



SPEC® CFP2006 Result

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Hewlett-Packard Company

SPECfp®2006 = 16.5

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

SPECfp_base2006 = 15.9

CPU2006 license: 03

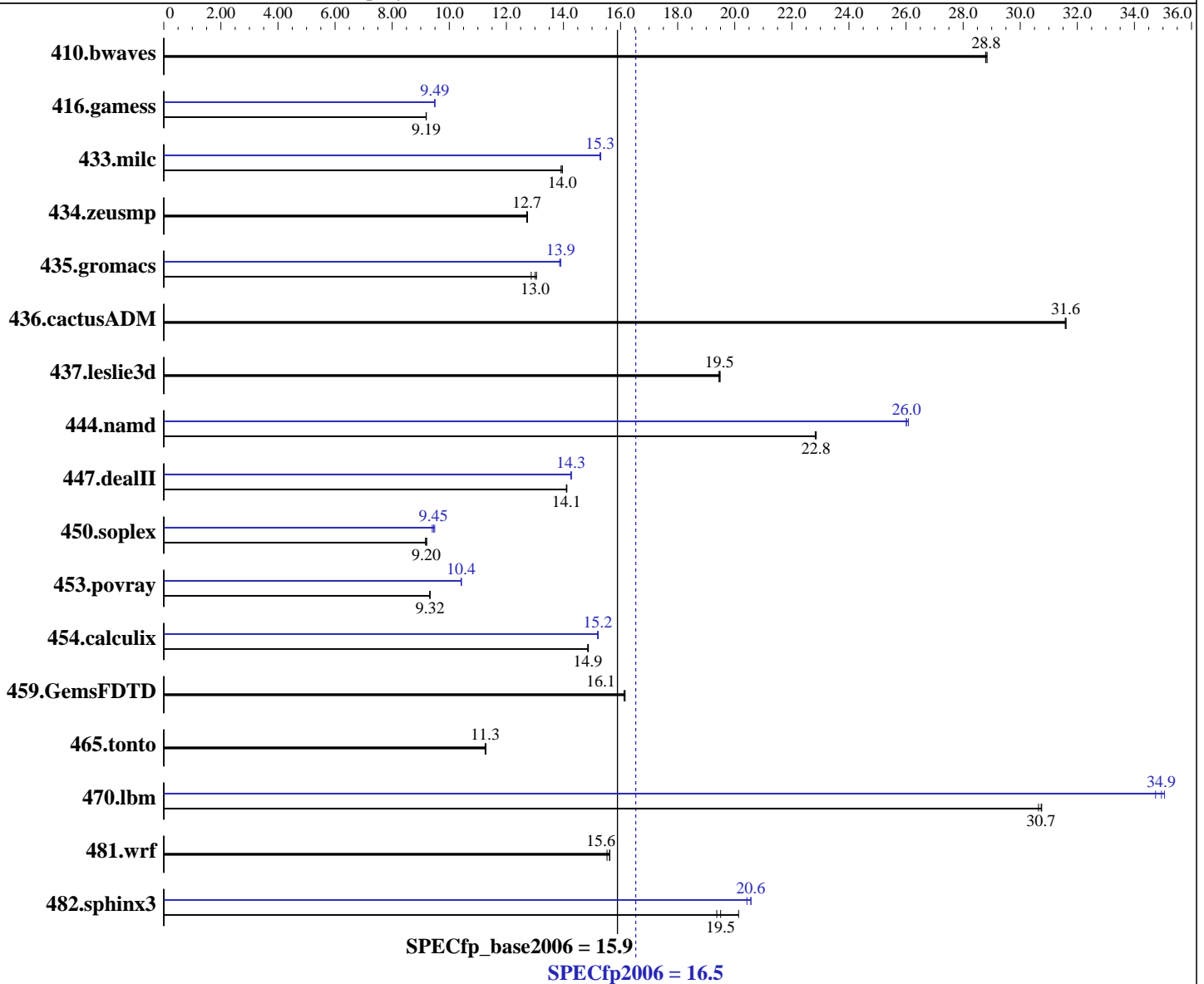
Test date: Jan-2007

Test sponsor: Hewlett-Packard Company

Hardware Availability: Feb-2007

Tested by: Hewlett-Packard Company

Software Availability: Nov-2006



Hardware

CPU Name: Dual-Core Intel Itanium 2 9040
 CPU Characteristics: 1.6GHz/18MB, 533MHz FSB
 CPU MHz: 1600
 FPU: Integrated
 CPU(s) enabled: 1 core, 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

Continued on next page

Software

Operating System: Red Hat Enterprise Linux AS release 4 (Update 4)
 Compiler: Intel C++ Compiler 9.1 for Linux (Build 20061105)
 Intel Fortran Compiler 9.1 for Linux (Build 20061105)
 Auto Parallel: No
 File System: ext3
 System State: Multi-user

Continued on next page



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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

Base Pointers: 64-bit
Peak Pointers: 64-bit
Other Software: None

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	471	28.8	472	28.8	472	28.8	471	28.8	472	28.8	472	28.8
416.gamess	2129	9.19	2131	9.19	2130	9.19	2063	9.49	2063	9.49	2062	9.49
433.milc	657	14.0	660	13.9	658	14.0	600	15.3	601	15.3	601	15.3
434.zeusmp	715	12.7	714	12.7	716	12.7	715	12.7	714	12.7	716	12.7
435.gromacs	547	13.1	549	13.0	555	12.9	515	13.9	514	13.9	514	13.9
436.cactusADM	378	31.6	378	31.6	378	31.6	378	31.6	378	31.6	378	31.6
437.leslie3d	483	19.5	482	19.5	483	19.4	483	19.5	482	19.5	483	19.4
444.namd	351	22.8	351	22.8	351	22.9	308	26.0	307	26.1	308	26.0
447.dealII	811	14.1	810	14.1	811	14.1	802	14.3	802	14.3	801	14.3
450.soplex	906	9.21	907	9.20	910	9.16	883	9.45	879	9.49	887	9.40
453.povray	571	9.32	570	9.33	571	9.31	511	10.4	510	10.4	511	10.4
454.calculix	555	14.9	555	14.9	556	14.8	543	15.2	542	15.2	543	15.2
459.GemsFDTD	658	16.1	658	16.1	657	16.2	658	16.1	658	16.1	657	16.2
465.tonto	872	11.3	873	11.3	874	11.3	872	11.3	873	11.3	874	11.3
470.lbm	447	30.7	447	30.8	448	30.6	392	35.1	393	34.9	395	34.7
481.wrf	719	15.5	715	15.6	715	15.6	719	15.5	715	15.6	715	15.6
482.sphinx3	968	20.1	999	19.5	1006	19.4	948	20.6	948	20.6	954	20.4

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

Operating System Notes

stacksize set to unlimited prior to run

system was booted uniprocessor by setting "maxcpus=0"
kernel parameter in elilo.conf

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

Continued on next page



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Base Compiler Invocation (Continued)

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icc ifort

Base Portability Flags

410.bwaves: -DSPEC_CPU_LP64
 416.gamess: -DSPEC_CPU_LP64
 433.milc: -DSPEC_CPU_LP64
 434.zeusmp: -DSPEC_CPU_LP64
 435.gromacs: -DSPEC_CPU_LP64 -nofor_main
 436.cactusADM: -DSPEC_CPU_LP64 -nofor_main
 437.leslie3d: -DSPEC_CPU_LP64
 444.namd: -DSPEC_CPU_LP64
 447.dealII: -DSPEC_CPU_LP64
 450.soplex: -DSPEC_CPU_LP64
 453.povray: -DSPEC_CPU_LP64
 454.calculix: -DSPEC_CPU_LP64 -nofor_main
 459.GemsFDTD: -DSPEC_CPU_LP64
 465.tonto: -DSPEC_CPU_LP64
 470.lbm: -DSPEC_CPU_LP64
 481.wrf: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX -DSPEC_CPU_CASE_FLAG
 482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:

-fast -IPF_fp_relaxed -ansi-alias

C++ benchmarks:

-fast -IPF_fp_relaxed -ansi-alias

Fortran benchmarks:

-fast -IPF_fp_relaxed

Benchmarks using both Fortran and C:

-fast -IPF_fp_relaxed -ansi-alias

Peak Compiler Invocation

C benchmarks:

icc

Continued on next page



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Peak Compiler Invocation (Continued)

C++ benchmarks:
icpc

Fortran benchmarks:
ifort

Benchmarks using both Fortran and C:
icc ifort

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

433.milc: -fast -IPF_fp_relaxed -ansi-alias -fno-alias

470.lbm: -prof_gen(pass 1) -prof_use(pass 2) -fast -IPF_fp_relaxed
-ansi-alias

482.sphinx3: Same as 470.lbm

C++ benchmarks:

444.namd: -prof_gen(pass 1) -prof_use(pass 2) -fast -IPF_fp_relaxed
-no-prefetch -fno-alias

447.dealIII: -fast -IPF_fp_relaxed -ansi-alias -no-alias-args

450.soplex: -fast -IPF_fp_relaxed -ansi-alias -inline-factor=150

453.povray: -prof_gen(pass 1) -prof_use(pass 2) -fast -IPF_fp_relaxed
-ansi-alias

Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: -fast -IPF_fp_relaxed -inline-factor=150

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

Continued on next page



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Peak Optimization Flags (Continued)

459.GemsFDTD: basepeak = yes

465.tonto: basepeak = yes

Benchmarks using both Fortran and C:

435.gromacs: -prof_gen(pass 1) -prof_use(pass 2) -fast -IPF_fp_relaxed
-fno-alias -inline-factor=150

436.cactusADM: basepeak = yes

454.calculix: -fast -IPF_fp_relaxed -fno-alias

481.wrf: basepeak = yes

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

http://www.spec.org/cpu2006/flags/IPF_intel91_flags.20090715.00.html

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

http://www.spec.org/cpu2006/flags/IPF_intel91_flags.20090715.00.xml

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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 10:19:34 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 6 February 2007.