Non-Compliant

SPEC has determined that this result is not in compliance with the SPEC OSG Guidelines for General Availability and the SPEC CPU2006 run and reporting rules. Specifically, the submitter has notified SPEC that the system was run with a memory configuration that is not supported by Hewlett-Packard with the given processor configuration.
SPEC has determined that this result is not in compliance with the SPEC OSG Guidelines for General Availability and the SPEC CPU2006 run and reporting rules. Specifically, the submitter has notified SPEC that the system was run with a memory configuration that is not supported by Hewlett-Packard with the given processor configuration.

Results Table

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>Base Pointers</th>
<th>Peak Pointers</th>
<th>Base Pointers</th>
<th>Peak Pointers</th>
</tr>
</thead>
<tbody>
<tr>
<td>400.perlbench</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>401.bzip2</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>403.gcc</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>429.mcf</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>445.gobmk</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>456.hmmer</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>458.sjeng</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>462.libquantum</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>464.h264ref</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>471.omnetpp</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>473.astar</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
<td>NC</td>
</tr>
<tr>
<td>483.x264ref</td>
<td>NC</td>
<td>NC</td>
<td>NC</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

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.
SPEC CINT2006 Result

Hewlett-Packard Company
ProLiant BL460c Gen9
(2.60 GHz, Intel Xeon E5-2697 v3)

SPECint2006 = NC
SPECint_base2006 = NC

CPU2006 license: 3
Test sponsor: Hewlett-Packard Company
Tested by: Hewlett-Packard Company
Test date: Sep-2014
Hardware Availability: Sep-2014
Software Availability: Jun-2014

SPEC has determined that this result is not in compliance with the SPEC OSG Guidelines for General Availability and the SPEC CPU2006 run and reporting rules. Specifically, the submitter has notified SPEC that the system was run with a memory configuration that is not supported by Hewlett-Packard with the given processor configuration.

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"
Transparent Huge Pages enabled with:
  echo always > /sys/kernel/mm/transparent_hugepage/enabled
Filesystem page cache cleared with:
  echo 1 > /proc/sys/vm/drop_caches
runspec command invoked through numactl i.e.:
  numactl --interleave=all runspec <etc>

Platform Notes

BIOS Configuration:
  Intel Hyperthreading Options set to Disabled
  HP Power Profile set to Custom
  HP Power Regulator set to HP Static High Performance Mode
  Minimum Processor 1 Power Package C-State set to No Package State
  Energy/Performance Bias set to Maximum Performance
  QPI Snoop Configuration set to Early Snoop
  Thermal Configuration set to Maximum Cooling
  Processor Power and Utilization Monitoring set to Disabled
  Memory Refresh Rate set to 1x Refresh

Sysinfo program /cpu2006/config/sysinfo.rev6818
$Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
running on BL460cGen9-VP2 Fri Sep 19 15:10:48 2014

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 E5-2697 v3 @ 2.60GHz
  2 "physical id"s (chips)
  28 "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 : 14
    siblings : 14

Non Compliant
SPEC has determined that this result is not in compliance with the SPEC OSG Guidelines for General Availability and the SPEC CPU2006 run and reporting rules. Specifically, the submitter has notified SPEC that the system was run with a memory configuration that is not supported by Hewlett-Packard with the given processor configuration.

Platform Notes (Continued)

cache size : 35840 KB

From /proc/meminfo
MemTotal: 263845500 kB
HugePages_Total: 2048 kB

From /etc/*release* /etc/*version*
NAME="Red Hat Enterprise Linux Server"
VERSION="7.0 (Maipo)"
ID="rhel"
ID_LIKE="fedora"
VERSION_ID="7.0"
PRETTY_NAME="Red Hat Enterprise Linux Server 7.0 (Maipo)"

(End of data from sysinfo program)
SPEC has determined that this result is not in compliance with the SPEC OSG Guidelines for General Availability and the SPEC CPU2006 run and reporting rules. Specifically, the submitter has notified SPEC that the system was run with a memory configuration that is not supported by Hewlett-Packard with the given processor configuration.

**General Notes**

Environment variables set by runspec before the start of the run:
- KMP_AFFINITY = "granularity=fine,scatter"
- LD_LIBRARY_PATH = "/cpu2006/libs/32:/cpu2006/libs/64:/cpu2006/sh"
- OMP_NUM_THREADS = "28"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RedHat EL 6.4

**Base Compiler Invocation**

- C benchmarks: `icc -m64`
- C++ benchmarks: `icpc -m64`

**Base Portability Flags**

- 400.perlbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
- 401.bzip2: -DSPEC_CPU_LP64
- 402.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
SPEC has determined that this result is not in compliance with the SPEC OSG Guidelines for General Availability and the SPEC CPU2006 run and reporting rules. Specifically, the submitter has notified SPEC that the system was run with a memory configuration that is not supported by Hewlett-Packard with the given processor configuration.

### Base Optimization Flags

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

- C++ benchmarks:
  -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -auto-p32
  -Wl,-z,muldefs -L/sh -l:smartheap64

### Base Other Flags

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

### Peak Compiler Invocation

- C benchmarks (except as noted below):
  400.perlbench: icc -m64
  445.gobmk: icc -m32

- C++ benchmarks (except as noted below):
  icpc -m32
  -f32-astar: icpc -m64

### Peak Portability Flags

- 400.perlbench: -DSPEC_CPU_LINUX_IA32

---

Non-Compliant
SPEC has determined that this result is not in compliance with the SPEC OSG Guidelines for General Availability and the SPEC CPU2006 run and reporting rules. Specifically, the submitter has notified SPEC that the system was run with a memory configuration that is not supported by Hewlett-Packard with the given processor configuration.

**Peak Portability Flags (Continued)**

- 401.bzip2: -DSPEC_CPU_LP64
- 403.gcc: -DSPEC_CPU_LP64
- 429.mcf: -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
- 473.astar: -DSPEC_CPU_LP64
- 483.xalancbmk: -DSPEC_CPU_LINUX

**Peak Optimization Flags**

**C benchmarks:**

- 400.perlbench: -xCORE-AVX2 -prof-gen(pass 2) -prof-use(pass 2)
- 401.bzip2: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
- 403.gcc: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
- 429.mcf: -ipo -O3 -no-prec-div -inline-calloc -opt-malloc-options=3 -auto-ilp32
- 456.hmmer: basepeak = yes
- 458.sjeng: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
- 458.sjeng: -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
- 473.astar: -DSPEC_CPU_LP64

Continued on next page
Hewlett-Packard Company
ProLiant BL460c Gen9
(2.60 GHz, Intel Xeon E5-2697 v3)

SPECint2006 = NC
SPECint_base2006 = NC

Peak Optimization Flags (Continued)

462.libquantum: basepeak = yes
464.h264ref: basepeak = yes

C++ benchmarks:
471.omnetpp: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
-opt-ra-region-strategy=block -ansi-alias
-Wl,-z,muldefs -L/sh -lsmartheap

473.astar: basepeak = yes

483.xalancbmk: -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
-ansi-alias -Wl,-z,muldefs -L/sh -lsmartheap

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-ic14.0-official-linux64.20140128.html
http://www.spec.org/cpu2006/flags/HP-Platform-Flags-Intel-V1.2-HSW-revB.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/HP-Platform-Flags-Intel-V1.2-HSW-revB.xml

SPEC has determined that this result is not in compliance with the SPEC OSG Guidelines for General Availability and the SPEC CPU2006 run and reporting rules. Specifically, the submitter has notified SPEC that the system was run with a memory configuration that is not supported by Hewlett-Packard with the given processor configuration.
SPEC has determined that this result is not in compliance with the SPEC OSG Guidelines for General Availability and the SPEC CPU2006 run and reporting rules. Specifically, the submitter has notified SPEC that the system was run with a memory configuration that is not supported by Hewlett-Packard with the given processor configuration.

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.