Huawei RH5885H v3 (Intel Xeon E7-4830 v2)

SPEC has determined that this result is not in compliance with the SPEC CPU2006 run and reporting rules. Specifically, the submitter has notified SPEC that the system was run with a BIOS which included a version of the Intel MRC (Memory Reference Code) that is not supported by Huawei or Intel.

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</tr>
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<td>483.xalancbmk</td>
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</tbody>
</table>

### Hardware
- **CPU Name:** Intel Xeon E7-4830 v2
- **CPU Characteristics:**
  - Intel Turbo Boost Technology up to 2.70 GHz
  - 2200
- **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:** 20 MB I+D on chip per chip
- **Other Cache:** None

### Software
- **Operating System:** Red Hat Enterprise Linux Server release 6.5 (Santiago)
  - 2.6.32-431.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

**Non-Compliant**
SPEC CINT2006 Result

Huawei

Huawei RH5885H v3 (Intel Xeon E7-4830 v2)

SPECint2006 = NC
SPECint_base2006 = NC

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

Test date: May-2014
Hardware Availability: Feb-2014
Software Availability: Nov-2013

Memory: 512 GB (64 x 8 GB 2Rx4 PC3-10600R-9, ECC)
Disk Subsystem: 2 x 300 GB SAS, 10K RPM
Other Hardware: None
Other Software: Microquill SmartHeap V9.01

Results Table

<table>
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<tr>
<th>Benchmark</th>
<th>Base Seconds</th>
<th>Base NC</th>
<th>Base Ratio</th>
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</table>

Operating System Notes

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

Platform Notes

BIOS configuration:
Set Power Efficiency Mode to Performance
Set Lock_step to disabled
Baseboard Management Controller used to adjust the fan speed to 100%
Set Intel Hyper Threading to disabled
Set Intel VT to disabled
Sysinfo program /spec/config/sysinfo.rev6800
$Rev: 6800 $ $Date:: 2011-10-11 $$ 6f2ebdff5032aaa42e583f96b07f99d3
running on localhost.localdomain Thu May 15 06:05:17 2014

Non-compliant
Huawei

Huawei RH5885H v3 (Intel Xeon E7-4830 v2)  SPECint2006 = NC  SPECint_base2006 = NC

CPU2006 license: 3175  Test date: May-2014
Test sponsor: Huawei  Hardware Availability: Feb-2014
Tested by: Huawei  Software Availability: Nov-2013

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Platform Notes (Continued)

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)
  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 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:       529108288 kB
HugePages_Total:       0
Hugepagesize:       2048 kB

/usr/bin/lsb_release -d
Red Hat Enterprise Linux Server release 6.5 (Santiago)

uname -a:
Linux localhost.localdomain 2.6.32-431.el6.x86_64 #1 SMP Sun Nov 10 22:19:54 EST 2013 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 May 15 05:58
SPEC is set to: /spec

SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation
info@spec.org
http://www.spec.org/
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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
SPEC CINT2006 Result

Huawei

Huawei RH5885H v3 (Intel Xeon E7-4830 v2)

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SPECint_base2006 = NC

CPU2006 license: 3175
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Peak Optimization Flags (Continued)

403.gcc: -xAVX -ipo -O3 -no-prec-div -inline-alloca
-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: basepeak = yes

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)
-03(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)
-03(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-opt-r-region-strategy=block -ansi-alias
-Wl,-z,muldefs -L/smartheap -lsmartheap

472.astar: basepeak = yes

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

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

Non-Compliant
Huawei RH5885H v3 (Intel Xeon E7-4830 v2)

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

SPECint2006 = NC
SPECint_base2006 = NC

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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

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-V1.0-IVB-RevG.xml

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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