



SPEC® CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Sugon

SPECint®2006 = 44.2

Sugon I840-G25 (Intel Xeon E7-4830 v2)

SPECint_base2006 = 41.6

CPU2006 license: 9046

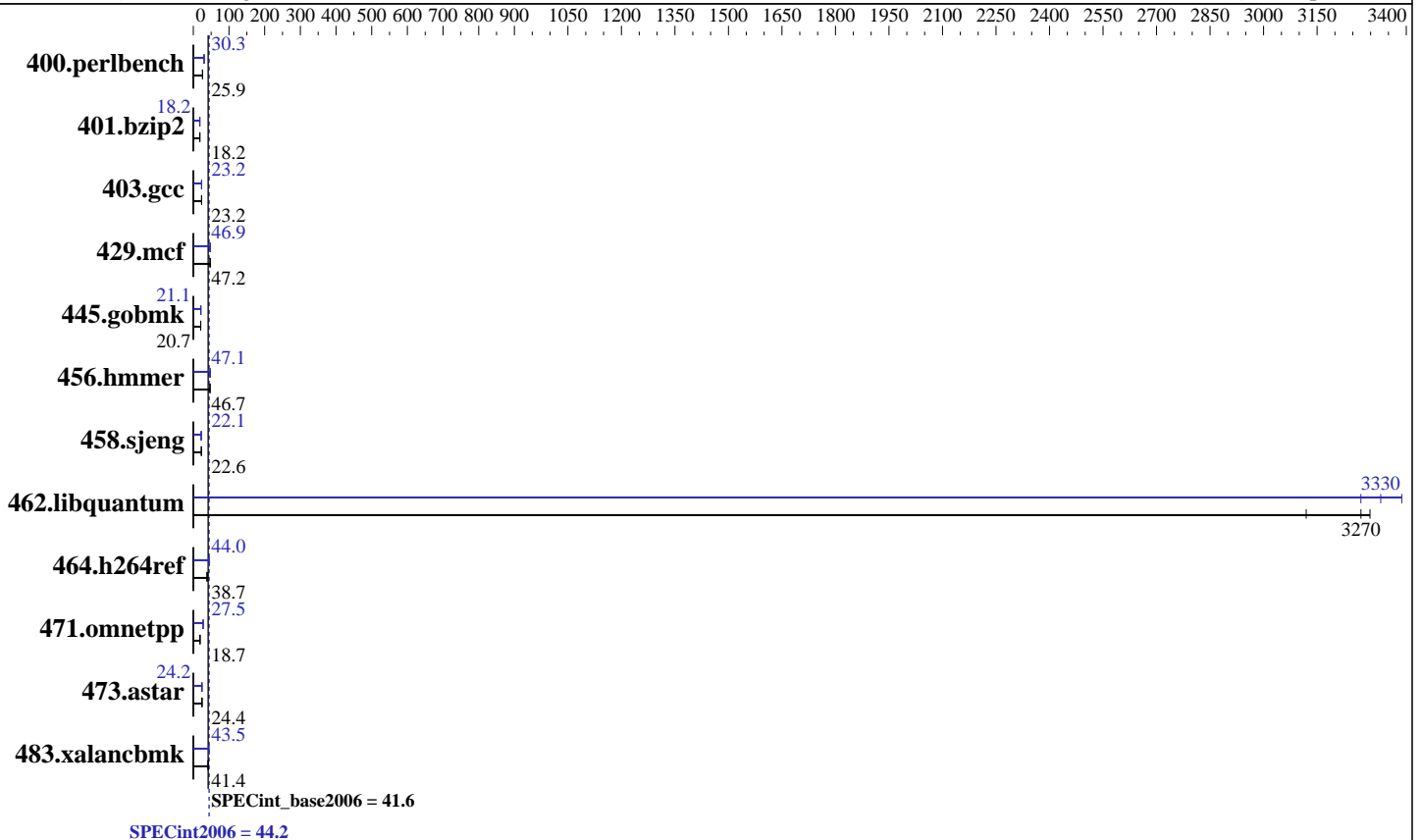
Test date: Jul-2015

Test sponsor: Sugon

Hardware Availability: Mar-2014

Tested by: Sugon

Software Availability: Sep-2014



Hardware

CPU Name: Intel Xeon E7-4830 v2
 CPU Characteristics: Intel Turbo Boost Technology up to 2.70 GHz
 CPU MHz: 2200
 FPU: Integrated
 CPU(s) enabled: 40 cores, 4 chips, 10 cores/chip, 2 threads/core
 CPU(s) orderable: 2,4 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: 256 GB (32 x 8 GB 2Rx4 PC3L-12800R-11, running at 1333 MHz, ECC)
 Disk Subsystem: 1 x 300 GB SAS,10K RPM
 Other Hardware: None

Software

Operating System: SUSE Linux Enterprise Server 12 (x86_64) 3.12.28-4-default
 Compiler: C/C++: Version 15.0.0.090 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 V10.0



SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Sugon

SPECint2006 = 44.2

Sugon I840-G25 (Intel Xeon E7-4830 v2)

SPECint_base2006 = 41.6

CPU2006 license: 9046
Test sponsor: Sugon
Tested by: Sugon

Test date: Jul-2015
Hardware Availability: Mar-2014
Software Availability: Sep-2014

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	378	25.8	378	25.9	377	25.9	323	30.2	322	30.3	322	30.3
401.bzip2	529	18.2	529	18.2	530	18.2	529	18.2	528	18.3	529	18.2
403.gcc	347	23.2	347	23.2	347	23.2	347	23.2	345	23.3	351	22.9
429.mcf	193	47.2	192	47.5	195	46.8	195	46.8	193	47.2	194	46.9
445.gobmk	506	20.7	506	20.7	506	20.7	497	21.1	497	21.1	498	21.1
456.hammer	200	46.7	200	46.7	200	46.7	198	47.1	198	47.1	198	47.1
458.sjeng	535	22.6	535	22.6	535	22.6	547	22.1	547	22.1	547	22.1
462.libquantum	6.64	3120	6.28	3300	6.33	3270	6.23	3330	6.12	3390	6.33	3270
464.h264ref	572	38.7	572	38.7	575	38.5	504	43.9	503	44.0	503	44.0
471.omnetpp	335	18.7	336	18.6	329	19.0	229	27.3	227	27.5	226	27.6
473.astar	288	24.4	290	24.2	288	24.4	288	24.4	291	24.1	290	24.2
483.xalancbmk	164	42.0	167	41.4	167	41.3	159	43.5	159	43.4	159	43.5

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

Submit Notes

The config file option 'submit' was used.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"
Power Technology set to performance
C States set to C0/C1 state
T States set to disabled

Platform Notes

Sysinfo program /cpu2006/config/sysinfo.rev6914
\$Rev: 6914 \$ \$Date:: 2014-06-25 #\$ e3fbb8667b5a285932ceab81e28219e1
running on localhost Mon Jul 20 17:02:57 2015

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 E7-4830 v2 @ 2.20GHz
4 "physical id"s (chips)
80 "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

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Sugon

SPECint2006 = 44.2

Sugon I840-G25 (Intel Xeon E7-4830 v2)

SPECint_base2006 = 41.6

CPU2006 license: 9046
Test sponsor: Sugon
Tested by: Sugon

Test date: Jul-2015
Hardware Availability: Mar-2014
Software Availability: Sep-2014

Platform Notes (Continued)

```
siblings : 20
physical 0: cores 0 1 2 3 4 8 9 10 11 12
physical 1: cores 0 1 2 3 4 8 9 10 11 12
physical 2: cores 0 1 2 3 4 8 9 10 11 12
physical 3: cores 0 1 2 3 4 8 9 10 11 12
cache size : 20480 KB
```

```
From /proc/meminfo
MemTotal: 264391628 kB
HugePages_Total: 0
Hugepagesize: 2048 kB
```

```
From /etc/*release* /etc/*version*
SuSE-release:
SUSE Linux Enterprise Server 12 (x86_64)
VERSION = 12
PATCHLEVEL = 0
# This file is deprecated and will be removed in a future service pack or
release.
# Please check /etc/os-release for details about this release.
os-release:
NAME="SLES"
VERSION="12"
VERSION_ID="12"
PRETTY_NAME="SUSE Linux Enterprise Server 12"
ID="sles"
ANSI_COLOR="0;32"
CPE_NAME="cpe:/o:suse:sles:12"
```

```
uname -a:
Linux localhost 3.12.28-4-default #1 SMP Thu Sep 25 17:02:34 UTC 2014
(9879bd4) x86_64 x86_64 x86_64 GNU/Linux
```

run-level 3 Jul 14 01:31

```
SPEC is set to: /cpu2006
Filesystem Type Size Used Avail Use% Mounted on
/dev/sdb1 ext4 275G 12G 249G 5% /cpu2006
```

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 American Megatrends Inc. 1.1 05/07/2015

Memory:
16x Hynix HMT41GR7AFR4C-PB 1 rank 1600 MHz, configured at 1333 MHz
16x Hynix HMT41GR7AFR4C-PB 16 GB 1 rank 1600 MHz, configured at 1333 MHz
64x NO DIMM NO DIMM

(End of data from sysinfo program)



SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Sugon

SPECint2006 = 44.2

Sugon I840-G25 (Intel Xeon E7-4830 v2)

SPECint_base2006 = 41.6

CPU2006 license: 9046

Test sponsor: Sugon

Tested by: Sugon

Test date: Jul-2015

Hardware Availability: Mar-2014

Software Availability: Sep-2014

General Notes

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

Binaries compiled on a system with 1x Core i5-4670K CPU + 16GB memory using RedHat EL 7.0

Transparent Huge Pages enabled with:

echo always > /sys/kernel/mm/transparent_hugepage/enabled

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/cpu2006/sh -lsmarheap64



SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Sugon

SPECint2006 = 44.2

Sugon I840-G25 (Intel Xeon E7-4830 v2)

SPECint_base2006 = 41.6

CPU2006 license: 9046

Test sponsor: Sugon

Tested by: Sugon

Test date: Jul-2015

Hardware Availability: Mar-2014

Software Availability: Sep-2014

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):

icc -m64

400.perlbench: icc -m32 -L/opt/intel/composer_xe_2015/lib/ia32

445.gobmk: icc -m32 -L/opt/intel/composer_xe_2015/lib/ia32

462.libquantum: icc -m64

464.h264ref: icc -m32

C++ benchmarks (except as noted below):

icpc -m32 -L/opt/intel/composer_xe_2015/lib/ia32

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

Continued on next page



SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Sugon

SPECint2006 = 44.2

Sugon I840-G25 (Intel Xeon E7-4830 v2)

SPECint_base2006 = 41.6

CPU2006 license: 9046

Test sponsor: Sugon

Tested by: Sugon

Test date: Jul-2015

Hardware Availability: Mar-2014

Software Availability: Sep-2014

Peak Optimization Flags (Continued)

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

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

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
-Wl,-z,muldefs -L/cpu2006/sh -lsmartheap

473.astar: -xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -auto-p32
-Wl,-z,muldefs -L/cpu2006/sh -lsmartheap64

483.xalancbmk: -xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -ansi-alias
-Wl,-z,muldefs -L/cpu2006/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-ic15.0-official-linux64.20150923.html>

<http://www.spec.org/cpu2006/flags/Sugon-Platform-Settings-V1.2-IVB.20141104.00.html>



SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Sugon

SPECint2006 = 44.2

Sugon I840-G25 (Intel Xeon E7-4830 v2)

SPECint_base2006 = 41.6

CPU2006 license: 9046

Test sponsor: Sugon

Tested by: Sugon

Test date: Jul-2015

Hardware Availability: Mar-2014

Software Availability: Sep-2014

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

<http://www.spec.org/cpu2006/flags/Intel-ic15.0-official-linux64.20150923.xml>

<http://www.spec.org/cpu2006/flags/Sugon-Platform-Settings-V1.2-IVB.20141104.00.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 Sep 23 11:04:16 2015 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 22 September 2015.