Hewlett Packard Enterprise
(Test Sponsor: HPE)
ProLiant DL360 Gen10
(3.60 GHz, Intel Xeon Gold 5122)

SPECint®2006 = Not Run
SPECint_base2006 = 70.1

CPU2006 license: 3
Test sponsor: HPE
Test date: Dec-2017
Hardware Availability: Oct-2017
Tested by: HPE
Software Availability: Apr-2017

CPU Name: Intel Xeon Gold 5122
CPU Characteristics: Intel Turbo Boost Technology up to 3.70 GHz
CPU MHZ: 3600
FPU: Integrated
CPU(s) enabled: 8 cores, 2 chips, 4 cores/chip
CPU(s) orderable: 1, 2 chip(s)
Primary Cache: 32 KB I + 32 KB D on chip per core
Secondary Cache: 1 MB I+D on chip per core
L3 Cache: 16.5 MB I+D on chip per chip
Other Cache: None
Memory: 192 GB (24 x 8 GB 2Rx8 PC4-2666V-R)
Disk Subsystem: 1 x 480 GB SATA SSD, RAID 0
Other Hardware: None

Operating System: Red Hat Enterprise Linux Server release 7.3 (Maipo)
Kernel 3.10.0-514.el7.x86_64
Compiler: C/C++: Version 17.0.3.191 of Intel C/C++ Compiler for Linux
Auto Parallel: Yes
File System: xfs
System State: Run level 3 (multi-user)
Base Pointers: 32/64-bit
Peak Pointers: Not Applicable
Other Software: Microquill SmartHeap V10.2
Hewlett Packard Enterprise
(Test Sponsor: HPE)
ProLiant DL360 Gen10
(3.60 GHz, Intel Xeon Gold 5122)

SPECint2006 = Not Run
SPECint_base2006 = 70.1

CPU2006 license: 3
Test sponsor: HPE
Tested by: HPE

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>400.perlbmch</td>
<td>210</td>
<td>46.4</td>
<td>211</td>
<td>46.3</td>
<td>211</td>
<td>46.4</td>
<td></td>
<td></td>
</tr>
<tr>
<td>401.bzip2</td>
<td>342</td>
<td>28.2</td>
<td>343</td>
<td>28.2</td>
<td>343</td>
<td>28.2</td>
<td></td>
<td></td>
</tr>
<tr>
<td>403.gcc</td>
<td>191</td>
<td>42.1</td>
<td>191</td>
<td>42.2</td>
<td>191</td>
<td>42.1</td>
<td></td>
<td></td>
</tr>
<tr>
<td>429.mcf</td>
<td>116</td>
<td>78.7</td>
<td>118</td>
<td>77.1</td>
<td>116</td>
<td>78.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>445.gobmk</td>
<td>315</td>
<td>33.3</td>
<td>315</td>
<td>33.3</td>
<td>315</td>
<td>33.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>456.hmmer</td>
<td>96.5</td>
<td>96.7</td>
<td>96.8</td>
<td>96.4</td>
<td>96.5</td>
<td>96.7</td>
<td></td>
<td></td>
</tr>
<tr>
<td>458.sjeng</td>
<td>329</td>
<td>36.8</td>
<td>329</td>
<td>36.8</td>
<td>328</td>
<td>36.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>462.libquantum</td>
<td>5.06</td>
<td>4100</td>
<td>5.00</td>
<td>4140</td>
<td>4.98</td>
<td>4160</td>
<td></td>
<td></td>
</tr>
<tr>
<td>464.h264ref</td>
<td>309</td>
<td>71.7</td>
<td>307</td>
<td>72.0</td>
<td>308</td>
<td>71.8</td>
<td></td>
<td></td>
</tr>
<tr>
<td>471.omnetpp</td>
<td>204</td>
<td>30.7</td>
<td>204</td>
<td>30.7</td>
<td>205</td>
<td>30.6</td>
<td></td>
<td></td>
</tr>
<tr>
<td>473.astar</td>
<td>183</td>
<td>38.3</td>
<td>183</td>
<td>38.3</td>
<td>183</td>
<td>38.3</td>
<td></td>
<td></td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>88.0</td>
<td>78.4</td>
<td>87.8</td>
<td>78.6</td>
<td>88.0</td>
<td>78.4</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

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

Operating System Notes
Stack size set to unlimited using "ulimit -s unlimited"
Transparent Huge Pages enabled by default
Filesystem page cache cleared with:
shell invocation of 'sync; echo 3 > /proc/sys/vm/drop_caches' prior to run
IRQ balance service was stop using "service irqbalance stop"
Tuned-adm profile was set to Throughtput-Performance

Platform Notes
BIOS Configuration:
Intel Hyperthreading set to Disabled
Thermal Configuration set to Maximum Cooling
LLC Prefetch set to Enabled
LLC Dead Line Allocation set to Disabled
Memory Patrol Scrubbing set to Disabled
Workload Profile set to General Peak Frequency Compute
Energy/Performance Bias set to Maximum Performance
Workload Profile set to Custom
NUMA Group Size Optimization set to Flat
Sysinfo program /home/specuser/cpu2006/config/sysinfo.rev6993
Revision 6993 of 2015-11-06 (b5e8d4b4eb51ed28d7f98696cbe290c1)
running on dl360gen10rhe173 Thu Dec 7 04:23:16 2017

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
Platform Notes (Continued)

From /proc/cpuinfo
model name : Intel(R) Xeon(R) Gold 5122 CPU @ 3.60GHz
  2 "physical id"s (chips)
  8 "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 : 4
siblings : 4
physical 0: cores 0 5 9 13
physical 1: cores 1 5 9 13
cache size : 16896 KB

From /proc/meminfo
MemTotal: 197575888 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

From /etc/*release* /etc/*version*
os-release:
  NAME="Red Hat Enterprise Linux Server"
  VERSION="7.3 (Maipo)"
  ID="rhel"
  ID_LIKE="fedora"
  VERSION_ID="7.3"
  PRETTY_NAME="Red Hat Enterprise Linux Server 7.3 (Maipo)"
  ANSI_COLOR="0;31"
  CPE_NAME=cpe:/o:redhat:enterprise_linux:7.3:GA:server
redhat-release: Red Hat Enterprise Linux Server release 7.3 (Maipo)
system-release: Red Hat Enterprise Linux Server release 7.3 (Maipo)

uname -a:
  Linux dl360gen10rhel73 3.10.0-514.el7.x86_64 #1 SMP Wed Oct 19 11:24:13 EDT
  2016 x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Dec 6 04:38

SPEC is set to: /home/specuser/cpu2006
Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs 392G 37G 356G 10% /home

Additional information from dmidecode:

Warning: Use caution when you interpret this section. The 'dmidecode' program
reads system data which is "intended to allow hardware to be accurately
determined", but the intent may not be met, as there are frequent changes to
hardware, firmware, and the "DMTF SMBIOS" standard.

BIOS HPE U32 09/29/2017
Memory:
  24x UNKNOWN NOT AVAILABLE 8 GB 2 rank 2666 MHz

Continued on next page
SPEC CINT2006 Result

Hewlett Packard Enterprise
(Test Sponsor: HPE)
ProLiant DL360 Gen10
(3.60 GHz, Intel Xeon Gold 5122)

SPECint2006 = Not Run
SPECint_base2006 = 70.1

CPU2006 license: 3
Test sponsor: HPE
Tested by: HPE

Platform Notes (Continued)

(End of data from sysinfo program)

General Notes

Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,compact"
LD_LIBRARY_PATH = "/home/specuser/cpu2006/lib/ia32:/home/specuser/cpu2006/lib/intel64:/home/specuser/cpu2006/sh10.2"
OMP_NUM_THREADS = "8"

Binaries compiled on a system with 1x Intel Core i7-4790 CPU + 32GB RAM memory using Redhat Enterprise Linux 7.2

Base Compiler Invocation

C benchmarks:
  icc -m64

C++ benchmarks:
  icpc -m64

Base Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64
429.mcf: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
464.h264ref: -DSPEC_CPU_LP64
471.omnetpp: -DSPEC_CPU_LP64
473.astar: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
  -xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -qopt-prefetch
  -auto-p32

C++ benchmarks:
  -xCORE-AVX2 -ipo -O3 -no-prec-div -qopt-prefetch -auto-p32
  -Wl,-z,muldefs -L/sh10.2 -lsmartheap64
### SPEC CINT2006 Result

**Hewlett Packard Enterprise**  
(Test Sponsor: HPE)  
ProLiant DL360 Gen10  
(3.60 GHz, Intel Xeon Gold 5122)  

<table>
<thead>
<tr>
<th>SPECint2006</th>
<th>Not Run</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECint_base2006</td>
<td>70.1</td>
</tr>
</tbody>
</table>

**CPU2006 license:** 3  
**Test sponsor:** HPE  
**Tested by:** HPE  
**Test date:** Dec-2017  
**Hardware Availability:** Oct-2017  
**Software Availability:** Apr-2017

#### 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/HPE-Platform-Flags-Intel-V1.2-SKX-revH.html](http://www.spec.org/cpu2006/flags/HPE-Platform-Flags-Intel-V1.2-SKX-revH.html)

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

- [http://www.spec.org/cpu2006/flags/HPE-Platform-Flags-Intel-V1.2-SKX-revH.xml](http://www.spec.org/cpu2006/flags/HPE-Platform-Flags-Intel-V1.2-SKX-revH.xml)

---

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 14 January 2018.