Hewlett-Packard Company

ProLiant DL360e Gen8
(2.10 GHz, Intel Xeon E5-2450)

**SPECint** = Not Run
**SPECint_rate_base2006** = 537

<table>
<thead>
<tr>
<th>Test sponsor: Hewlett-Packard Company</th>
<th>Tested by: Hewlett-Packard Company</th>
</tr>
</thead>
<tbody>
<tr>
<td>CPU2006 license: 3</td>
<td>Test date: May-2013</td>
</tr>
<tr>
<td>Hardware Availability: Mar-2013</td>
<td>Software Availability: Feb-2013</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Standard Performance Evaluation Corporation</th>
<th><a href="mailto:info@spec.org">info@spec.org</a></th>
<th><a href="http://www.spec.org/">http://www.spec.org/</a></th>
</tr>
</thead>
<tbody>
<tr>
<td>spec</td>
<td>Page 1</td>
<td></td>
</tr>
</tbody>
</table>
SPEC CINT2006 Result

Hewlett-Packard Company

ProLiant DL360e Gen8
(2.10 GHz, Intel Xeon E5-2450)

SPECint_rate2006 = Not Run
SPECint_rate_base2006 = 537

CPU2006 license: 3
Test sponsor: Hewlett-Packard Company
Tested by: Hewlett-Packard Company

Test date: May-2013
Hardware Availability: Mar-2013
Software Availability: Feb-2013

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>
<th>Base</th>
<th>Copies</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
<th>Peak</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>400.perlbench</td>
<td>32</td>
<td>754</td>
<td>415</td>
<td>749</td>
<td>418</td>
<td>748</td>
<td>418</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>401.bzip2</td>
<td>32</td>
<td>1037</td>
<td>298</td>
<td>1036</td>
<td>298</td>
<td>1035</td>
<td>298</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>403.gcc</td>
<td>32</td>
<td>616</td>
<td>418</td>
<td>611</td>
<td>422</td>
<td>612</td>
<td>421</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>429.mcf</td>
<td>32</td>
<td>363</td>
<td>805</td>
<td>362</td>
<td>806</td>
<td>362</td>
<td>805</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>445.gobmk</td>
<td>32</td>
<td>826</td>
<td>407</td>
<td>827</td>
<td>406</td>
<td>827</td>
<td>406</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>456.hmmer</td>
<td>32</td>
<td>419</td>
<td>712</td>
<td>424</td>
<td>704</td>
<td>417</td>
<td>716</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>458.sjeng</td>
<td>32</td>
<td>942</td>
<td>411</td>
<td>940</td>
<td>412</td>
<td>939</td>
<td>412</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>462.libquantum</td>
<td>32</td>
<td>193</td>
<td>3430</td>
<td>193</td>
<td>3430</td>
<td>193</td>
<td>3430</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>464.h264ref</td>
<td>32</td>
<td>1033</td>
<td>685</td>
<td>1031</td>
<td>687</td>
<td>1036</td>
<td>684</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>471.omnetpp</td>
<td>32</td>
<td>650</td>
<td>307</td>
<td>650</td>
<td>308</td>
<td>650</td>
<td>308</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>473.astar</td>
<td>32</td>
<td>733</td>
<td>307</td>
<td>734</td>
<td>306</td>
<td>733</td>
<td>307</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>32</td>
<td>424</td>
<td>521</td>
<td>425</td>
<td>520</td>
<td>425</td>
<td>520</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></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.

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/transparent_hugepage/transparent
Filesystem page cache cleared with:
echo 1 > /proc/sys/vm/drop_caches
runcmd command invoked through numactl i.e.:
umactl --interleave=all runcmd <etc>
Accelerator Ratio for Reads/Writes set to = 100% Read / 0% Write
in HP Array Configuration Utility, CLI version

Platform Notes

BIOS Configuration:
HP Power Profile set to Maximum Performance
Collaborative Power Control set to Disabled
Thermal Configuration set to Maximum Cooling
Processor Power and Utilization Monitoring set to Disabled

Sysinfo program /cpu2006/config/sysinfo.rev6818
$Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
Continued on next page
**SPEC CINT2006 Result**

**Hewlett-Packard Company**

ProLiant DL360e Gen8  
(2.10 GHz, Intel Xeon E5-2450)

**SPECint_rate2006 = Not Run**  
**SPECint_rate_base2006 = 537**

<table>
<thead>
<tr>
<th>CPU2006 license: 3</th>
<th>Test date: May-2013</th>
</tr>
</thead>
<tbody>
<tr>
<td>Test sponsor: Hewlett-Packard Company</td>
<td>Hardware Availability: Mar-2013</td>
</tr>
<tr>
<td>Tested by: Hewlett-Packard Company</td>
<td>Software Availability: Feb-2013</td>
</tr>
</tbody>
</table>

**Platform Notes (Continued)**

running on dl360e-spec Fri May 17 15:31:52 2013

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 E5-2450 0 @ 2.10GHz  
2 "physical id"s (chips)  
32 "processors"  
ocores, siblings (Caution: counting these is hw and system dependent. The  
following excerpts from /proc/cpuinfo might not be reliable. Use with  
caution.)  
cpu cores : 8  
siblings : 16  
physical 0: cores 0 1 2 3 4 5 6 7  
physical 1: cores 0 1 2 3 4 5 6 7  
cache size : 20480 KB

From /proc/meminfo  
MemTotal: 99164032 kB  
HugePages_Total: 0  
Hugepagesize: 2048 kB

/usr/bin/lsb_release -d  
Red Hat Enterprise Linux Server release 6.4 (Santiago)

From /etc/*release* /etc/*version*  
redhat-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)  
system-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)  

uname -a:  
Linux dl360e-spec 2.6.32-358.el6.x86_64 #1 SMP Tue Jan 29 11:47:41 EST 2013  
x86_64 x86_64 x86_64 GNU/Linux

run-level 3 May 17 15:30

SPEC is set to: /cpu2006

<table>
<thead>
<tr>
<th>Filesystem</th>
<th>Type</th>
<th>Size</th>
<th>Used</th>
<th>Avail</th>
<th>Use%</th>
<th>Mounted on</th>
</tr>
</thead>
<tbody>
<tr>
<td>/dev/sda3</td>
<td>ext4</td>
<td>273G</td>
<td>21G</td>
<td>239G</td>
<td>8%</td>
<td>/</td>
</tr>
</tbody>
</table>

Additional information from dmidecode:  
BIOS HP P73 03/01/2013  
Memory:  
12x HP Not Specified 8 GB 1600 MHz 2 rank

(End of data from sysinfo program)
Hewlett-Packard Company

ProLiant DL360e Gen8
(2.10 GHz, Intel Xeon E5-2450)

SPECint_rate2006 = Not Run
SPECint_rate_base2006 = 537

CPU2006 license: 3
Test sponsor: Hewlett-Packard Company
Test date: May-2013
Tested by: Hewlett-Packard Company
Hardware Availability: Mar-2013
Software Availability: Feb-2013

General Notes
Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,compact,1,0"
LD_LIBRARY_PATH = "/cpu2006/libs2/32:/cpu2006/libs2/64"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RHEL5.5

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-ic13-official-linux64.html
http://www.spec.org/cpu2006/flags/HP-Platform-Flags-Intel-V1.2-A.20120829.html
**SPEC CINT2006 Result**

**Hewlett-Packard Company**
ProLiant DL360e Gen8
(2.10 GHz, Intel Xeon E5-2450)

<table>
<thead>
<tr>
<th>SPECint_rate2006</th>
<th>Not Run</th>
</tr>
</thead>
<tbody>
<tr>
<td>SPECint_rate_base2006</td>
<td>537</td>
</tr>
</tbody>
</table>

| CPU2006 license: | 3 |
| Test sponsor:   | Hewlett-Packard Company |
| Tested by:      | Hewlett-Packard Company |

Test date: May-2013
Hardware Availability: Mar-2013
Software Availability: Feb-2013

You can also download the XML flags sources by saving the following links:
- [http://www.spec.org/cpu2006/flags/Intel-ic13-official-linux64.xml](http://www.spec.org/cpu2006/flags/Intel-ic13-official-linux64.xml)
- [http://www.spec.org/cpu2006/flags/HP-Platform-Flags-Intel-V1.2-A.20120829.xml](http://www.spec.org/cpu2006/flags/HP-Platform-Flags-Intel-V1.2-A.20120829.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 18 June 2013.