Huawei CH242 V3 (Intel Xeon E7-4890 v2) SPECint®_rate2006 = Not Run
SPECint_rate_base2006 = 2310

CPU2006 license: 13
Test sponsor: Huawei
Tested by: Huawei
CPU Name: Intel Xeon E7-4890 v2

<table>
<thead>
<tr>
<th>Test</th>
<th>Copy</th>
<th>SPECint_rate_base2006</th>
</tr>
</thead>
<tbody>
<tr>
<td>400.perlbench</td>
<td>120</td>
<td>1890</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>120</td>
<td>1230</td>
</tr>
<tr>
<td>403.gcc</td>
<td>120</td>
<td>1730</td>
</tr>
<tr>
<td>429.mcf</td>
<td>120</td>
<td>2810</td>
</tr>
<tr>
<td>445.gobmk</td>
<td>120</td>
<td>1860</td>
</tr>
<tr>
<td>456.hmmer</td>
<td>120</td>
<td>3370</td>
</tr>
<tr>
<td>458.sjeng</td>
<td>120</td>
<td>1820</td>
</tr>
<tr>
<td>462.libquantum</td>
<td>120</td>
<td>16500</td>
</tr>
<tr>
<td>464.h264ref</td>
<td>120</td>
<td>3160</td>
</tr>
<tr>
<td>471.omnetpp</td>
<td>120</td>
<td>1070</td>
</tr>
<tr>
<td>473.astar</td>
<td>120</td>
<td>1300</td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>120</td>
<td>2450</td>
</tr>
</tbody>
</table>

Hardware

- CPU Name: Intel Xeon E7-4890 v2
- CPU Characteristics: Intel Turbo Boost Technology up to 3.40 GHz
- CPU MHz: 2800
- FPU: Integrated
- CPU(s) enabled: 60 cores, 4 chips, 15 cores/chip, 2 threads/core
- 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: 37.5 MB H+D on chip per chip
- Other Cache: None
- Memory: 256 GB (32 x 8 GB 2Rx4 PC3-10600R-9, ECC)
- Disk Subsystem: 1 x 300 GB SAS, 10 K RPM
- Other Hardware: None

Software

- Operating System: Red Hat Enterprise Linux Server release 6.5 (Santiago) 2.6.32-431.el6.x86_64
- 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

Test date: Feb-2014
Hardware Availability: Feb-2014
Software Availability: Nov-2013
Huawei CH242 V3 (Intel Xeon E7-4890 v2)               SPECint_rate2006 =  Not Run
SPECint_rate_base2006 = 2310

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Base</td>
<td></td>
<td></td>
<td>Peak</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>400.perlbench</td>
<td>120</td>
<td>621</td>
<td>1890</td>
<td>621</td>
<td>1890</td>
<td>624</td>
<td>1880</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>120</td>
<td>940</td>
<td>1230</td>
<td>941</td>
<td>1230</td>
<td>941</td>
<td>1230</td>
</tr>
<tr>
<td>403.gcc</td>
<td>120</td>
<td>557</td>
<td>1740</td>
<td>559</td>
<td>1730</td>
<td>558</td>
<td>1730</td>
</tr>
<tr>
<td>429.mcf</td>
<td>120</td>
<td>393</td>
<td>2780</td>
<td>390</td>
<td>2810</td>
<td>366</td>
<td>2990</td>
</tr>
<tr>
<td>445.gobmk</td>
<td>120</td>
<td>673</td>
<td>1870</td>
<td>677</td>
<td>1860</td>
<td>677</td>
<td>1860</td>
</tr>
<tr>
<td>456.hmmer</td>
<td>120</td>
<td>332</td>
<td>3370</td>
<td>333</td>
<td>3360</td>
<td>332</td>
<td>3370</td>
</tr>
<tr>
<td>458.sjeng</td>
<td>120</td>
<td>800</td>
<td>1820</td>
<td>799</td>
<td>1820</td>
<td>799</td>
<td>1820</td>
</tr>
<tr>
<td>462.libquantum</td>
<td>120</td>
<td>151</td>
<td>16500</td>
<td>151</td>
<td>16500</td>
<td>151</td>
<td>16500</td>
</tr>
<tr>
<td>464.h264ref</td>
<td>120</td>
<td>843</td>
<td>3150</td>
<td>840</td>
<td>3160</td>
<td>841</td>
<td>3160</td>
</tr>
<tr>
<td>471.omnetpp</td>
<td>120</td>
<td>704</td>
<td>1070</td>
<td>704</td>
<td>1070</td>
<td>704</td>
<td>1060</td>
</tr>
<tr>
<td>473.astar</td>
<td>120</td>
<td>651</td>
<td>1290</td>
<td>649</td>
<td>1300</td>
<td>648</td>
<td>1300</td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>120</td>
<td>338</td>
<td>2450</td>
<td>339</td>
<td>2450</td>
<td>339</td>
<td>2440</td>
</tr>
</tbody>
</table>

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 Performance
Set Lock_step to disabled
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 speccpu Wed Feb 19 08:46:53 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 E7-4890 v2 @ 2.80GHz
  4 "physical id"s (chips)
  120 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The
Continued on next page
Huawei CH242 V3 (Intel Xeon E7-4890 v2)

**SPECint_rate2006 = Not Run**

**SPECint_rate_base2006 = 2310**

CPU2006 license: 13  
Test date: Feb-2014  
Test sponsor: Huawei  
Tested by: Huawei  
Hardware Availability: Feb-2014  
Software Availability: Nov-2013

**Platform Notes (Continued)**

following excerpts from /proc/cpuinfo might not be reliable. Use with caution.)  
cpu cores : 15  
siblings : 30  
physical 0: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14  
physical 1: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14  
physical 2: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14  
physical 3: cores 0 1 2 3 4 5 6 7 8 9 10 11 12 13 14  
cache size : 38400 KB

From /proc/meminfo  
MemTotal: 264349504 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 speccpu 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 Feb 18 20:36

SPEC is set to: /spec  
Additional information from dmidecode:  
BIOS American Megatrends Inc. BLISV929 01/19/2014  
Memory:  
32x 8 GB  
64x NO DIMM NO DIMM  
16x Samsung M393B1K70CH0-CH9 8 GB 1333 Mhz 2 rank  
16x Samsung M393B1K70DH0-CH9 8 GB 1333 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:  

Continued on next page
Huawei CH242 V3 (Intel Xeon E7-4890 v2)

**SPECint_rate2006 = Not Run**

**SPECint_rate_base2006 = 2310**

---

**General Notes (Continued)**

```
echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
Filesystem page cache cleared with:
echo 1>       /proc/sys/vm/drop_caches
runspec command invoked through numactl i.e.:
umactl --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:
- `-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`

---

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.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.xml
http://www.spec.org/cpu2006/flags/Huawei-Platform-Settings-revE.20121120.xml
Huawei

Huawei CH242 V3 (Intel Xeon E7-4890 v2)

SPECint_rate2006 = Not Run
SPECint_rate_base2006 = 2310

CPU2006 license: 13
Test sponsor: Huawei
Tested by: Huawei
Test date: Feb-2014
Hardware Availability: Feb-2014
Software Availability: Nov-2013

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.
Originally published on 26 March 2014.