



# SPEC® CINT2006 Result

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## Hewlett-Packard Company

SPECint®\_rate2006 = 58.3

ProLiant ML350 G5  
(1.86 GHz, Intel Xeon processor E5320)

SPECint\_rate\_base2006 = 56.5

CPU2006 license: 3

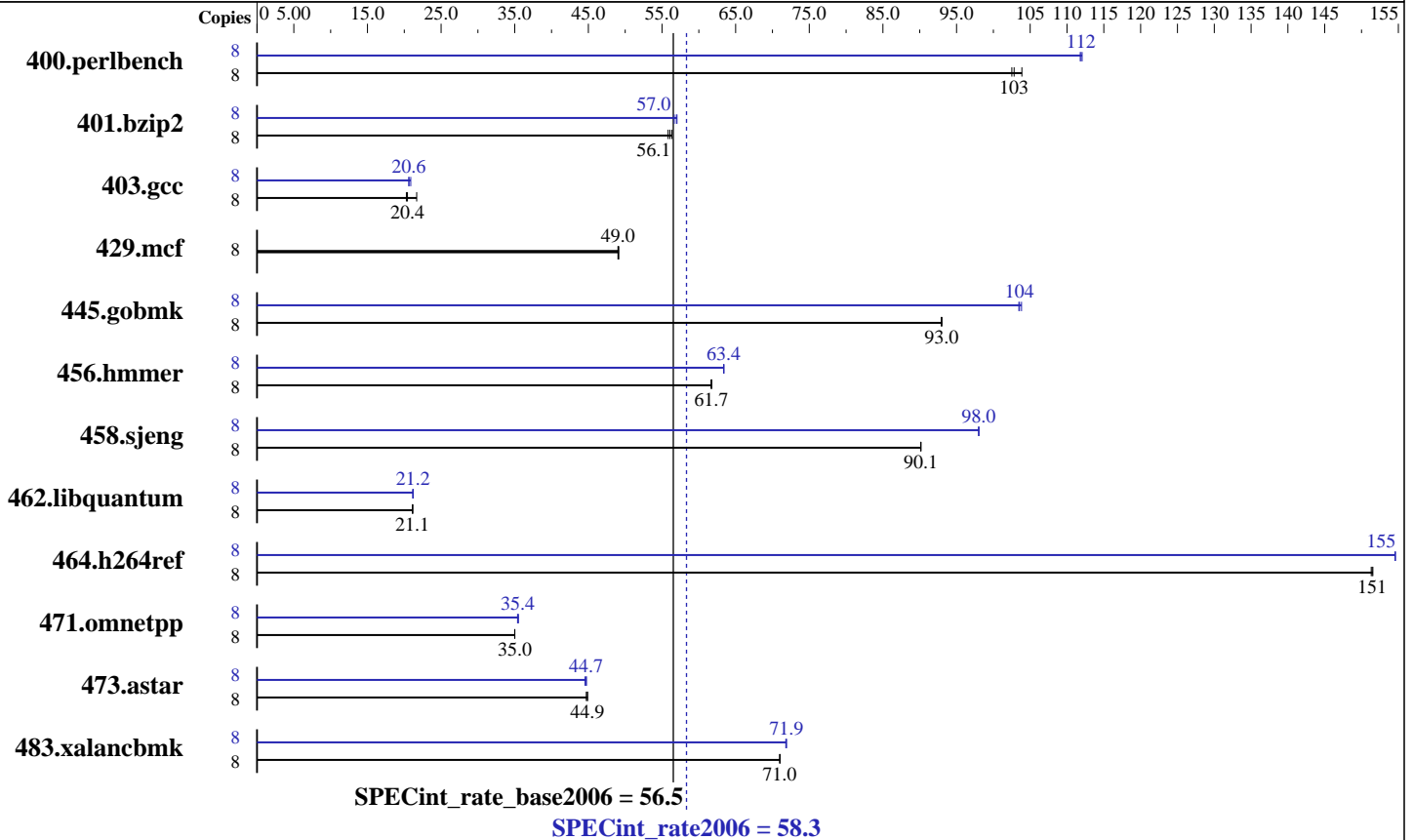
Test date: Feb-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Nov-2006

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: 8 cores, 2 chips, 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: 8 GB (4x2 GB PC2-5300F CL5)  
 Disk Subsystem: 4x36 GB 10 K 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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## Results Table

Benchmark	Base						Peak							
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	8	752	104	762	103	<b>760</b>	<b>103</b>	8	<b>698</b>	<b>112</b>	699	112	698	112
401.bzip2	8	<b>1377</b>	<b>56.1</b>	1383	55.8	1370	56.3	8	<b>1355</b>	<b>57.0</b>	1354	57.0	1363	56.7
403.gcc	8	2970	21.7	3175	20.3	<b>3152</b>	<b>20.4</b>	8	<b>3120</b>	<b>20.6</b>	3084	20.9	3125	20.6
429.mcf	8	1485	49.1	<b>1488</b>	<b>49.0</b>	1488	49.0	8	1485	49.1	<b>1488</b>	<b>49.0</b>	1488	49.0
445.gobmk	8	903	92.9	902	93.0	<b>903</b>	<b>93.0</b>	8	808	104	<b>810</b>	<b>104</b>	811	103
456.hammer	8	1210	61.7	<b>1210</b>	<b>61.7</b>	1208	61.8	8	1177	63.4	<b>1178</b>	<b>63.4</b>	1178	63.4
458.sjeng	8	<b>1074</b>	<b>90.1</b>	1074	90.2	1074	90.1	8	988	98.0	988	98.0	<b>988</b>	<b>98.0</b>
462.libquantum	8	<b>7845</b>	<b>21.1</b>	7840	21.1	7847	21.1	8	<b>7814</b>	<b>21.2</b>	7844	21.1	7813	21.2
464.h264ref	8	1168	152	<b>1169</b>	<b>151</b>	1170	151	8	1145	155	<b>1145</b>	<b>155</b>	1145	155
471.omnetpp	8	1428	35.0	1429	35.0	<b>1428</b>	<b>35.0</b>	8	1408	35.5	1413	35.4	<b>1411</b>	<b>35.4</b>
473.astar	8	1256	44.7	<b>1252</b>	<b>44.9</b>	1251	44.9	8	1261	44.5	<b>1256</b>	<b>44.7</b>	1255	44.7
483.xalancbmk	8	777	71.0	778	71.0	<b>777</b>	<b>71.0</b>	8	768	71.9	769	71.8	<b>768</b>	<b>71.9</b>

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

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## 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.hmmmer: 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 other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

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