### SPECint® CINT2006 Result

**Hewlett-Packard Company**  
ProLiant BL20p G4  
(1.86 GHz, Intel Xeon processor E5320)

<table>
<thead>
<tr>
<th>Specint_rate2006</th>
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<tbody>
<tr>
<td>Specint_rate_base2006</td>
<td>33.3</td>
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</table>

**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

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#### 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 I+D 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

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Hewlett-Packard Company

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Results Table

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

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:

-fast /F512000000 shlw32m.lib

-link /FORCE:MULTIPLE

Continued on next page
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SPECint_rate2006 = 34.5
SPECint_rate_base2006 = 33.3

CPU2006 license: 3
Test sponsor: Hewlett-Packard Company
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Test date: Feb-2007
Hardware Availability: Jan-2007
Software Availability: Nov-2006

**Base Optimization Flags (Continued)**

C++ benchmarks:
- `fast` `-Qcxx_features /F51200000000 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 /F51200000000 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
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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

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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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