# SPEC® CINT2006 Result

## Hewlett-Packard Company

ProLiant DL360 G5
(1.86 GHz, Intel Xeon processor E5320)

### SPECint<sub>rate2006</sub> = 34.5

### SPECint<sub>rate_base2006</sub> = 33.3

**CPU2006 license:** 3  
**Test date:** Feb-2007

**Test sponsor:** Hewlett-Packard Company  
**Hardware Availability:** Jan-2007

**Tested by:** Hewlett-Packard Company  
**Software Availability:** Nov-2006

## Hardware

- **CPU Name:** Intel Xeon E5320  
- **CPU Characteristics:** 1.86 GHz, 2x4 MB L2 shared, 1066 MHz system bus  
- **CPU MHz:** 1860  
- **FPU:** Integrated  
- **CPU(s) enabled:** 4 cores, 1 chip, 4 cores/chip  
- **CPU(s) orderable:** 1.2 chips  
- **Primary Cache:** 32 KB I + 32 KB D on chip per core  
- **Secondary Cache:** 8 MB 1+1 on chip per chip, 4 MB shared / 2 cores  
- **L3 Cache:** None  
- **Other Cache:** None  
- **Memory:** 16 GB (8x2 GB PC2-5300 CL5)  
- **Disk Subsystem:** 2x72 GB 10k SAS  
- **Other Hardware:** None

## Software

- **Operating System:** Windows Server 2003 Enterprise x64 Edition SP1  
- **Compiler:** Intel C++ Compiler for 32-bit applications, Version 9.1, Build 20061103Z  
  Package ID: W_CC_C_9.1.033  
- **Microsoft Visual Studio .NET 2003** (v7.1.3088, for libraries)
- **Auto Parallel:** No  
- **File System:** NTFS  
- **System State:** Default  
- **Base Pointers:** 32-bit  
- **Peak Pointers:** 32-bit  
- **Other Software:** MicroQuill SmartHeap Library 8.0

---

[spec.org](http://www.spec.org)
Hewlett-Packard Company

SPEC CINT2006 Result

ProLiant DL360 G5
(1.86 GHz, Intel Xeon processor E5320)

Copyright 2006-2014 Standard Performance Evaluation Corporation

SPECint_rate2006 = 34.5
SPECint_rate_base2006 = 33.3

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

Test date: Feb-2007
Hardware Availability: Jan-2007
Software Availability: Nov-2006

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>Seconds</th>
<th>Ratio</th>
<th>Seconds</th>
<th>Ratio</th>
</tr>
</thead>
<tbody>
<tr>
<td>400.perlbench</td>
<td>4</td>
<td>745</td>
<td>52.5</td>
<td>747</td>
<td>52.3</td>
<td>746</td>
<td>52.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>401.bzip2</td>
<td>4</td>
<td>1260</td>
<td>30.6</td>
<td>1257</td>
<td>30.7</td>
<td>1265</td>
<td>30.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>403.gcc</td>
<td>4</td>
<td>1787</td>
<td>18.0</td>
<td>1795</td>
<td>17.9</td>
<td>1791</td>
<td>18.0</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>429.mcf</td>
<td>4</td>
<td>1135</td>
<td>32.1</td>
<td>1135</td>
<td>32.1</td>
<td>1136</td>
<td>32.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>445.gobmk</td>
<td>4</td>
<td>884</td>
<td>47.5</td>
<td>884</td>
<td>47.4</td>
<td>883</td>
<td>47.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>456.hmmer</td>
<td>4</td>
<td>1198</td>
<td>31.2</td>
<td>1198</td>
<td>31.1</td>
<td>1198</td>
<td>31.1</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>458.sjeng</td>
<td>4</td>
<td>1064</td>
<td>45.5</td>
<td>1064</td>
<td>45.5</td>
<td>1065</td>
<td>45.5</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>462.libquantum</td>
<td>4</td>
<td>5390</td>
<td>15.4</td>
<td>5383</td>
<td>15.4</td>
<td>5385</td>
<td>15.4</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>464.h264ref</td>
<td>4</td>
<td>1161</td>
<td>76.2</td>
<td>1162</td>
<td>76.2</td>
<td>1161</td>
<td>76.2</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>471.omnetpp</td>
<td>4</td>
<td>1098</td>
<td>22.8</td>
<td>1097</td>
<td>22.8</td>
<td>1098</td>
<td>22.8</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>473.astar</td>
<td>4</td>
<td>1051</td>
<td>26.7</td>
<td>1052</td>
<td>26.7</td>
<td>1051</td>
<td>26.7</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>483.xalancbmk</td>
<td>4</td>
<td>652</td>
<td>42.4</td>
<td>653</td>
<td>42.3</td>
<td>652</td>
<td>42.3</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Platform Notes
Power Regulator set to Static High Performance Mode in BIOS.
Adjacent Sector Prefetch disabled in BIOS.

Base Compiler Invocation
C benchmarks:
icl -Qvc7.1 -Qc99
C++ benchmarks:
icl -Qvc7.1

Base Portability Flags
403.gcc: -DSPEC_CPU_WIN32
464.h264ref: -DSPEC_CPU_NO_INTTYPES -DWIN32

Base Optimization Flags
C benchmarks:
-ffast /F512000000 shlw32m.lib
-ffast /F512000000 shlw32m.lib

Continued on next page

Standard Performance Evaluation Corporation
info@spec.org
http://www.spec.org/
Hewlett-Packard Company
ProLiant DL360 G5
(1.86 GHz, Intel Xeon processor E5320)

SPECint_rate2006 = 34.5
SPECint_rate_base2006 = 33.3

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

Base Optimization Flags (Continued)

C++ benchmarks:
- fast -Qcxx_features /F512000000 shlw32m.lib
- link /FORCE:MULTIPLE

Base Other Flags

C benchmarks:
403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks:
icl -Qvc7.1 -Qc99
C++ benchmarks:
icl -Qvc7.1

Peak Portability Flags

403.gcc: -DSPEC_CPU_WIN32
464.h264ref: -DSPEC_CPU_NO_INTTYPES -DWIN32

Peak Optimization Flags

C benchmarks:
400.perlbench: -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast /F512000000
shlw32m.lib -link /FORCE:MULTIPLE

401.bzip2: Same as 400.perlbench
403.gcc: Same as 400.perlbench
429.mcf: basepeak = yes
445.gobmk: Same as 400.perlbench
456.hmmer: Same as 400.perlbench
458.sjeng: Same as 400.perlbench

Continued on next page
Hewlett-Packard Company
ProLiant DL360 G5
(1.86 GHz, Intel Xeon processor E5320)

SPECint_rate2006 = 34.5
SPECint_rate_base2006 = 33.3

Peak Optimization Flags (Continued)

462.libquantum: Same as 400.perlbench

464.h264ref: Same as 400.perlbench

C++ benchmarks:
- -Qprof_gen(pass 1) -Qprof_use(pass 2) -fast -Qcxx_features
  /F512000000 shlw32m.lib -link /FORCE:MULTIPLE

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/hp-ic91-flags.20090715.02.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/hp-ic91-flags.20090715.02.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 v1.0.
Originally published on 6 March 2007.