



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint®2006 = 37.5

Huawei RH2288 V2 (Intel Xeon E5-2650L)

SPECint_base2006 = 34.9

CPU2006 license: 3175

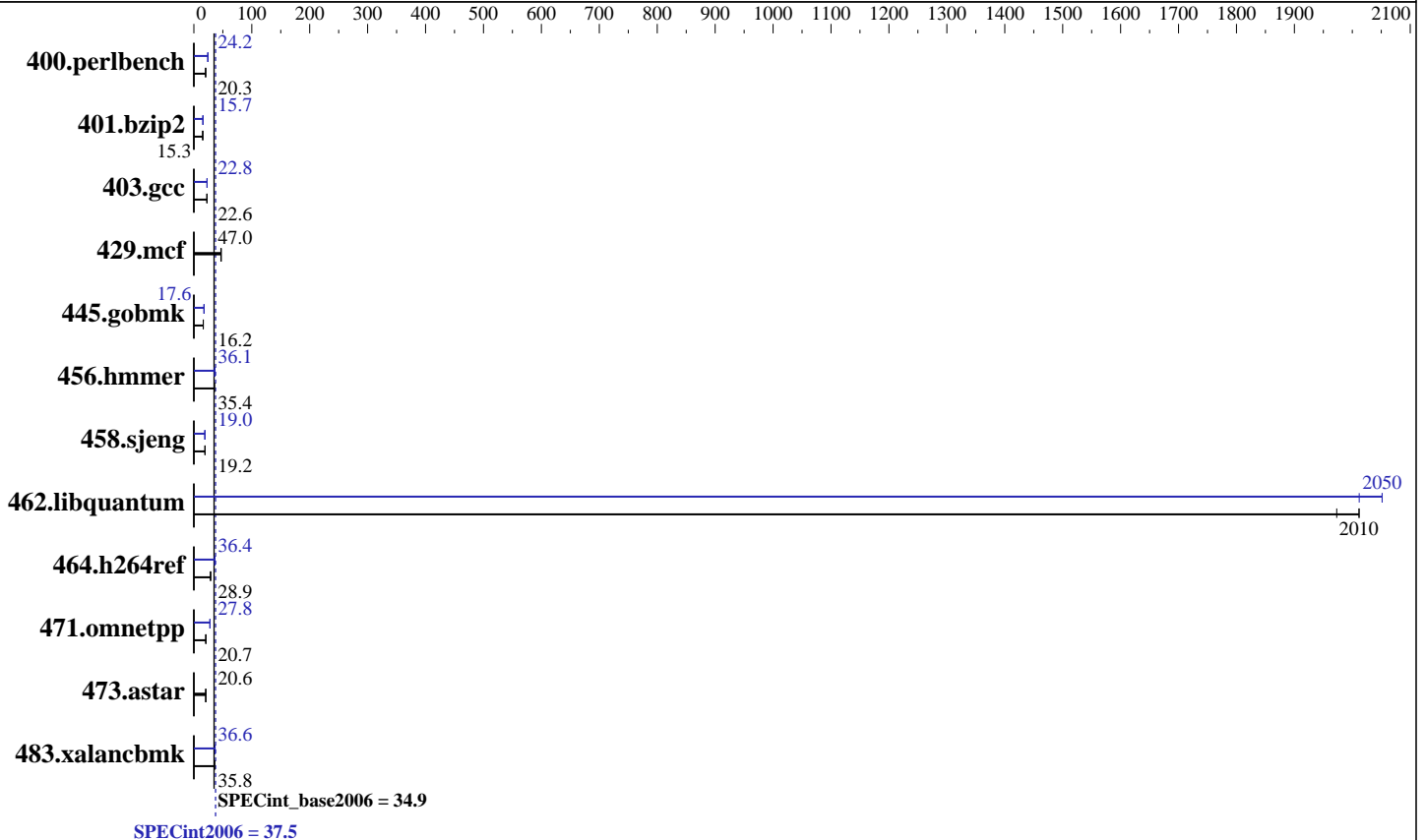
Test sponsor: Huawei

Tested by: Huawei

Test date: Jun-2012

Hardware Availability: Mar-2012

Software Availability: Dec-2011



Hardware

CPU Name: Intel Xeon E5-2650L
 CPU Characteristics: Intel Turbo Boost Technology up to 2.30 GHz
 CPU MHz: 1800
 FPU: Integrated
 CPU(s) enabled: 16 cores, 2 chips, 8 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: 20 MB I+D on chip per chip
 Other Cache: None
 Memory: 128 GB (16 x 8 GB 2Rx4 PC3-12800R-11, ECC)
 Disk Subsystem: 1 x 300 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

Huawei

SPECint2006 = 37.5

Huawei RH2288 V2 (Intel Xeon E5-2650L)

SPECint_base2006 = 34.9

CPU2006 license: 3175
Test sponsor: Huawei
Tested by: Huawei

Test date: Jun-2012
Hardware Availability: Mar-2012
Software Availability: Dec-2011

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	<u>481</u>	<u>20.3</u>	480	20.3	481	20.3	<u>404</u>	<u>24.2</u>	404	24.2	404	24.2
401.bzip2	<u>630</u>	<u>15.3</u>	630	15.3	630	15.3	<u>616</u>	<u>15.7</u>	616	15.7	616	15.7
403.gcc	355	22.7	357	22.6	<u>357</u>	<u>22.6</u>	352	22.9	<u>353</u>	<u>22.8</u>	356	22.6
429.mcf	<u>194</u>	<u>47.0</u>	193	47.2	196	46.6	<u>194</u>	<u>47.0</u>	193	47.2	196	46.6
445.gobmk	<u>647</u>	<u>16.2</u>	647	16.2	647	16.2	<u>597</u>	<u>17.6</u>	597	17.6	597	17.6
456.hmmr	<u>264</u>	<u>35.4</u>	264	35.4	264	35.4	258	36.1	258	36.1	<u>258</u>	<u>36.1</u>
458.sjeng	628	19.3	<u>629</u>	<u>19.2</u>	629	19.2	635	19.0	635	19.1	<u>635</u>	<u>19.0</u>
462.libquantum	10.5	1970	<u>10.3</u>	<u>2010</u>	10.3	2010	10.3	2010	10.1	2050	<u>10.1</u>	<u>2050</u>
464.h264ref	<u>766</u>	<u>28.9</u>	773	28.6	763	29.0	607	36.4	<u>608</u>	<u>36.4</u>	617	35.9
471.omnetpp	303	20.6	<u>302</u>	<u>20.7</u>	302	20.7	226	27.7	224	27.8	<u>224</u>	<u>27.8</u>
473.astar	<u>341</u>	<u>20.6</u>	342	20.5	341	20.6	<u>341</u>	<u>20.6</u>	342	20.5	341	20.6
483.xalancbmk	<u>193</u>	<u>35.8</u>	192	35.9	198	34.9	188	36.7	189	36.5	<u>188</u>	<u>36.6</u>

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"
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
Select only test related files when installing the operating system

Platform Notes

BIOS configuration:
Intel Hyper-Threading set to Disabled
Set Power Efficiency Mode to Performance
Sysinfo program /spec/config/sysinfo.rev6800
\$Rev: 6800 \$ \$Date:: 2011-10-11 #\$ 6f2ebdff5032aaa42e583f96b07f99d3
running on RH62-rebuild Wed Jun 13 09:18:34 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 E5-2650L 0 @ 1.80GHz
2 "physical id"s (chips)
16 "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 : 8

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint2006 = 37.5

Huawei RH2288 V2 (Intel Xeon E5-2650L)

SPECint_base2006 = 34.9

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Jun-2012

Hardware Availability: Mar-2012

Software Availability: Dec-2011

Platform Notes (Continued)

```
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:      132124032 kB
HugePages_Total: 0
Hugepagesize:  2048 kB
```

```
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 RH62-rebuild 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 Jun 13 09:17
```

```
SPEC is set to: /spec
Filesystem      Type      Size  Used Avail Use% Mounted on
/dev/sdal       ext4      289G  77G  198G  28% /
```

Additional information from dmidecode:

(End of data from sysinfo program)

General Notes

```
Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,compact,0,1"
LD_LIBRARY_PATH = "/spec/libs/32:/spec/libs/64"
OMP_NUM_THREADS = "16"
```

```
Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
memory using RHEL6.1
```

Base Compiler Invocation

```
C benchmarks:
icc -m64
```

```
C++ benchmarks:
icpc -m64
```



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint2006 = 37.5

Huawei RH2288 V2 (Intel Xeon E5-2650L)

SPECint_base2006 = 34.9

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Jun-2012

Hardware Availability: Mar-2012

Software Availability: Dec-2011

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/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

464.h264ref: icc -m32

C++ benchmarks (except as noted below):

icpc -m32

473.astar: icpc -m64



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint2006 = 37.5

Huawei RH2288 V2 (Intel Xeon E5-2650L)

SPECint_base2006 = 34.9

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Jun-2012

Hardware Availability: Mar-2012

Software Availability: Dec-2011

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: -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: -xAVX -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

456.hmmer: -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: -xAVX -ipo -O3 -no-prec-div -parallel -opt-prefetch
                -auto-p32

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

```

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Huawei

SPECint2006 = 37.5

Huawei RH2288 V2 (Intel Xeon E5-2650L)

SPECint_base2006 = 34.9

CPU2006 license: 3175

Test sponsor: Huawei

Tested by: Huawei

Test date: Jun-2012

Hardware Availability: Mar-2012

Software Availability: Dec-2011

Peak Optimization Flags (Continued)

471.omnetpp (continued):

-Wl,-z,muldefs -L/smartheap -lsmartheap

473.astar: basepeak = yes

483.xalancbmk: -xSSE4.2 -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 files that were used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20120425.html>

<http://www.spec.org/cpu2006/flags/Huawei-Platform-Settings-revE.20120703.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20120425.xml>

<http://www.spec.org/cpu2006/flags/Huawei-Platform-Settings-revE.20120703.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 10:16:52 2014 by SPEC CPU2006 PS/PDF formatter v6932.

Originally published on 25 July 2012.

Standard Performance Evaluation Corporation

info@spec.org

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