



SPEC® CFP2006 Result

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Hewlett-Packard Company

SPECfp®2006 = 16.6

HP Integrity BL860c
(1.6GHz/18MB Dual-Core Intel Itanium 2)

SPECfp_base2006 = 16.0

CPU2006 license: 03

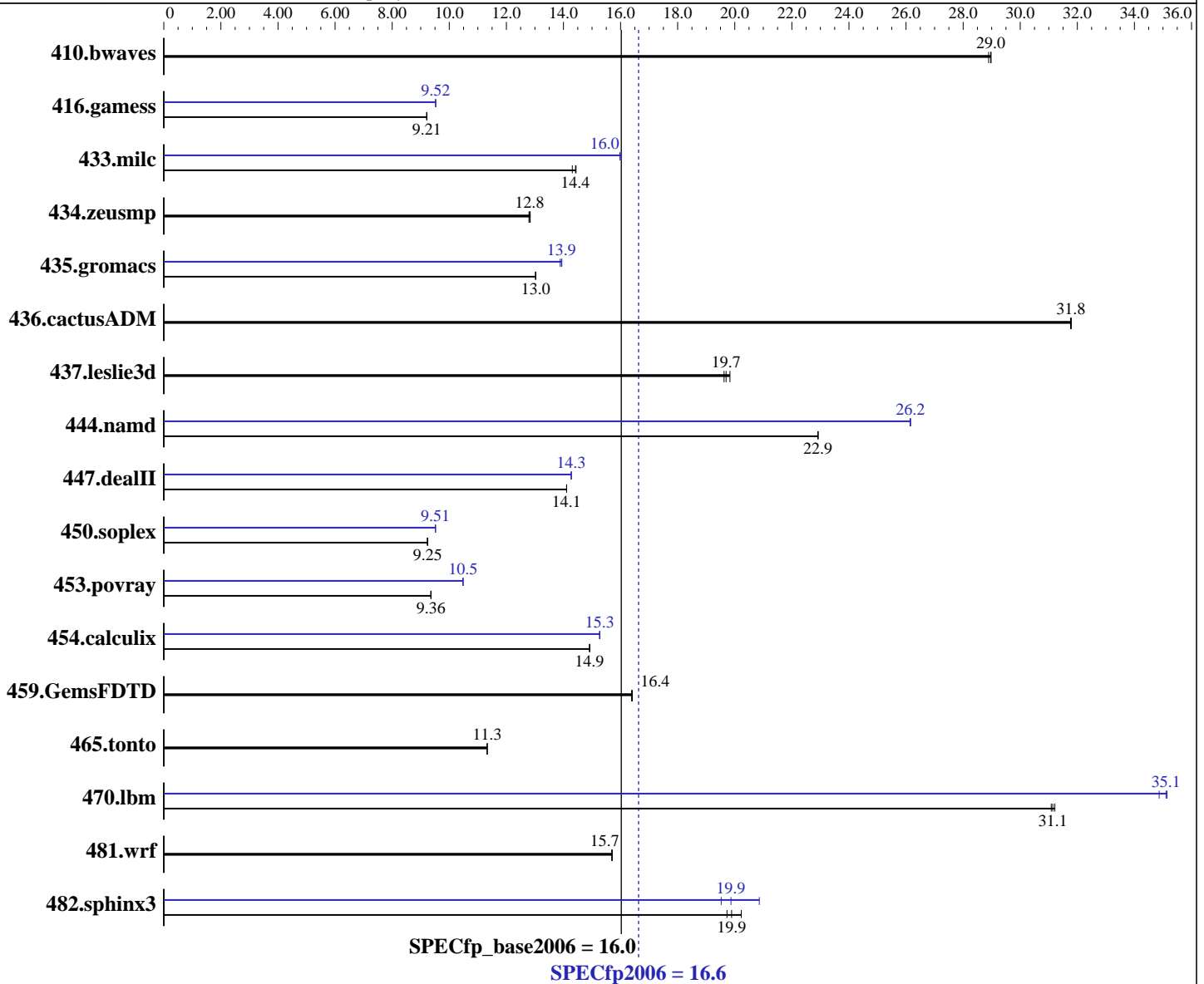
Test date: Feb-2007

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

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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

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L3 Cache: 9 MB I+D on chip per core
Other Cache: None
Memory: 12 GB (12x1GB DIMMs)
Disk Subsystem: 36GB 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	470	28.9	469	29.0	469	29.0	470	28.9	469	29.0	469	29.0
416.gamess	2125	9.21	2125	9.21	2125	9.21	2057	9.52	2056	9.52	2057	9.52
433.milc	642	14.3	636	14.4	637	14.4	575	16.0	574	16.0	572	16.0
434.zeusmp	709	12.8	711	12.8	710	12.8	709	12.8	711	12.8	710	12.8
435.gromacs	548	13.0	548	13.0	548	13.0	512	13.9	514	13.9	513	13.9
436.cactusADM	376	31.8	376	31.8	376	31.8	376	31.8	376	31.8	376	31.8
437.leslie3d	477	19.7	474	19.8	479	19.6	477	19.7	474	19.8	479	19.6
444.namd	350	22.9	350	22.9	350	22.9	307	26.2	307	26.2	307	26.1
447.dealII	811	14.1	811	14.1	811	14.1	801	14.3	802	14.3	801	14.3
450.soplex	902	9.25	902	9.25	904	9.23	876	9.52	877	9.51	877	9.51
453.povray	568	9.36	569	9.36	568	9.36	507	10.5	508	10.5	507	10.5
454.calculix	553	14.9	553	14.9	553	14.9	540	15.3	540	15.3	540	15.3
459.GemsFDTD	647	16.4	647	16.4	646	16.4	647	16.4	647	16.4	646	16.4
465.tonto	869	11.3	869	11.3	869	11.3	869	11.3	869	11.3	869	11.3
470.lbm	442	31.1	440	31.2	441	31.1	391	35.1	394	34.9	391	35.1
481.wrf	711	15.7	712	15.7	711	15.7	711	15.7	712	15.7	711	15.7
482.sphinx3	963	20.2	980	19.9	988	19.7	998	19.5	981	19.9	934	20.9

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.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

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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 other inquiries, please contact webmaster@spec.org.

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