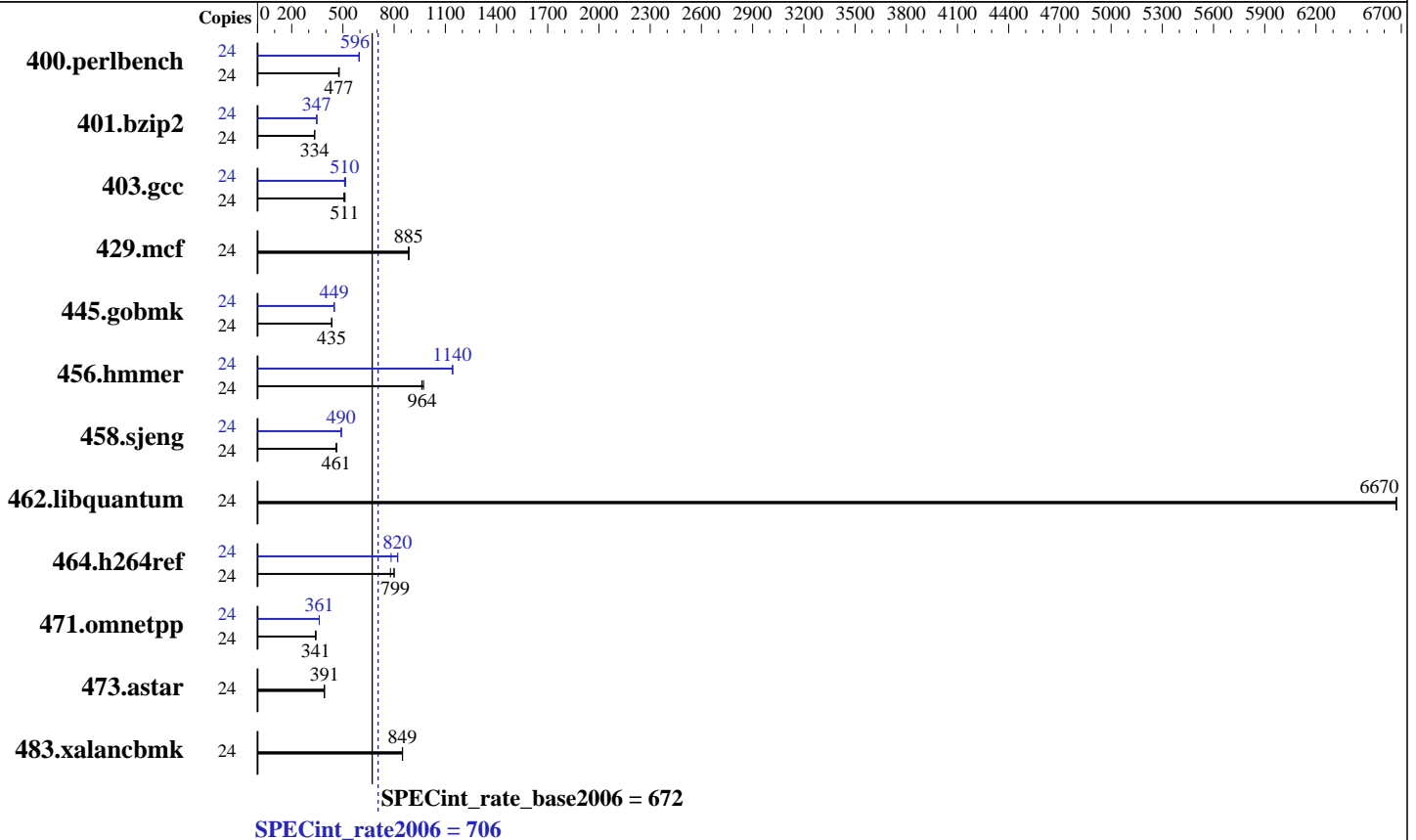
Test date: May-2016

Test sponsor: Acer Incorporated

Hardware Availability: May-2015

Tested by: Acer Incorporated

Software Availability: Aug-2015



Hardware

CPU Name: Intel Xeon E5-2643 v3
 CPU Characteristics: Intel Turbo Boost Technology up to 3.70 GHz
 CPU MHz: 3400
 FPU: Integrated
 CPU(s) enabled: 12 cores, 2 chips, 6 cores/chip, 2 threads/core
 CPU(s) orderable: 1,2 chip
 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 (8 x 16 GB 2Rx4 PC4-2133P-R)
 Disk Subsystem: 1 x 1000 SATA , 7200 RPM
 Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 7.0 (Maipo)
 3.10.0-123.el7.x86_64
 Compiler: C/C++: Version 16.0.0.101 of Intel C++ Studio XE for Linux
 Auto Parallel: No
 File System: xfs
 System State: Run level 3 (multi-user)
 Base Pointers: 32-bit
 Peak Pointers: 32/64-bit
 Other Software: Microquill SmartHeap V10.2



SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Acer Incorporated

SPECint_rate2006 = 706

Altos R380 F3 (Intel Xeon E5-2643 v3)

SPECint_rate_base2006 = 672

CPU2006 license: 97

Test date: May-2016

Test sponsor: Acer Incorporated

Hardware Availability: May-2015

Tested by: Acer Incorporated

Software Availability: Aug-2015

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	24	490	478	<u>492</u>	<u>477</u>	494	475	24	395	594	393	596	<u>393</u>	<u>596</u>
401.bzip2	24	692	335	695	333	<u>693</u>	<u>334</u>	24	669	346	667	347	<u>668</u>	<u>347</u>
403.gcc	24	<u>378</u>	<u>511</u>	377	512	382	506	24	379	510	375	516	<u>379</u>	<u>510</u>
429.mcf	24	247	885	247	887	<u>247</u>	<u>885</u>	24	247	885	247	887	<u>247</u>	<u>885</u>
445.gobmk	24	<u>579</u>	<u>435</u>	579	435	579	435	24	<u>561</u>	<u>449</u>	560	449	561	448
456.hammer	24	233	962	<u>232</u>	<u>964</u>	230	973	24	<u>196</u>	<u>1140</u>	196	1140	196	1140
458.sjeng	24	<u>629</u>	<u>461</u>	626	464	630	461	24	592	491	592	490	<u>592</u>	<u>490</u>
462.libquantum	24	74.5	6670	74.5	6670	<u>74.5</u>	<u>6670</u>	24	74.5	6670	74.5	6670	<u>74.5</u>	<u>6670</u>
464.h264ref	24	<u>664</u>	<u>799</u>	682	778	664	800	24	<u>648</u>	<u>820</u>	679	782	647	821
471.omnetpp	24	<u>440</u>	<u>341</u>	440	341	440	341	24	415	362	<u>415</u>	<u>361</u>	415	361
473.astar	24	430	392	431	391	<u>430</u>	<u>391</u>	24	430	392	431	391	<u>430</u>	<u>391</u>
483.xalancbmk	24	195	849	<u>195</u>	<u>849</u>	195	848	24	195	849	<u>195</u>	<u>849</u>	195	848

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

Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes

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

Platform Notes

Sysinfo program /usr/cpu2006/config/sysinfo.rev6914
\$Rev: 6914 \$ \$Date:: 2014-06-25 #\$ e3fbb8667b5a285932ceab81e28219e1
running on localhost.localdomain Wed May 25 13:39:31 2016

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 E5-2643 v3 @ 3.40GHz
 2 "physical id"s (chips)
 24 "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 : 6
siblings  : 12
```

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Acer Incorporated

SPECint_rate2006 = 706

Altos R380 F3 (Intel Xeon E5-2643 v3)

SPECint_rate_base2006 = 672

CPU2006 license: 97

Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: May-2016

Hardware Availability: May-2015

Software Availability: Aug-2015

Platform Notes (Continued)

```
physical 0: cores 0 1 2 3 4 5
physical 1: cores 0 1 2 3 4 5
cache size : 20480 KB
```

```
From /proc/meminfo
MemTotal:      131747784 kB
HugePages_Total:    0
Hugepagesize:    2048 kB
```

```
From /etc/*release* /etc/*version*
os-release:
NAME="Red Hat Enterprise Linux Server"
VERSION="7.0 (Maipo)"
ID="rhel"
ID_LIKE="fedora"
VERSION_ID="7.0"
PRETTY_NAME="Red Hat Enterprise Linux Server 7.0 (Maipo)"
ANSI_COLOR="0;31"
CPE_NAME="cpe:/o:redhat:enterprise_linux:7.0:GA:server"
redhat-release: Red Hat Enterprise Linux Server release 7.0 (Maipo)
system-release: Red Hat Enterprise Linux Server release 7.0 (Maipo)
system-release-cpe: cpe:/o:redhat:enterprise_linux:7.0:ga:server
```

```
uname -a:
Linux localhost.localdomain 3.10.0-123.el7.x86_64 #1 SMP Mon May 5 11:16:57
EDT 2014 x86_64 x86_64 x86_64 GNU/Linux
```

```
run-level 3 May 25 13:37
```

```
SPEC is set to: /usr/cpu2006
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/mapper/rhel-root xfs  831G  374G  458G  45% /
```

Additional information from dmidecode:

Warning: Use caution when you interpret this section. The 'dmidecode' program reads system data which is "intended to allow hardware to be accurately determined", but the intent may not be met, as there are frequent changes to hardware, firmware, and the "DMTF SMBIOS" standard.

BIOS Intel Corporation SE5C610.86B.01.01.0015.012820160943 01/28/2016

Memory:

16x NO DIMM NO DIMM

8x Samsung M393A2G40DB1-CRC 16 GB 2 rank 2400 MHz, configured at 2134 MHz

(End of data from sysinfo program)

General Notes

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

LD_LIBRARY_PATH = "/usr/cpu2006/libs/32:/usr/cpu2006/libs/64:/usr/cpu2006/sh"

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Acer Incorporated

SPECint_rate2006 = 706

Altos R380 F3 (Intel Xeon E5-2643 v3)

SPECint_rate_base2006 = 672

CPU2006 license: 97

Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: May-2016

Hardware Availability: May-2015

Software Availability: Aug-2015

General Notes (Continued)

Binaries compiled on a system with 1x Intel Core i5-4670K CPU + 32GB memory using RedHat EL 7.1
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/transparent_hugepage/enabled
Filesystem page cache cleared with:
echo 1> /proc/sys/vm/drop_caches
runspec command invoked through numactl i.e.:
numactl --interleave=all runspec <etc>

Base Compiler Invocation

C benchmarks:

```
icc -m32 -L/opt/intel/compilers_and_libraries_2016/linux/compiler/lib/ia32_lin
```

C++ benchmarks:

```
icpc -m32 -L/opt/intel/compilers_and_libraries_2016/linux/compiler/lib/ia32_lin
```

Base Portability Flags

```
400.perlbench: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX_IA32
401.bzip2: -D_FILE_OFFSET_BITS=64
403.gcc: -D_FILE_OFFSET_BITS=64
429.mcf: -D_FILE_OFFSET_BITS=64
445.gobmk: -D_FILE_OFFSET_BITS=64
456.hmmcr: -D_FILE_OFFSET_BITS=64
458.sjeng: -D_FILE_OFFSET_BITS=64
462.libquantum: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX
464.h264ref: -D_FILE_OFFSET_BITS=64
471.omnetpp: -D_FILE_OFFSET_BITS=64
473.astar: -D_FILE_OFFSET_BITS=64
483.xalancbmk: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX
```

Base Optimization Flags

C benchmarks:

```
-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
-opt-mem-layout-trans=3
```

C++ benchmarks:

```
-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
-opt-mem-layout-trans=3 -Wl,-z,muldefs -L/sh -lsmarheap
```



SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Acer Incorporated

SPECint_rate2006 = 706

Altos R380 F3 (Intel Xeon E5-2643 v3)

SPECint_rate_base2006 = 672

CPU2006 license: 97

Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: May-2016

Hardware Availability: May-2015

Software Availability: Aug-2015

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):

icc -m32 -L/opt/intel/compilers_and_libraries_2016/linux/compiler/lib/ia32_lin

400.perlbench: icc -m64

401.bzip2: icc -m64

456.hmmer: icc -m64

458.sjeng: icc -m64

C++ benchmarks:

icpc -m32 -L/opt/intel/compilers_and_libraries_2016/linux/compiler/lib/ia32_lin

Peak Portability Flags

400.perlbench: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64

401.bzip2: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LP64

403.gcc: -D_FILE_OFFSET_BITS=64

429.mcf: -D_FILE_OFFSET_BITS=64

445.gobmk: -D_FILE_OFFSET_BITS=64

456.hmmer: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LP64

458.sjeng: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LP64

462.libquantum: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX

464.h264ref: -D_FILE_OFFSET_BITS=64

471.omnetpp: -D_FILE_OFFSET_BITS=64

473.astar: -D_FILE_OFFSET_BITS=64

483.xalanbmk: -D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)

-ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)

-par-num-threads=1(pass 1) -prof-use(pass 2) -auto-ilp32

Continued on next page

Standard Performance Evaluation Corporation

info@spec.org

http://www.spec.org/

Page 5



SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Acer Incorporated

SPECint_rate2006 = 706

Altos R380 F3 (Intel Xeon E5-2643 v3)

SPECint_rate_base2006 = 672

CPU2006 license: 97

Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: May-2016

Hardware Availability: May-2015

Software Availability: Aug-2015

Peak Optimization Flags (Continued)

401.bzip2: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)
-ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)
-par-num-threads=1(pass 1) -prof-use(pass 2) -opt-prefetch
-auto-ilp32 -ansi-alias

403.gcc: -xCORE-AVX2 -ipo -O3 -no-prec-div

429.mcf: basepeak = yes

445.gobmk: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)
-prof-use(pass 2) -par-num-threads=1(pass 1) -ansi-alias
-opt-mem-layout-trans=3

456.hmmmer: -xCORE-AVX2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32

458.sjeng: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)
-ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)
-par-num-threads=1(pass 1) -prof-use(pass 2) -unroll4
-auto-ilp32

462.libquantum: basepeak = yes

464.h264ref: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)
-ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)
-par-num-threads=1(pass 1) -prof-use(pass 2) -unroll2
-ansi-alias

C++ benchmarks:

471.omnetpp: -xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)
-ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)
-par-num-threads=1(pass 1) -prof-use(pass 2) -ansi-alias
-opt-ra-region-strategy=block -Wl,-z,muldefs
-L/sh -lsmartheap

473.astar: basepeak = yes

483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca



SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Acer Incorporated

SPECint_rate2006 = 706

Altos R380 F3 (Intel Xeon E5-2643 v3)

SPECint_rate_base2006 = 672

CPU2006 license: 97

Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: May-2016

Hardware Availability: May-2015

Software Availability: Aug-2015

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

<http://www.spec.org/cpu2006/flags/Intel-ic16.0-official-linux64.html>

<http://www.spec.org/cpu2006/flags/Default-Platform-Flags.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic16.0-official-linux64.xml>

<http://www.spec.org/cpu2006/flags/Default-Platform-Flags.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 Wed Oct 12 16:33:30 2016 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 12 October 2016.