



SPEC® CFP2006 Result

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Hewlett-Packard Company

SPECfp®2006 = 16.5

HP Integrity rx3600
(1.6GHz/18MB Dual-Core Intel Itanium 2)

SPECfp_base2006 = 15.9

CPU2006 license: 03

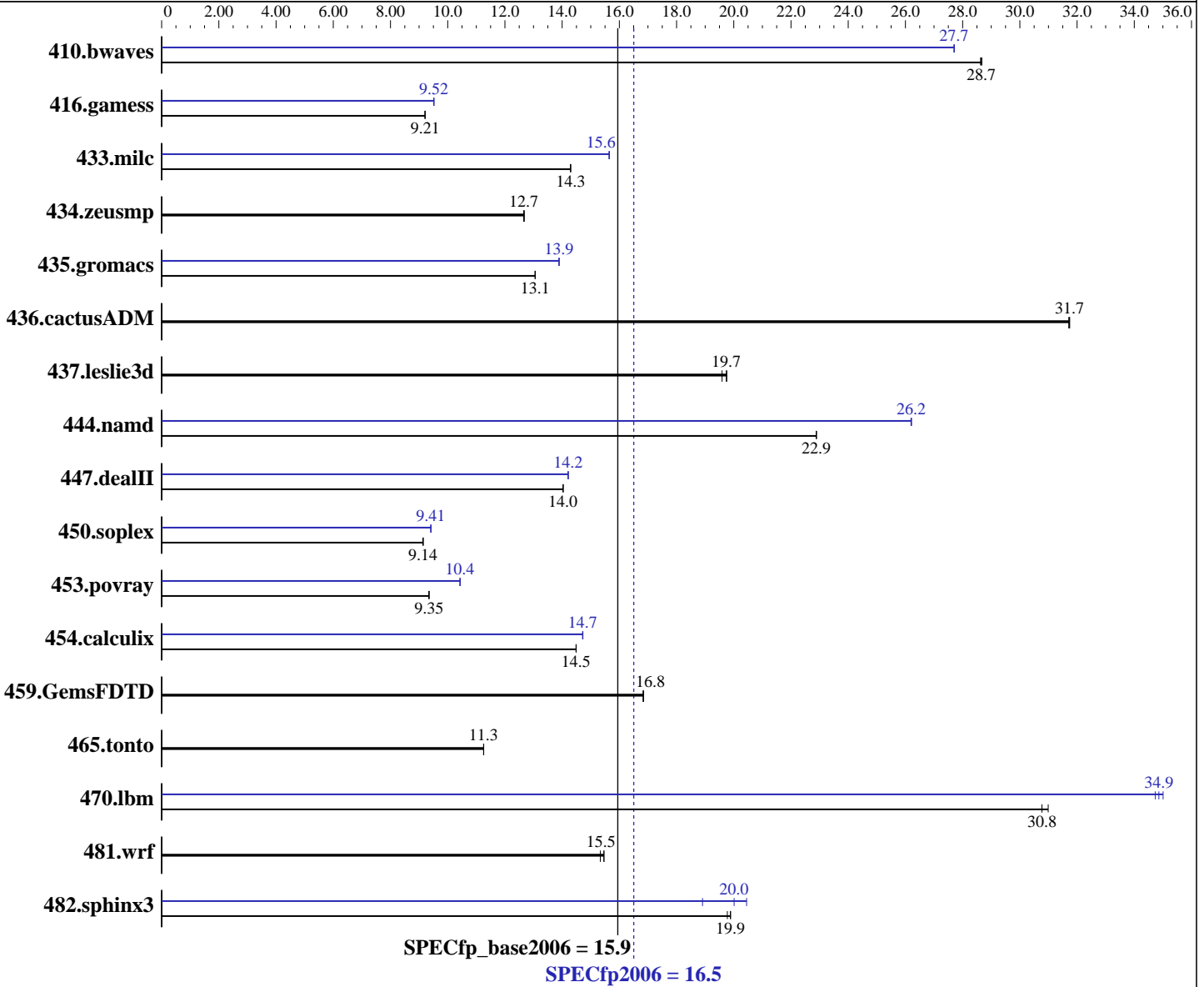
Test date: Nov-2006

Test sponsor: Hewlett-Packard Company

Hardware Availability: Nov-2006

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

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Software

Operating System: Red Hat Enterprise Linux AS release 4 (Update 4)
 Compiler: Intel C++ Compiler for Itanium version 9.1 (Build 20060818)
 Intel Fortran90 Compiler for Itanium version 9.1 (Build 20060818)
 Auto Parallel: No
 File System: ext3
 System State: Multi-user
 Base Pointers: 64-bit

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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: 2x73GB 10K RPM SAS (mirrored)
Other Hardware: None

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	475	28.6	474	28.7	474	28.7	490	27.7	491	27.7	491	27.7
416.gamess	2126	9.21	2126	9.21	2127	9.21	2058	9.52	2057	9.52	2058	9.52
433.milc	642	14.3	642	14.3	642	14.3	587	15.6	587	15.6	587	15.6
434.zeusmp	719	12.7	718	12.7	719	12.7	719	12.7	718	12.7	719	12.7
435.gromacs	547	13.1	547	13.1	547	13.1	514	13.9	514	13.9	514	13.9
436.cactusADM	377	31.7	377	31.7	377	31.7	377	31.7	377	31.7	377	31.7
437.leslie3d	476	19.8	476	19.7	480	19.6	476	19.8	476	19.7	480	19.6
444.namd	350	22.9	350	22.9	350	22.9	306	26.2	306	26.2	306	26.2
447.dealII	815	14.0	815	14.0	815	14.0	805	14.2	805	14.2	805	14.2
450.soplex	912	9.15	914	9.13	913	9.14	886	9.41	886	9.41	886	9.41
453.povray	569	9.35	569	9.34	569	9.35	510	10.4	510	10.4	510	10.4
454.calculix	569	14.5	569	14.5	569	14.5	560	14.7	561	14.7	561	14.7
459.GemsFDTD	630	16.8	630	16.8	630	16.8	630	16.8	630	16.8	630	16.8
465.tonto	874	11.3	874	11.3	874	11.3	874	11.3	874	11.3	874	11.3
470.lbm	446	30.8	447	30.8	443	31.0	396	34.7	394	34.9	392	35.0
481.wrf	723	15.5	722	15.5	728	15.3	723	15.5	722	15.5	728	15.3
482.sphinx3	980	19.9	986	19.8	980	19.9	953	20.4	1031	18.9	974	20.0

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

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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

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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.dealII: -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: -prof_gen(pass 1) -prof_use(pass 2) -fast -IPF_fp_relaxed

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

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

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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.html

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

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

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

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