Huawei

Huawei XH620 V2 (Intel Xeon E5-2667)

SPECint®_rate2006 = 526
SPECint_rate_base2006 = 504

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

CPU Name: Intel Xeon E5-2667
CPU Characteristics: Intel Turbo Boost Technology up to 3.50 GHz
CPU MHz: 2900
FPU: Integrated
CPU(s) enabled: 12 cores, 2 chips, 6 cores/chip, 2 threads/core
CPU(s) orderable: 1.2 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: 15 MB I+D on chip per chip
Other Cache: None
Memory: 128 GB (16 x 8 GB 2Rx4 PC3-12800R-11, ECC)
Disk Subsystem: 1 x 300 GB SAS, 10K RPM
Other Hardware: None

Software

Operating System: Red Hat Enterprise Linux Server release 6.2 (Santiago)
Compiler: C/C++: Version 12.1.0.225 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 V9.01

Hardware

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Huawei

**Huawei XH620 V2 (Intel Xeon E5-2667)**

SPECint\_rate\_2006 = 526

**SPECint\_rate\_base\_2006 = 504**

<table>
<thead>
<tr>
<th>CPU2006 license:</th>
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<tbody>
<tr>
<td>Test sponsor:</td>
<td>Huawei</td>
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<tr>
<td>Tested by:</td>
<td>Huawei</td>
</tr>
<tr>
<td>Test date:</td>
<td>Oct-2012</td>
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<td>Hardware Availability:</td>
<td>May-2012</td>
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<tr>
<td>Software Availability:</td>
<td>Dec-2011</td>
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</table>

### Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Base</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Peak</th>
<th>Seconds</th>
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<tbody>
<tr>
<td>400.perlbench</td>
<td>24</td>
<td>631</td>
<td>371</td>
<td>632</td>
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<td>631</td>
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<tr>
<td>401.bzip2</td>
<td>24</td>
<td>849</td>
<td>273</td>
<td>849</td>
<td>273</td>
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<td>403.gcc</td>
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<td>429.mcf</td>
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<td>445.gobmk</td>
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<td>668</td>
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<td>375</td>
<td>662</td>
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<td>456.hmmer</td>
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<td>350</td>
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<td>458.sjeng</td>
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<tr>
<td>462.libquantum</td>
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<td>464.h264ref</td>
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<td>827</td>
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<td>471.omnetpp</td>
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<td>473.astar</td>
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<tr>
<td>483.xalancbmk</td>
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<td>555</td>
<td>300</td>
<td>552</td>
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</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"

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
```

runcspec command invoked through numactl i.e.:

```
  numactl --interleave=all runspec <etc>
```

Select only test related files when installing the operating system.

### Platform Notes

BIOS configuration:
Set Power Efficiency Mode to Performance

Baseboard Management Controller used to adjust the fan speed to 100%

Sysinfo program /spec/config/sysinfo.rev6800

$Rev: 6800 $ $Date: 2011-10-11 $ $Id: 6f2ebdffe5032aa42e583f96b07f99d3$


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

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Huawei XH620 V2 (Intel Xeon E5-2667)

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SPECint_rate_base2006 = 504

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

Platform Notes (Continued)

From /proc/cpuinfo
model name : Intel(R) Xeon(R) CPU E5-2667 0 @ 2.90GHz
  2 "physical id"s (chips)
  24 "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 : 6
siblings : 12
physical 0: cores 0 1 2 3 4 5
physical 1: cores 0 1 2 3 4 5
cache size : 15360 KB

From /proc/meminfo
MemTotal:       132118644 kB
HugePages_Total:       0
Hugepagesize:       2048 kB

From /etc/*release*/ etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)

uname -a:
    Linux RH62-rebuild 2.6.32-220.el6.x86_64 #1 SMP Wed Nov 9 08:03:13 EST 2011
    x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Oct 18 22:44

SPEC is set to: /spec
    Filesystem    Type    Size    Used    Avail    Use%    Mounted on
    /dev/sda1     ext4     289G    102G    173G    38%    /

Additional information from dmidecode:

(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"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
memory using RHEL5.5
Huawei XH620 V2 (Intel Xeon E5-2667)

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CPU2006 license: 3175
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Test date: Oct-2012
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Hardware Availability: May-2012
Software Availability: Dec-2011

**Base Compiler Invocation**

C benchmarks:
```bash
icc -m32
```

C++ benchmarks:
```bash
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:
```bash
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3
```

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

**Base Other Flags**

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

**Peak Compiler Invocation**

C benchmarks (except as noted below):
```bash
icc -m32
```

- 400.perlbench: icc -m64
- 401.bzip2: icc -m64
- 456.hmmer: icc -m64
- 458.sjeng: icc -m64

C++ benchmarks:
```bash
icpc -m32
```
Huawei XH620 V2 (Intel Xeon E5-2667)

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CPU2006 license: 3175
Test sponsor: Huawei
CPU2006 license: 3175
Tested by: Huawei
Test date: Oct-2012
Hardware Availability: May-2012
Software Availability: Dec-2011

---

**Peak Portability Flags**

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

---

**Peak Optimization Flags**

C benchmarks:

400.perlbench: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-auto-ilp32

401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-opt-prefetch -auto-ilp32 -ansi-alias

403.gcc: -xSSE4.2 -ipo -03 -no-prec-div

429.mcf: basepeak = yes

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
-ansi-alias -opt-mem-layout-trans=3

456.hmmer: -xSSE4.2 -ipo -03 -no-prec-div -unroll2 -auto-ilp32

458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-03(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-unroll4 -auto-ilp32

462.libquantum: basepeak = yes

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)
-ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs
-L/smartheap -lsmartheap

473.astar: basepeak = yes

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Hardware Availability: May-2012
Software Availability: Dec-2011

Peak Optimization Flags (Continued)
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
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-revE.20121120.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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