



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECint®_rate2006 = 53.7

HP Integrity rx2660
(1.6GHz/18MB Dual-Core Intel Itanium 2)

SPECint_rate_base2006 = 49.6

CPU2006 license: 03

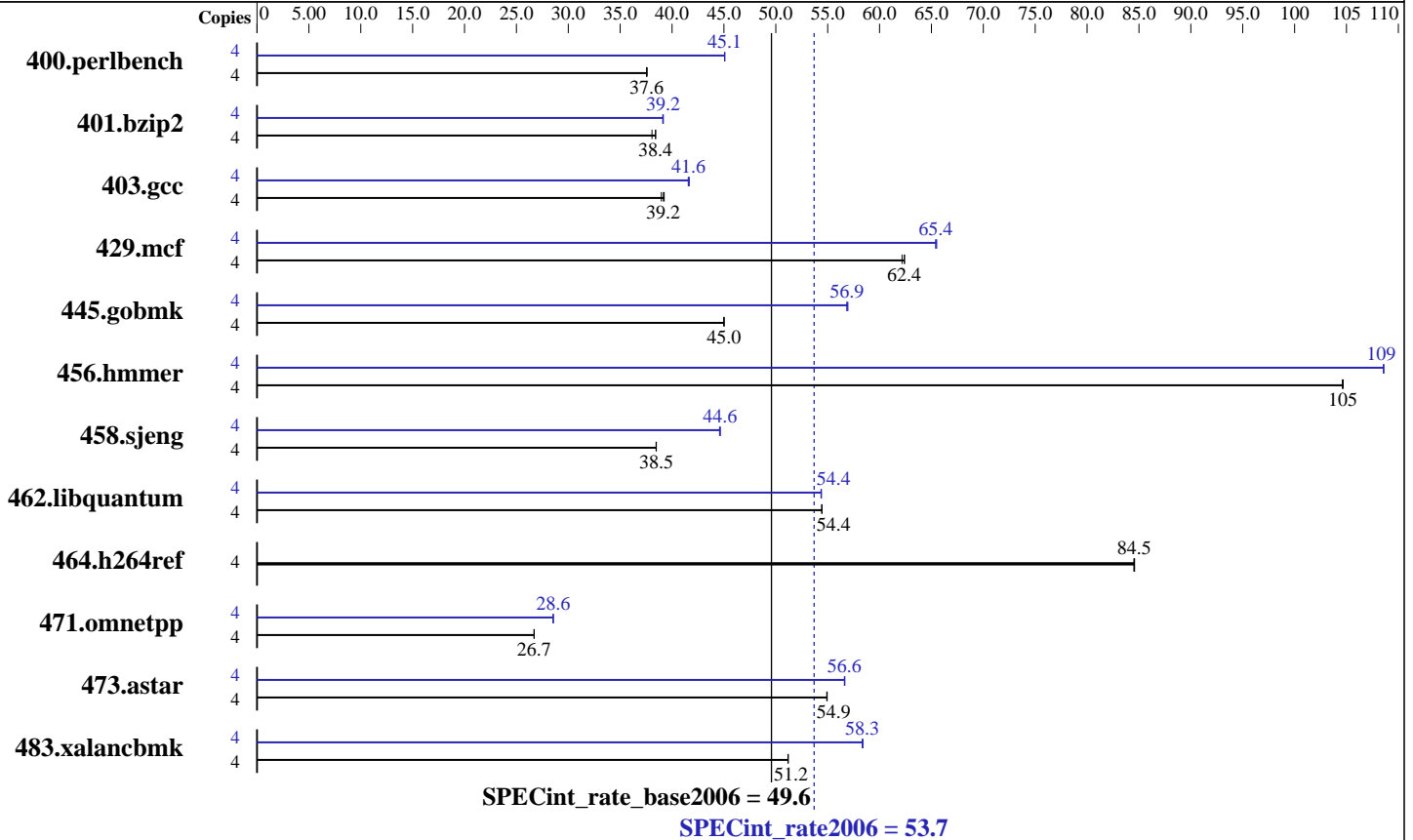
Test date: Jan-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Feb-2007

Tested by: Hewlett-Packard Company

Software Availability: Feb-2007



Hardware

CPU Name: Dual-Core Intel Itanium 2 9040
 CPU Characteristics: 1.6GHz/18MB, 533MHz FSB
 CPU MHz: 1600
 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: 9 MB I+D on chip per core
 Other Cache: None
 Memory: 8 GB (4x2GB DIMMs)
 Disk Subsystem: 73GB 10K RPM SAS
 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



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECint_rate2006 = 53.7

HP Integrity rx2660
(1.6GHz/18MB Dual-Core Intel Itanium 2)

SPECint_rate_base2006 = 49.6

CPU2006 license: 03

Test date: Jan-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Feb-2007

Tested by: Hewlett-Packard Company

Software Availability: Feb-2007

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	4	1041	37.6	1040	37.6	1041	37.6	4	867	45.1	867	45.1	867	45.1
401.bzip2	4	1014	38.1	1005	38.4	1005	38.4	4	987	39.1	986	39.2	986	39.2
403.gcc	4	826	39.0	822	39.2	821	39.2	4	774	41.6	773	41.7	775	41.6
429.mcf	4	587	62.2	585	62.4	585	62.4	4	558	65.4	558	65.4	557	65.5
445.gobmk	4	932	45.0	932	45.0	933	45.0	4	738	56.8	738	56.9	737	56.9
456.hammer	4	357	105	357	105	357	105	4	344	109	344	109	344	109
458.sjeng	4	1258	38.5	1258	38.5	1258	38.5	4	1084	44.6	1084	44.6	1086	44.6
462.libquantum	4	1522	54.4	1522	54.4	1522	54.4	4	1524	54.4	1524	54.4	1525	54.4
464.h264ref	4	1047	84.5	1047	84.5	1047	84.6	4	1047	84.5	1047	84.5	1047	84.6
471.omnetpp	4	936	26.7	936	26.7	936	26.7	4	876	28.6	875	28.6	876	28.5
473.astar	4	511	55.0	511	54.9	511	54.9	4	496	56.7	496	56.6	496	56.6
483.xalancbmk	4	539	51.2	539	51.2	539	51.2	4	473	58.4	473	58.3	473	58.3

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

```



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECint_rate2006 = 53.7

HP Integrity rx2660
(1.6GHz/18MB Dual-Core Intel Itanium 2)

SPECint_rate_base2006 = 49.6

CPU2006 license: 03

Test date: Jan-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Feb-2007

Tested by: Hewlett-Packard Company

Software Availability: Feb-2007

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



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECint_rate2006 = 53.7

HP Integrity rx2660
(1.6GHz/18MB Dual-Core Intel Itanium 2)

SPECint_rate_base2006 = 49.6

CPU2006 license: 03

Test date: Jan-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Feb-2007

Tested by: Hewlett-Packard Company

Software Availability: Feb-2007

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.hmmr: +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.hmmr

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.20090715.07.html

You can also download the XML flags source by saving the following link:

http://www.spec.org/cpu2006/flags/CPU2006_flags.20090715.07.xml



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

SPECint_rate2006 = 53.7

HP Integrity rx2660
(1.6GHz/18MB Dual-Core Intel Itanium 2)

SPECint_rate_base2006 = 49.6

CPU2006 license: 03

Test date: Jan-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Feb-2007

Tested by: Hewlett-Packard Company

Software Availability: Feb-2007

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.
Report generated on Tue Jul 22 10:20:12 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 6 February 2007.