## SPECint® CINT2006 Result

**Huawei**

Huawei CH121 V3 (Intel Xeon E5-2699 v3)  
**SPECint_rate2006 =**  Not Run  
**SPECint_rate_base2006 = 1350**

<table>
<thead>
<tr>
<th>Test date:</th>
<th>Aug-2014</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardware Availability:</td>
<td>Sep-2014</td>
</tr>
<tr>
<td>Software Availability:</td>
<td>Nov-2013</td>
</tr>
</tbody>
</table>

### Hardware

- **CPU Name:** Intel Xeon E5-2699 v3  
- **CPU Characteristics:** Intel Turbo Boost Technology up to 3.60 GHz  
- **CPU MHz:** 2300  
- **FPU:** Integrated  
- **CPU(s) enabled:** 36 cores, 2 chips, 18 cores/chip, 2 threads/core  
- **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:** 45 MB I+D on chip per chip  
- **Other Cache:** None  
- **Memory:** 256 GB (16 x 16 GB 2Rx4 PC4-2133P-R)  
- **Disk Subsystem:** 1 x 300 GB SAS, 10000RPM  
- **Other Hardware:** 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  
- **Other Software:** Microquill SmartHeap V10.0

### Performance Results

<table>
<thead>
<tr>
<th>benchmark</th>
<th>copies</th>
<th>SPECint_rate_base2006</th>
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</thead>
<tbody>
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<td>401.bzip2</td>
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**Note:** SPECint_rate_base2006 = 1350
Huawei

Huawei CH121 V3 (Intel Xeon E5-2699 v3)

SPECint_rate2006 = Not Run
SPECint_rate_base2006 = 1350

CPU2006 license: 3175
Test sponsor: Huawei
Tested by: Huawei
Test date: Aug-2014
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Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Submit Notes

The numactl 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"

Platform Notes

BIOS configuration:
Set Power Efficiency Mode to Custom
Set Snoop Mode to COD
Baseboard Management Controller used to adjust the fan speed to 100%
Sysinfo program /spec/config/sysinfo.rev6818
$Rev: 6818 $ $Date:: 2012-07-17 $ e86d102572650a6e4d596a3cee98f191
running on localhost.localdomain Wed Jan 8 06:12:53 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 E5-2699 v3 @ 2.30GHz
  2 "physical id"s (chips)
  72 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The
Continued on next page
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Platform Notes (Continued)

following excerpts from /proc/cpuinfo might not be reliable. Use with caution.

- cpu cores : 18
- siblings : 36
- physical 0: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
- physical 1: cores 0 1 2 3 4 8 9 10 11 16 17 18 19 20 24 25 26 27
- cache size : 23040 KB

From /proc/meminfo
- MemTotal: 264269740 kB
- HugePages_Total: 0
- Hugepagesize: 2048 kB

/usr/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

run-level 3 Jan 8 06:06

SPEC is set to: /spec
- Filesystem     Type  Size  Used Avail Use% Mounted on
- /dev/sda1      ext4  268G  25G  230G  10% /

Additional information from dmidecode:
- BIOS Insyde Corp. 1.13 08/12/2014
- Memory:
  - 8x NO DIMM NO DIMM  3 rank
  - 8x Samsung M393A2G40DB0-CPB 16 GB 2133 MHz 1 rank
  - 8x Samsung M393A2G40DB0-CPB 16 GB 2133 MHz 2 rank

(End of data from sysinfo program)

General Notes

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

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General Notes (Continued)

runspec command invoked through numactl i.e.:
numactl --interleave=all runspec <etc>

Base Compiler Invocation

C benchmarks:
icc  -m32

C++ benchmarks:
icpc  -m32

Base Portability Flags

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

Base Optimization Flags

C benchmarks:
xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
-opt-mem-layout-trans=3

C++ benchmarks:
xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
-opt-mem-layout-trans=3 -W1,-z,muldefs -L/sh -lsmartheap

Base 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

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/Huawei-Platform-Settings-V1.0-IVB-RevG.xml
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