



SPEC® CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

HP Integrity rx3600 (1.66GHz/18MB Dual-Core Intel Itanium)

SPECint®2006 = 16.8

SPECint_base2006 = 15.6

CPU2006 license: 03

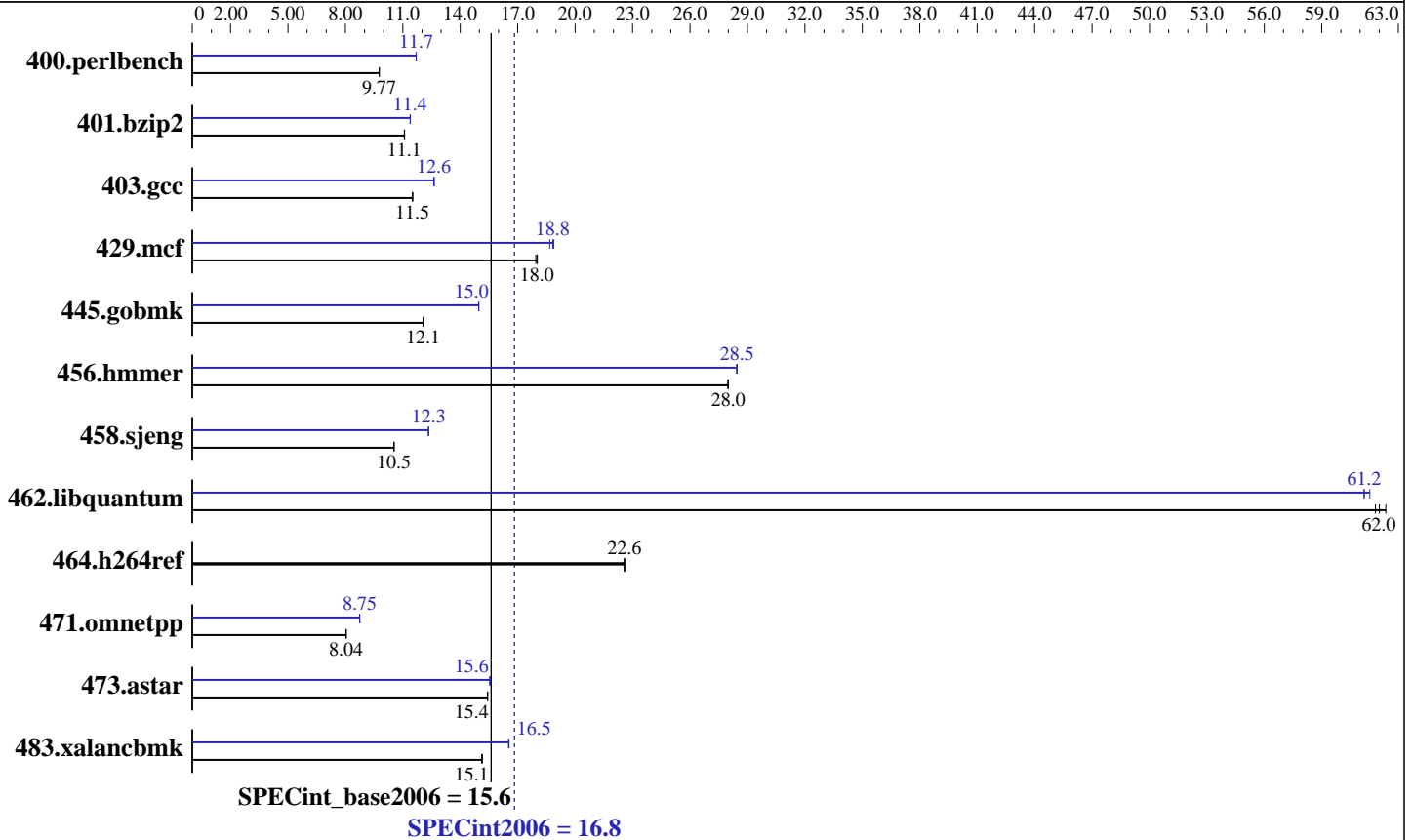
Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Sep-2007

Hardware Availability: Nov-2007

Software Availability: Sep-2007



Hardware

CPU Name: Dual-Core Intel Itanium 9140M
 CPU Characteristics: 1.66GHz/18MB, 667MHz FSB
 CPU MHz: 1666
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 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: 16 GB (8x2GB DIMMs, AD124A 8-DIMM memory carrier)
 Disk Subsystem: 73GB 10K RPM SAS
 Other Hardware: None

Software

Operating System: HPUX11i-MCOE B.11.31 (LR)
 Compiler: HP C/aC++ Developer's Bundle C.11.31.03
 HP Fortran90 Compiler B.11.31.03
 Auto Parallel: No
 File System: vxfs
 System State: Multi-user
 Base Pointers: 32-bit
 Peak Pointers: 32-bit
 Other Software: MicroQuill Smartheap 8.1



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

HP Integrity rx3600 (1.66GHz/18MB Dual-Core Intel Itanium)

SPECint2006 = 16.8

SPECint_base2006 = 15.6

CPU2006 license: 03

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Sep-2007

Hardware Availability: Nov-2007

Software Availability: Sep-2007

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	1000	9.77	1001	9.76	1000	9.77	835	11.7	835	11.7	835	11.7
401.bzip2	870	11.1	871	11.1	871	11.1	847	11.4	847	11.4	848	11.4
403.gcc	699	11.5	699	11.5	699	11.5	637	12.6	637	12.6	637	12.6
429.mcf	507	18.0	508	17.9	506	18.0	488	18.7	484	18.8	483	18.9
445.gobmk	870	12.1	870	12.1	870	12.1	701	15.0	701	15.0	701	15.0
456.hammer	333	28.0	333	28.0	333	28.0	328	28.4	328	28.5	328	28.5
458.sjeng	1148	10.5	1148	10.5	1148	10.5	980	12.3	980	12.3	980	12.3
462.libquantum	332	62.3	334	62.0	335	61.8	338	61.2	338	61.2	337	61.5
464.h264ref	980	22.6	980	22.6	980	22.6	980	22.6	980	22.6	980	22.6
471.omnetpp	778	8.03	777	8.04	777	8.04	715	8.74	714	8.75	715	8.75
473.astar	455	15.4	455	15.4	455	15.4	452	15.5	451	15.6	451	15.6
483.xalancbmk	456	15.1	456	15.1	455	15.2	417	16.5	418	16.5	417	16.6

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 2007 HP-UX 11i v3 Mission Critical Operating Environment (MCOE) and compilers installed, along with the following patches:

```

PHSS_36349 linker + fdp cumulative patch
PHSS_36351 Math Library Cumulative Patch
PHSS_36352 Integrity Unwind Library
PHSS_36350 aC++ Runtime (A.06.15)
PHSS_36354 assembler patch

```

The following kernel tunables were set, in addition to the defaults set by the Mission Critical OE:

```

maxdsiz=3221225472
maxssiz=401604608
maxrsessiz=41943040

```

Platform Notes

The "cpuconfig" EFI command was used prior to booting to deconfigure processors.

Although two cores were enabled during testing, the SPEC CPU2006 benchmarks used only one core.

The setboot command was used to disable hyperthreading.



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

HP Integrity rx3600 (1.66GHz/18MB Dual-Core Intel Itanium)

SPECint2006 = 16.8

SPECint_base2006 = 15.6

CPU2006 license: 03

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Sep-2007

Hardware Availability: Nov-2007

Software Availability: Sep-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`

`/opt/smartheap/SmartHeap_8.1/lib/libsmartheapC.a /opt/smartheap/SmartHeap_8.1/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

HP Integrity rx3600 (1.66GHz/18MB Dual-Core Intel Itanium)

SPECint2006 = 16.8

SPECint_base2006 = 15.6

CPU2006 license: 03

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Sep-2007

Hardware Availability: Nov-2007

Software Availability: Sep-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.hammer: +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.hammer

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
/opt/smartheap/SmartHeap_8.1/lib/libsmartheapC.a /opt/smartheap/SmartHeap_8.1/lib/libsmar

473.astar: +Ofaster +Otype_safety=ansi -Wl,-a,archive_shared
-Wl,+pd,64M -Wl,+pi,64M +Onoparmsoverlap
/opt/smartheap/SmartHeap_8.1/lib/libsmartheapC.a /opt/smartheap/SmartHeap_8.1/lib/libsmar

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
/opt/smartheap/SmartHeap_8.1/lib/libsmartheapC.a /opt/smartheap/SmartHeap_8.1/lib/libsmar

The flags file that was used to format this result can be browsed at

http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.07.html

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

http://www.spec.org/cpu2006/flags/CPU2006_flags.20090714.07.xml



SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Hewlett-Packard Company

HP Integrity rx3600 (1.66GHz/18MB Dual-Core Intel Itanium)

SPECint2006 = 16.8

SPECint_base2006 = 15.6

CPU2006 license: 03

Test sponsor: Hewlett-Packard Company

Tested by: Hewlett-Packard Company

Test date: Sep-2007

Hardware Availability: Nov-2007

Software Availability: Sep-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 v1.0.1.
Report generated on Tue Jul 22 14:19:04 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 9 November 2007.