



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint®2006 = 35.3

Tecal RH5885 V2 (Intel Xeon E7-8867L)

SPECint_base2006 = 32.6

CPU2006 license: 3175

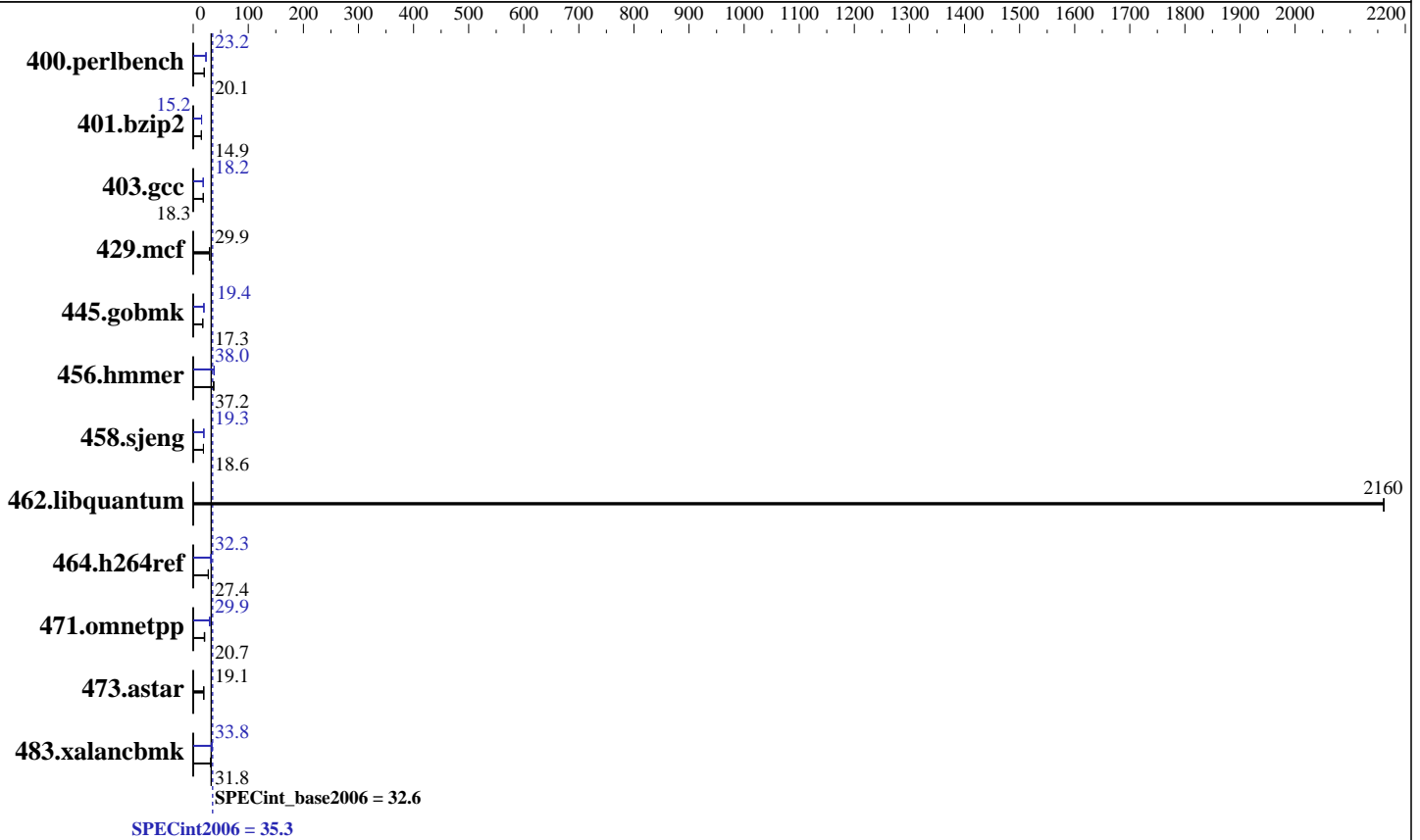
Test sponsor: Huawei

Tested by: Huawei

Test date: Feb-2013

Hardware Availability: Oct-2012

Software Availability: Oct-2012



Hardware

CPU Name: Intel Xeon E7-8867L
 CPU Characteristics: Intel Turbo Boost Technology up to 2.53 GHz
 CPU MHz: 2133
 FPU: Integrated
 CPU(s) enabled: 40 cores, 4 chips, 10 cores/chip
 CPU(s) orderable: 2,4 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: 30 MB I+D on chip per chip
 Other Cache: None
 Memory: 1 TB (64 x 16 GB 4Rx4 PC3-10600R-9, ECC, running at 1066 MHz)
 Disk Subsystem: 1 x 500 GB SATA, 7200 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 13.0.0.079 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

Huawei

SPECint2006 = 35.3

Tecal RH5885 V2 (Intel Xeon E7-8867L)

SPECint_base2006 = 32.6

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Feb-2013

Hardware Availability: Oct-2012

Software Availability: Oct-2012

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	486	20.1	487	20.1	486	20.1	420	23.2	421	23.2	420	23.3
401.bzip2	650	14.9	648	14.9	649	14.9	634	15.2	635	15.2	635	15.2
403.gcc	438	18.4	439	18.3	440	18.3	442	18.2	442	18.2	442	18.2
429.mcf	305	29.9	305	29.9	308	29.6	305	29.9	305	29.9	308	29.6
445.gobmk	604	17.4	605	17.3	605	17.3	538	19.5	540	19.4	540	19.4
456.hammer	251	37.2	251	37.2	251	37.2	245	38.0	245	38.0	245	38.0
458.sjeng	650	18.6	649	18.6	650	18.6	626	19.3	625	19.3	626	19.3
462.libquantum	9.59	2160	9.59	2160	9.59	2160	9.59	2160	9.59	2160	9.59	2160
464.h264ref	806	27.5	807	27.4	808	27.4	684	32.3	684	32.4	684	32.3
471.omnetpp	311	20.1	300	20.8	301	20.7	209	29.9	206	30.3	209	29.8
473.astar	367	19.1	367	19.1	365	19.2	367	19.1	367	19.1	365	19.2
483.xalancbmk	217	31.8	218	31.7	217	31.8	204	33.8	204	33.8	204	33.9

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

BIOS configuration:

Intel Hyper-Threading set to Disabled

Power Technology set to Custom, Performance/Watt set to Traditional

Sysinfo program /home/cpu2006/config/sysinfo.rev6818

\$Rev: 6818 \$ \$Date:: 2012-07-17 # \$ 5569a0425e2ad530534e4c79a46e4d28

running on RH5885-24 Tue Feb 5 10:44:36 2013

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 E7-L8867 @ 2.13GHz

4 "physical id"s (chips)

40 "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 : 10

siblings : 10

physical 0: cores 0 1 2 8 9 16 17 18 24 25

physical 1: cores 0 1 2 8 9 16 17 18 24 25

physical 2: cores 0 1 2 8 9 16 17 18 24 25

Continued on next page

Standard Performance Evaluation Corporation

info@spec.org

<http://www.spec.org/>

Page 2



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint2006 = 35.3

Tecal RH5885 V2 (Intel Xeon E7-8867L)

SPECint_base2006 = 32.6

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Feb-2013

Hardware Availability: Oct-2012

Software Availability: Oct-2012

Platform Notes (Continued)

physical 3: cores 0 1 2 8 9 16 17 18 24 25
cache size : 30720 KB

```
From /proc/meminfo
MemTotal:      1058808572 kB
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 RH5885-24 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 Feb 5 10:40

```
SPEC is set to: /home/cpu2006
Filesystem      Type      Size  Used Avail Use% Mounted on
/dev/mapper/vg_rh588524-lv_home
                ext4      409G  14G  375G   4% /home
```

```
Additional information from dmidecode:
BIOS American Megatrends Inc. RGPUC-BIOS-V023 12/17/2012
Memory:
64x 16 GB
64x Hyundai HMT42GR7BMR4C-H9 16 GB 1067 MHz 4 rank
```

```
(End of data from sysinfo program)
Descriptions about memory generated by sysinfo are not correct,
only 64 DIMMs are installed not 128, see descriptions below.
Memory:
64x Hyundai HMT42GR7BMR4C-H9 16 GB 1067 MHz 4 rank
```

General Notes

Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,compact,1,0"
LD_LIBRARY_PATH = "/home/cpu2006/libs/32:/home/cpu2006/libs/64"
OMP_NUM_THREADS = "40"

Binaries compiled on a system with 4x Xeon E7-8870 CPU + 1024GB memory using RHEL6.2
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
runspec command invoked through numactl i.e.:

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint2006 = 35.3

Tecal RH5885 V2 (Intel Xeon E7-8867L)

SPECint_base2006 = 32.6

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Feb-2013

Hardware Availability: Oct-2012

Software Availability: Oct-2012

General Notes (Continued)

numactl --interleave=all runspec <etc>

Base Compiler Invocation

C benchmarks:

icc -m64

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.hmmmer: -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:

-xSSE4.2 -ipo -O3 -no-prec-div -parallel -opt-prefetch -auto-p32

C++ benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -auto-p32
-Wl,-z,muldefs -L/home/cpu2006/smartheap -lsmartheap64

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint2006 = 35.3

Tecal RH5885 V2 (Intel Xeon E7-8867L)

SPECint_base2006 = 32.6

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Feb-2013

Hardware Availability: Oct-2012

Software Availability: Oct-2012

Peak Compiler Invocation

C benchmarks (except as noted below):

icc -m64

400.perlbench: icc -m32

445.gobmk: icc -m32

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.hmmmer: -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: -xSSE4.2(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: -xSSE4.2(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: -xSSE4.2 -ipo -O3 -no-prec-div -inline-calloc
-opt-malloc-options=3 -auto-ilp32

429.mcf: basepeak = yes

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
-ansi-alias

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint2006 = 35.3

Tecal RH5885 V2 (Intel Xeon E7-8867L)

SPECint_base2006 = 32.6

CPU2006 license: 3175

Test date: Feb-2013

Test sponsor: Huawei

Hardware Availability: Oct-2012

Tested by: Huawei

Software Availability: Oct-2012

Peak Optimization Flags (Continued)

456.hmmcr: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32
-ansi-alias

458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-unroll4

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) -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)
-opt-ra-region-strategy=block -ansi-alias
-Wl,-z,muldefs -L/home/cpu2006/smartheap -lsmartheap

473.astar: basepeak = yes

483.xalancbmk: -xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -ansi-alias
-Wl,-z,muldefs -L/home/cpu2006/smartheap -lsmartheap

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

<http://www.spec.org/cpu2006/flags/Huawei-Platform-Settings-revG.20130313.html>

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

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

<http://www.spec.org/cpu2006/flags/Huawei-Platform-Settings-revG.20130313.xml>



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint2006 = 35.3

Tecal RH5885 V2 (Intel Xeon E7-8867L)

SPECint_base2006 = 32.6

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Feb-2013

Hardware Availability: Oct-2012

Software Availability: Oct-2012

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 14:43:13 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 12 March 2013.