SPEC® CINT2006 Result

Hewlett-Packard Company

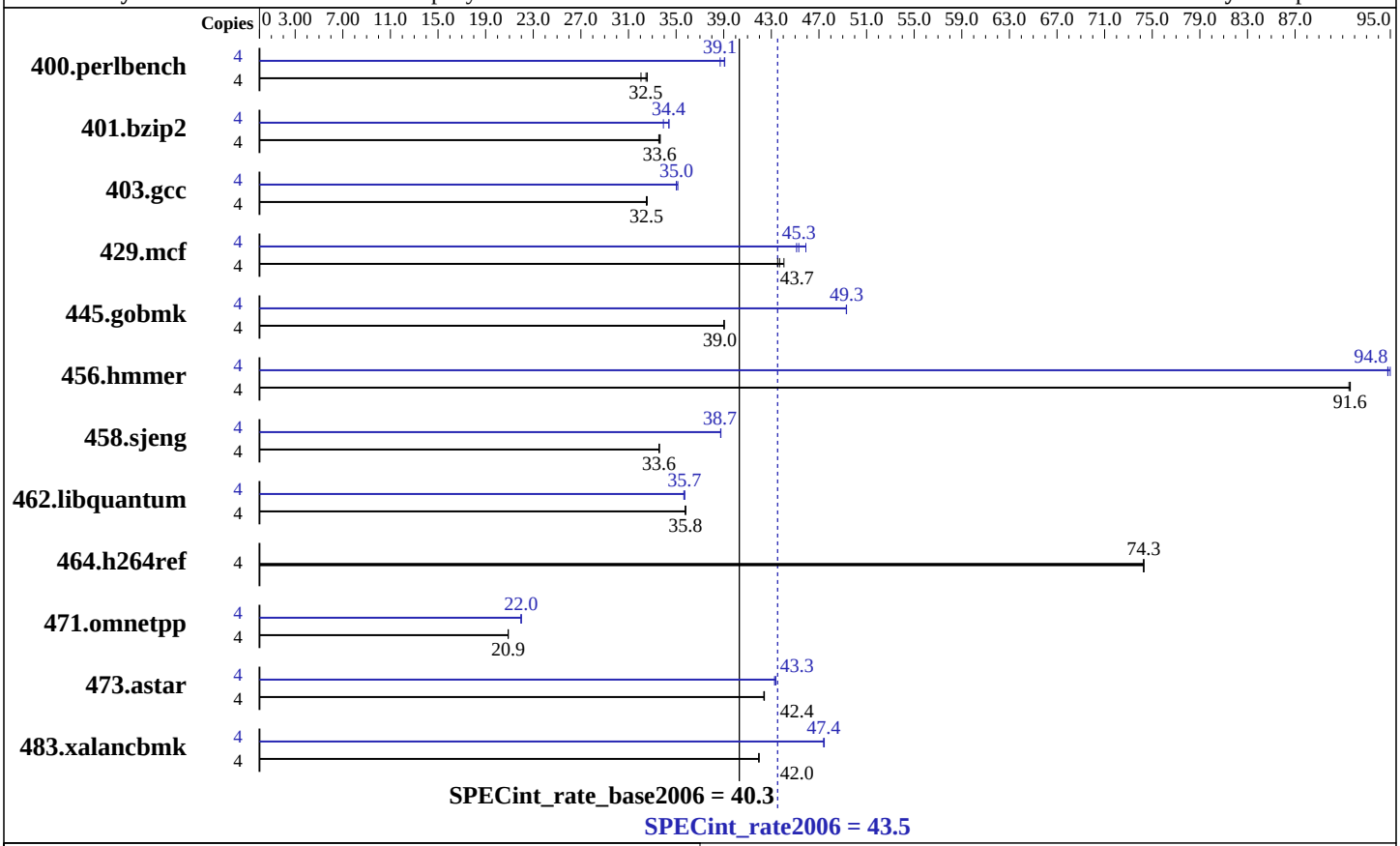
HP Integrity rx2620
(1.4GHz/12MB Dual-Core Intel Itanium 2)

SPECint®_rate2006 = 43.5

SPECint_rate_base2006 = 40.3

CPU2006 license: 03
Test sponsor: Hewlett-Packard Company
Tested by: Hewlett-Packard Company

Test date: Oct-2006
Hardware Availability: Sep-2006
Software Availability: Sep-2006



Hardware

CPU Name:	Dual-Core Intel Itanium 2 9015
CPU Characteristics:	1.4GHz/12MB, 400MHz FSB
CPU MHz:	1400
FPU:	Integrated
CPU(s) enabled:	4 cores, 2 chips, 2 cores/chip
CPU(s) orderable:	1-2 chips
Primary Cache:	16 KB I + 16 KB D on chip per core
Secondary Cache:	1 MB I + 256 KB D on chip per core
L3 Cache:	6 MB I+D on chip per core
Other Cache:	None
Memory:	24 GB (12xGB DIMMs)
Disk Subsystem:	146GB 10K RPM SCSI
Other Hardware:	None

Software

Operating System:	HPUX11i-TCOE B.11.23.0609
Compiler:	HP C/aC++ Developer's Bundle C.11.23.12
Auto Parallel:	No
File System:	vxfs
System State:	Multi-user
Base Pointers:	32-bit
Peak Pointers:	32-bit
Other Software:	MicroQuill Smartheap 8.0

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	4	**1204**	**32.5**	1219	32.0	1199	32.6	4	**1001**	**39.1**	1010	38.7	1000	39.1
401.bzip2	4	1151	33.5	1146	33.7	**1148**	**33.6**	4	**1122**	**34.4**	1138	33.9	1122	34.4
403.gcc	4	989	32.6	**990**	**32.5**	991	32.5	4	**919**	**35.0**	916	35.1	920	35.0
429.mcf	4	838	43.5	**835**	**43.7**	828	44.1	4	809	45.1	**805**	**45.3**	795	45.9
445.gobmk	4	**1075**	**39.0**	1075	39.0	1075	39.0	4	851	49.3	851	49.3	**851**	**49.3**
456.hmmer	4	408	91.5	407	91.6	**407**	**91.6**	4	**394**	**94.8**	394	94.8	393	95.0
458.sjeng	4	**1442**	**33.6**	1440	33.6	1442	33.6	4	1249	38.8	1249	38.7	**1249**	**38.7**
462.libquantum	4	2315	35.8	**2315**	**35.8**	2317	35.8	4	**2321**	**35.7**	2320	35.7	2325	35.7
464.h264ref	4	**1192**	**74.3**	1191	74.3	1192	74.3	4	**1192**	**74.3**	1191	74.3	1192	74.3
471.omnetpp	4	1196	20.9	**1196**	**20.9**	1197	20.9	4	1137	22.0	1137	22.0	**1137**	**22.0**
473.astar	4	663	42.4	662	42.4	**662**	**42.4**	4	**648**	**43.3**	647	43.4	649	43.3
483.xalancbmk	4	658	42.0	**658**	**42.0**	658	41.9	4	582	47.4	**582**	**47.4**	582	47.5

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

Operating System Notes

```
The system had the September 2006 HP-UX 11i v2 Technical Computing
Operating Environment (TCOE) and compilers installed, along with
the following patches:

PHSS_34858  linker + fdp cumulative patch
PHSS_34853  Math Library Cumulative Patch
PHSS_34854  Integrity Unwind Library
PHSS_34855  HP C Compiler (A.06.12)
PHSS_34856  aC++ Compiler (A.06.12)
PHSS_34857  u2comp/be/plugin library patch
PHSS_34395  FORTRAN I/O Library [libIO77]
PHSS_34397  FORTRAN Intrinsics [libF90 B.11.23.17]
PHSS_34399  Fortran Product Patch, v3.1 to v3.1.1
PHKL_34020  Perfmon enhancements and Itanium Dual-Core

The following kernel tunables were set, in addition to the defaults
set by the Technical Computing OE:

dbc_max_pct=20
dbc_min_pct=20
maxdsiz=3221225472
maxssiz=401604608
```

Base Compiler Invocation

C benchmarks:
```
/opt/ansic/bin/cc -Ae
```

C++ benchmarks:
```
/opt/aCC/bin/aCC -Aa
```

Base Portability Flags

400.perlbench: -DSPEC_CPU_HPUX_IA64
403.gcc: -DSPEC_CPU_HPUX
462.libquantum: -DSPEC_CPU_HPUX
483.xalancbmk: -DSPEC_CPU_HPUX_IA64

Base Optimization Flags

C benchmarks:
```
+Ofaster +Otype_safety=ansi -Wl,-a,archive_shared -Wl,+pd,64M
-Wl,+pi,64M -Wl,-N
```

C++ benchmarks:
```
+Ofaster +Otype_safety=ansi -Wl,-a,archive_shared -Wl,+pd,64M
-Wl,+pi,64M -Wl,-N
/usr/lib/hpux32/libCsup.a /opt/smartheap/SmartHeap_8/lib/libsmartheap.a
```

Peak Compiler Invocation

C benchmarks:
```
/opt/ansic/bin/cc -Ae
```

C++ benchmarks:
```
/opt/aCC/bin/aCC -Aa
```

Peak Portability Flags

400.perlbench: -DSPEC_CPU_HPUX_IA64
403.gcc: -DSPEC_CPU_HPUX
462.libquantum: -DSPEC_CPU_HPUX
483.xalancbmk: -DSPEC_CPU_HPUX_IA64

Peak Optimization Flags

C benchmarks:

400.perlbench: +Oprofile=collect:all(pass 1) +Oprofile=use(pass 2)
+Ofaster +Otype_safety=ansi -Wl,-a,archive_shared
-Wl,+pd,64M -Wl,+pi,64M -Wl,-N

401.bzip2: Same as 400.perlbench

403.gcc: Same as 400.perlbench

429.mcf: Same as 400.perlbench

445.gobmk: +Oprofile=collect:all(pass 1) +Oprofile=use(pass 2)
+Ofaster +Otype_safety=ansi -Wl,-a,archive_shared
-Wl,+pd,64M -Wl,+pi,64M +Odataprefetch=direct

456.hmmer: +Oprofile=collect:all(pass 1) +Oprofile=use(pass 2)
+Ofaster +Otype_safety=ansi -Wl,-a,archive_shared
-Wl,+pd,64M -Wl,+pi,64M

458.sjeng: Same as 445.gobmk

462.libquantum: Same as 456.hmmer

464.h264ref: basepeak = yes

C++ benchmarks:

471.omnetpp: +Oprofile=collect:all(pass 1) +Oprofile=use(pass 2)
+Ofaster +Otype_safety=ansi -Wl,-a,archive_shared
-Wl,+pd,64M -Wl,+pi,64M
/usr/lib/hpux32/libCsup.a /opt/smartheap/SmartHeap_8/lib/libsmartheap.a

473.astar: +Ofaster +Otype_safety=ansi -Wl,-a,archive_shared
-Wl,+pd,64M -Wl,+pi,64M +Onoparmsoverlap
/usr/lib/hpux32/libCsup.a /opt/smartheap/SmartHeap_8/lib/libsmartheap.a

483.xalancbmk: +Oprofile=collect:all(pass 1) +Oprofile=use(pass 2)
+Ofaster +Otype_safety=ansi -Wl,-a,archive_shared
-Wl,+pd,64M -Wl,+pi,64M +Onoparmsoverlap
/usr/lib/hpux32/libCsup.a /opt/smartheap/SmartHeap_8/lib/libsmartheap.a

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/CPU2006_flags.20090715.11.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/CPU2006_flags.20090715.11.xml

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

Tested with SPEC CPU2006 v1.0.
Report generated on Tue Jul 22 10:10:46 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 15 November 2006.