SPEC® CINT2006 Result

Hewlett-Packard Company

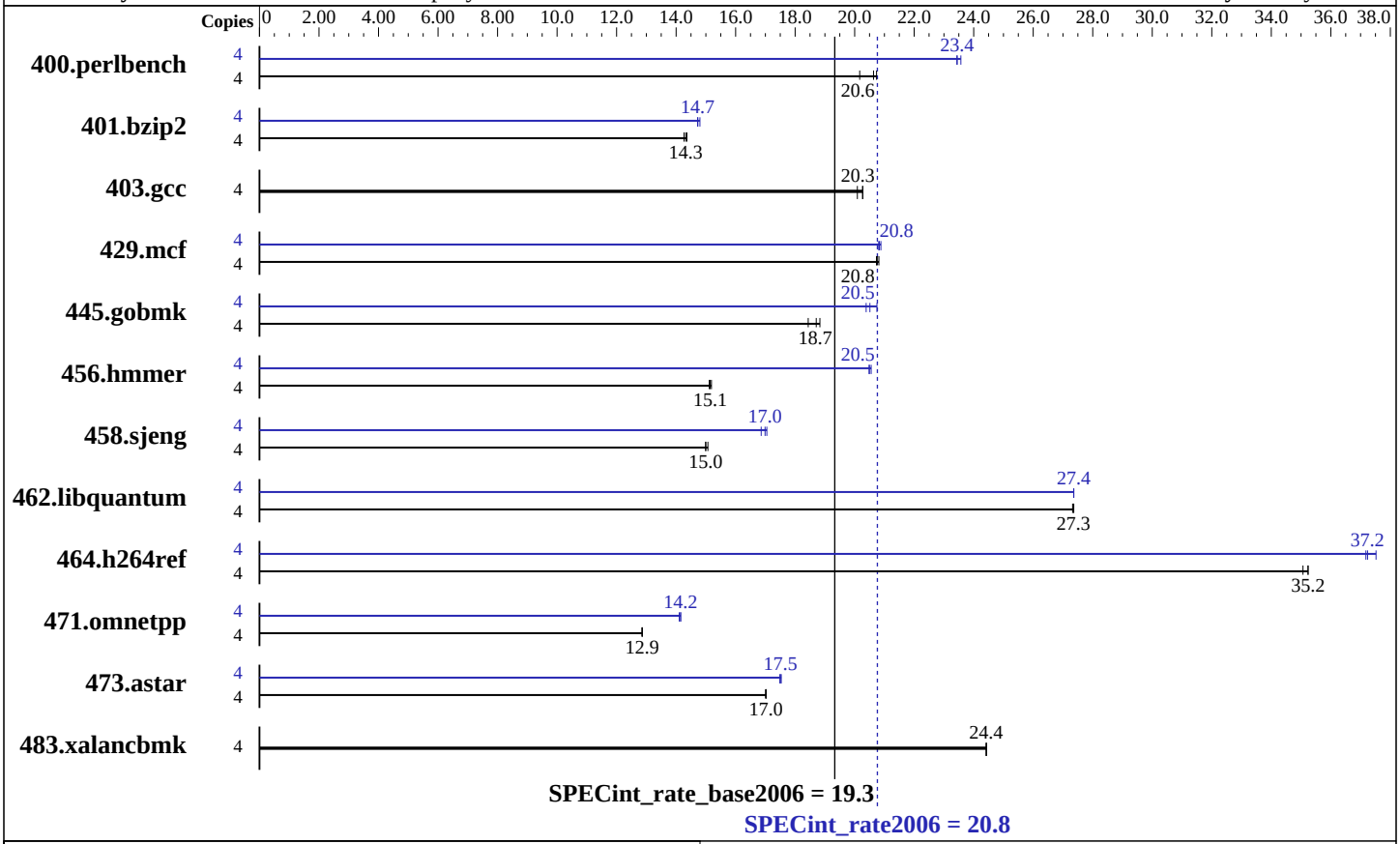
ProLiant DL580 G4
(3.0 GHz, Intel Xeon processor 7120M)

SPECint®_rate2006 = 20.8

SPECint_rate_base2006 = 19.3

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

Test date: Jul-2007
Hardware Availability: Aug-2006
Software Availability: May-2007



Hardware

CPU Name:	Intel Xeon 7120M
CPU Characteristics:	3.0 GHz, 800 MHz system bus
CPU MHz:	3000
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip, 2 threads/core
CPU(s) orderable:	1,2,4 chips
Primary Cache:	12 K micro-ops I + 16 KB D on chip per core
Secondary Cache:	1 MB I+D on chip per core
L3 Cache:	4 MB I+D on chip per chip
Other Cache:	None
Memory:	32 GB (16x2 GB PC2-3200R)
Disk Subsystem:	1x72 GB 15K SAS
Other Hardware:	None

Software

Operating System:	SuSE Linux Enterprise Server 10 (x86_64) kernel 2.6.16.21-0.8-smp
Compiler:	Intel C++ Compiler for IA32/EM64T applications, Version 10.0 Build 20070426 Package ID: l_cc_p_10.0.023
Auto Parallel:	No
File System:	ext2
System State:	Multi-user run level 3
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	MicroQuill SmartHeap 8.1 libraries

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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	4	**1894**	**20.6**	1885	20.7	1938	20.2	4	1668	23.4	1658	23.6	**1667**	**23.4**
401.bzip2	4	2706	14.3	2688	14.4	**2694**	**14.3**	4	**2620**	**14.7**	2608	14.8	2622	14.7
403.gcc	4	1588	20.3	**1589**	**20.3**	1603	20.1	4	1588	20.3	**1589**	**20.3**	1603	20.1
429.mcf	4	**1757**	**20.8**	1753	20.8	1760	20.7	4	**1751**	**20.8**	1753	20.8	1747	20.9
445.gobmk	4	2276	18.4	**2243**	**18.7**	2228	18.8	4	**2046**	**20.5**	2022	20.7	2058	20.4
456.hmmer	4	2457	15.2	**2464**	**15.1**	2469	15.1	4	1822	20.5	1816	20.6	**1821**	**20.5**
458.sjeng	4	3212	15.1	**3228**	**15.0**	3228	15.0	4	2871	16.9	2839	17.0	**2849**	**17.0**
462.libquantum	4	3029	27.4	3033	27.3	**3030**	**27.3**	4	3029	27.4	3029	27.4	**3029**	**27.4**
464.h264ref	4	2524	35.1	**2512**	**35.2**	2512	35.2	4	2381	37.2	**2377**	**37.2**	2359	37.5
471.omnetpp	4	1943	12.9	1945	12.9	**1944**	**12.9**	4	1772	14.1	**1767**	**14.2**	1766	14.2
473.astar	4	1649	17.0	1651	17.0	**1650**	**17.0**	4	1602	17.5	1606	17.5	**1604**	**17.5**
483.xalancbmk	4	1130	24.4	1130	24.4	**1130**	**24.4**	4	1130	24.4	1130	24.4	**1130**	**24.4**

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

Operating System Notes

'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run

Platform Notes

BIOS configuration:
 Power Regulator Disabled
 Adjacent Sector Prefetch Enabled
 Hardware Prefetcher Enabled
 Hyper-Threading Technology Enabled

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Base Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
462.libquantum: -DSPEC_CPU_LINUX

Continued on next page

Base Portability Flags (Continued)

483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
-xP -ipo -O3 -static -no-prec-div

C++ benchmarks:
-xP -ipo -O3 -no-prec-div -Wl,-z,muldefs
-L/cpu2006.1.0/SmartHeap_8.1/lib -lsmartheap

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks (except as noted below):
icc

401.bzip2: /opt/intel/cce/10.0.023/bin/icc
-L/opt/intel/cce/10.0.023/lib
-I/opt/intel/cce/10.0.023/include

456.hmmer: /opt/intel/cce/10.0.023/bin/icc
-L/opt/intel/cce/10.0.023/lib
-I/opt/intel/cce/10.0.023/include

C++ benchmarks:
icpc

Peak Portability Flags

400.perlbench: -DSPEC_CPU_LINUX_IA32
401.bzip2: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX

Peak Optimization Flags

C benchmarks:

400.perlbench: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-xP -ipo -O3 -no-prec-div -ansi-alias -prefetch`

401.bzip2: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-xP -ipo -O3 -no-prec-div`

403.gcc: `basepeak = yes`

429.mcf: `-xP -ipo -O3 -static -no-prec-div -prefetch -L/cpu2006.1.0/SmartHeap_8.1/lib -lsmartheap`

445.gobmk: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-xP -O2 -ipo -no-prec_div -ansi-alias`

456.hmmer: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-xP -ipo -O3 -static -no-prec-div -unroll2 -ansi-alias`

458.sjeng: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-xP -ipo -O3 -static -no-prec-div -unroll4`

462.libquantum: `Same as 458.sjeng`

464.h264ref: `Same as 456.hmmer`

C++ benchmarks:

471.omnetpp: `-prof-gen`(pass 1) `-prof-use`(pass 2) `-xP -O3 -ipo -no-prec_div -ansi-alias -Wl,-z,muldefs -L/cpu2006.1.0/SmartHeap_8.1/lib -lsmartheap`

473.astar: `Same as 471.omnetpp`

483.xalancbmk: `basepeak = yes`

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-ic10-flags.20090714.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/hp-ic10-flags.20090714.xml`

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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