



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECint®2006 = 59.4

PowerEdge T620 (Intel Xeon E5-2637 v2, 3.50 GHz)

SPECint_base2006 = 55.8

CPU2006 license: 55

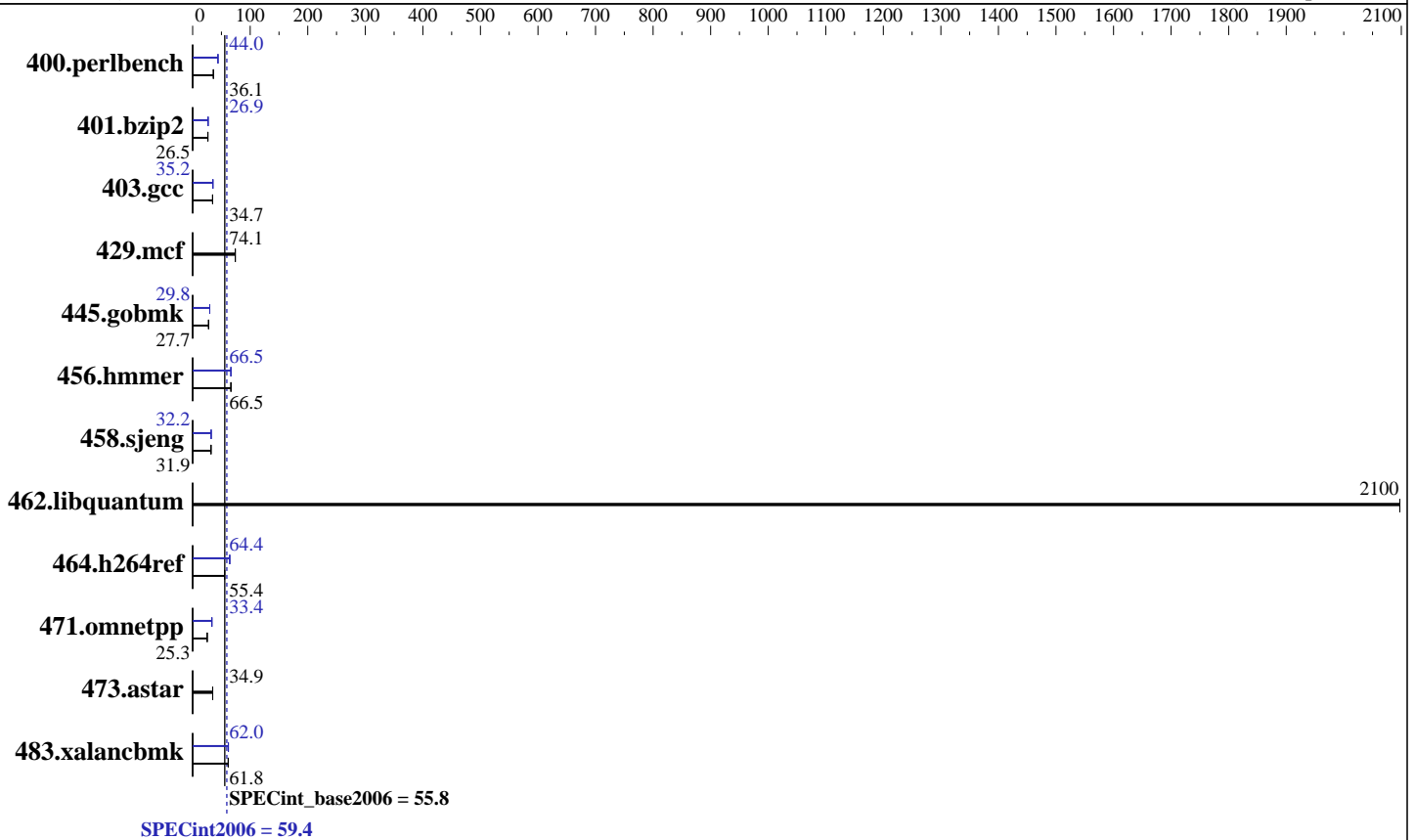
Test date: Sep-2013

Test sponsor: Dell Inc.

Hardware Availability: Sep-2013

Tested by: Dell Inc.

Software Availability: Sep-2013



Hardware

CPU Name: Intel Xeon E5-2637 v2
 CPU Characteristics: Intel Turbo Boost Technology up to 3.80 GHz
 CPU MHz: 3500
 FPU: Integrated
 CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip
 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: 15 MB I+D on chip per chip
 Other Cache: None
 Memory: 256 GB (16 x 16 GB 2Rx4 PC3-14900R-13, ECC)
 Disk Subsystem: 1 x 300 GB 15000 RPM SAS
 Other Hardware: None

Software

Operating System: SUSE Linux Enterprise Server 11 SP3 (x86_64) 3.0.76-0.11-default
 Compiler: C/C++; Version 14.0.0.080 of Intel C++ Studio XE for Linux
 Auto Parallel: Yes
 File System: ext2
 System State: Run level 3 (multi-user)
 Base Pointers: 32/64-bit
 Peak Pointers: 32/64-bit
 Other Software: Microquill SmartHeap V10.0



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECint2006 = 59.4

PowerEdge T620 (Intel Xeon E5-2637 v2, 3.50 GHz)

SPECint_base2006 = 55.8

CPU2006 license: 55
Test sponsor: Dell Inc.
Tested by: Dell Inc.

Test date: Sep-2013
Hardware Availability: Sep-2013
Software Availability: Sep-2013

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	270	36.1	<u>271</u>	<u>36.1</u>	271	36.0	222	44.0	<u>222</u>	<u>44.0</u>	222	44.0
401.bzip2	364	26.5	<u>364</u>	<u>26.5</u>	364	26.5	359	26.8	359	26.9	<u>359</u>	<u>26.9</u>
403.gcc	232	34.7	<u>232</u>	<u>34.7</u>	232	34.6	229	35.2	<u>229</u>	<u>35.2</u>	229	35.2
429.mcf	123	74.1	123	74.0	<u>123</u>	<u>74.1</u>	123	74.1	123	74.0	<u>123</u>	<u>74.1</u>
445.gobmk	379	27.7	379	27.7	<u>379</u>	<u>27.7</u>	<u>353</u>	<u>29.8</u>	353	29.7	353	29.8
456.hammer	140	66.5	140	66.6	<u>140</u>	<u>66.5</u>	140	66.5	140	66.4	<u>140</u>	<u>66.5</u>
458.sjeng	380	31.9	<u>379</u>	<u>31.9</u>	379	31.9	<u>376</u>	<u>32.2</u>	376	32.2	376	32.2
462.libquantum	9.88	2100	<u>9.88</u>	<u>2100</u>	9.88	2100	9.88	2100	<u>9.88</u>	<u>2100</u>	9.88	2100
464.h264ref	400	55.4	<u>399</u>	<u>55.4</u>	398	55.6	343	64.5	<u>343</u>	<u>64.4</u>	344	64.4
471.omnetpp	<u>247</u>	<u>25.3</u>	247	25.4	248	25.2	<u>187</u>	<u>33.4</u>	187	33.4	186	33.5
473.astar	201	34.9	201	34.8	<u>201</u>	<u>34.9</u>	201	34.9	201	34.8	<u>201</u>	<u>34.9</u>
483.xalancbmk	111	62.1	112	61.8	<u>112</u>	<u>61.8</u>	111	62.3	<u>111</u>	<u>62.0</u>	111	62.0

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 settings:
 Virtualization Technology disabled
 Execute Disable disabled
 Logical Processor disabled
 System Profile set to Performance
 Sysinfo program /root/cpu2006.1.2.ic13/config/sysinfo.rev6818
 \$Rev: 6818 \$ \$Date:: 2012-07-17 #\$ e86d102572650a6e4d596a3cee98f191
 running on linux Wed Sep 4 10:52:12 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 E5-2637 v2 @ 3.50GHz
 2 "physical id"s (chips)
 8 "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 : 4
siblings : 4
physical 0: cores 1 2 3 4
```

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECint2006 = 59.4

PowerEdge T620 (Intel Xeon E5-2637 v2, 3.50 GHz)

SPECint_base2006 = 55.8

CPU2006 license: 55

Test date: Sep-2013

Test sponsor: Dell Inc.

Hardware Availability: Sep-2013

Tested by: Dell Inc.

Software Availability: Sep-2013

Platform Notes (Continued)

physical 1: cores 1 2 3 4
cache size : 15360 KB

From /proc/meminfo
MemTotal: 264634596 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

/usr/bin/lsb_release -d
SUSE Linux Enterprise Server 11 (x86_64)

From /etc/*release* /etc/*version*
SuSE-release:
SUSE Linux Enterprise Server 11 (x86_64)
VERSION = 11
PATCHLEVEL = 3

uname -a:
Linux linux 3.0.76-0.11-default #1 SMP Fri Jun 14 08:21:43 UTC 2013 (ccab990)
x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Sep 4 10:49 last=S

SPEC is set to: /root/cpu2006.1.2.ic13
Filesystem Type Size Used Avail Use% Mounted on
/dev/sda2 ext2 267G 42G 225G 16% /

Additional information from dmidecode:
BIOS Dell Inc. 2.0.19 08/30/2013
Memory:
16x 00CE00B300CE M393B2G70CB0-CMA 16 GB 1866 MHz

(End of data from sysinfo program)

General Notes

Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/root/cpu2006.1.2.ic13/libs/32:/root/cpu2006.1.2.ic13/libs/64:/root/cpu2006.1.2.ic13/sh"
OMP_NUM_THREADS = "8"

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/transparent_hugepage/enabled
Filesystem page cache cleared with:
echo 1> /proc/sys/vm/drop_caches



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECint2006 = 59.4

PowerEdge T620 (Intel Xeon E5-2637 v2, 3.50 GHz)

SPECint_base2006 = 55.8

CPU2006 license: 55

Test date: Sep-2013

Test sponsor: Dell Inc.

Hardware Availability: Sep-2013

Tested by: Dell Inc.

Software Availability: Sep-2013

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.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:

-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/sh -lsmartheap64

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):

icc -m64

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECint2006 = 59.4

PowerEdge T620 (Intel Xeon E5-2637 v2, 3.50 GHz)

SPECint_base2006 = 55.8

CPU2006 license: 55

Test date: Sep-2013

Test sponsor: Dell Inc.

Hardware Availability: Sep-2013

Tested by: Dell Inc.

Software Availability: Sep-2013

Peak Compiler Invocation (Continued)

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.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: `-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`

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

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Dell Inc.

SPECint2006 = 59.4

PowerEdge T620 (Intel Xeon E5-2637 v2, 3.50 GHz)

SPECint_base2006 = 55.8

CPU2006 license: 55

Test date: Sep-2013

Test sponsor: Dell Inc.

Hardware Availability: Sep-2013

Tested by: Dell Inc.

Software Availability: Sep-2013

Peak Optimization Flags (Continued)

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/sh -lsmartheap

473.astar: basepeak = yes

483.xalancbmk: -xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -ansi-alias
-Wl,-z,muldefs -L/sh -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-ic14.0-official-linux64.20140128.html>

<http://www.spec.org/cpu2006/flags/Dell-Platform-Settings-V1.2-revB.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-linux64.20140128.xml>

<http://www.spec.org/cpu2006/flags/Dell-Platform-Settings-V1.2-revB.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 19:01:16 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 22 October 2013.