Huawei
Huawei CH242 v3

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.

Hardware

CPU Name: Intel Xeon E7-4850 v2
CPU Characteristics: Intel Turbo Boost Technology up to 2.80 GHz
CPU MHz: 2300
FPU: Integrated
CPU(s) enabled: 48 cores, 4 chips, 12 cores/chip, 2 threads/core
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 256 KB I+D on chip per core
L3 Cache: 24 MB I+D on chip per chip
Other Cache: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.5 (Santiago)
Compiler: C/C++: Version 14.0.0.080 of Intel C++ Studio XE for Linux
Auto Parallel: No
File System: ext4
System State: Run level 3 (multi-user)
Base Pointers: 32-bit
Peak Pointers: 32/64-bit

Copies

400.perlbench
401.bzip2
403.gcc
429.mcf
445.gobmk
456.hmmer
458.sjeng
462.libquantum
464.h264ref
471.omnetpp
473.astar
483.xalancbmk

Non-Compliant
SPEC CINT2006 Result

Huawei
Huawei CH242 v3

SPECint_rate2006 = NC
SPECint_rate_base2006 = NC

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

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

Memory: 256 GB (32 x 8 GB 2Rx4 PC3-10600R-09, ECC)
Disk Subsystem: 1 X 300 GB SAS 10000RPM
Other Hardware: None
Other Software: Microquill SmartHeap V10.0

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Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Base</th>
<th>Peak</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Copies</td>
<td>Seconds</td>
</tr>
<tr>
<td>400.perlbench</td>
<td>96</td>
<td>NC</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>96</td>
<td>NC</td>
</tr>
<tr>
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<td>NC</td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>96</td>
<td>NC</td>
</tr>
</tbody>
</table>

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

Submit Notes

Mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"
Huawei
Huawei CH242 v3

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Platform Notes

BIOS configuration:
Set VMSE LockStep mode disable
Sysinfo program /spec14/config/sysinfo.rev682
$Rev: 6818 $ $Date:: 2012-07-17 #$ e86d1025725a8afe4d596a3cee98f191
running on localhost.localdomain Sat May 15 1:30 2014

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 E7-4850 v2 @ 2.30GHz
  4 "physical id"s (chips)
  96 "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 : 12
siblings : 24
physical 0: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 1: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 2: cores 0 1 2 3 4 5 8 9 10 11 12 13
physical 3: cores 0 1 2 3 4 5 8 9 10 11 12 13
cache size : 24576 KB

From /proc/meminfo
MemTotal: 264352320 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

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

From /etc/*release* /etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.5 (Santiago)
system-release: 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

Continued on next page
SPEC CINT2006 Result

Huawei
Huawei CH242 v3

SPECint_rate2006 = NC
SPECint_rate_base2006 = NC

CPU2006 license: 3175
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Platform Notes (Continued)

run-level 3 May 31 15:36
SPEC is set to: /spec14
Filesystem Type  Size  Used Avail Use% Mounted on
/dev/sda2  ext4  255G  131G  112G  54% /

Additional information from dmidecode:
BIOS American Megatrends Inc. BLISV033 02/27/2014
Memory:
32x 8 GB
8x Samsung M393B1K70CH0-CH9 8 GB 1333 MHz 2 rank
24x Samsung M393B1K70DH0-CH9 8 GB 1333 MHz 2 rank

General Notes

Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH="/spec14/libs/32:/spec14/libs/64:/spec14/sh"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RedHat EL 6.4
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
Filesystem page cache cleared with:
echo 1 > /proc/sys/vm/drop_caches
numactl --interleave=all runspec <etc>

Base Compiler Invocation

C benchmarks:
icc -m32

C++ benchmarks:
icpc -m32

Non-Compliant
SPEC CINT2006 Result

Huawei
Huawei CH242 v3

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

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**Base Portability Flags**

- 400.perlbench: -DSPEC_CPU_LINUX_IA32
- 462.libquantum: -DSPEC_CPU_LINUX
- 483.xalancbmk: -DSPEC_CPU_LINUX

**Base Optimization Flags**

C benchmarks:
- -xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3
C++ benchmarks:
- -xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3
- -Wl,-z,muldefs -L/sh -lsmartheap

**Base Other Flags**

C benchmarks:
- 403.gcc: -Dalloca=_alloca

**Peak Compiler Invocation**

C benchmarks (except as noted below):
- icc -m32
- 400.perlbench: icc -m64
- 401.bzip2: icc -m64
- 456.hmmer: icc -m64
- 458.sjeng: icc -m64

C++ benchmarks:
- icpc -m32

Non-Compliant
SPEC CINT2006 Result

Huawei
Huawei CH242 v3

<table>
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<tr>
<td>Tested by:</td>
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</tr>
<tr>
<td>SPECint_rate2006</td>
<td>NC</td>
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<td>SPECint_rate_base2006</td>
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Peak Portability Flags

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<td>400.perlbench</td>
<td>-DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X86</td>
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<td>401.bzip2</td>
<td>-DSPEC_CPU_LP64</td>
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Peak Optimization Flags

C benchmarks:

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<th>Flags</th>
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<tr>
<td>400.perlbench</td>
<td>-xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -ipo(pass 2) -auto-ilp32</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>-xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -ipo(pass 2)</td>
</tr>
<tr>
<td>458.sjeng</td>
<td>-xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2) -ipo(pass 2)</td>
</tr>
<tr>
<td>462.libquantum</td>
<td>basepeak = yes</td>
</tr>
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### Peak Optimization Flags (Continued)

**C++ benchmarks:**

- 471.omnetpp: `-xSSE4.2` (pass 2) `-prof-gen` (pass 1) `-o3` (pass 2)
- `-o3` (pass 2) `-no-prec-div` (pass 2) `-prof-gen` (pass 2)
- `-ansi-alias` `-opt-ra-region-strategy=block` `-Wl,-z,muldefs` `-L/sh -lsmartheap`

- 473.astar: `basepeak = yes`
- 483.xalancbmk: `basepeak = yes`

### Peak Other Flags

**C benchmarks:**

- 403.gcc: `-Dalloca=_alloca`

---

The flags files that were used to format this result can be browsed at:


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


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For questions about this result, please contact the tester.

For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.2.


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