SPEC® CFP2006 Result

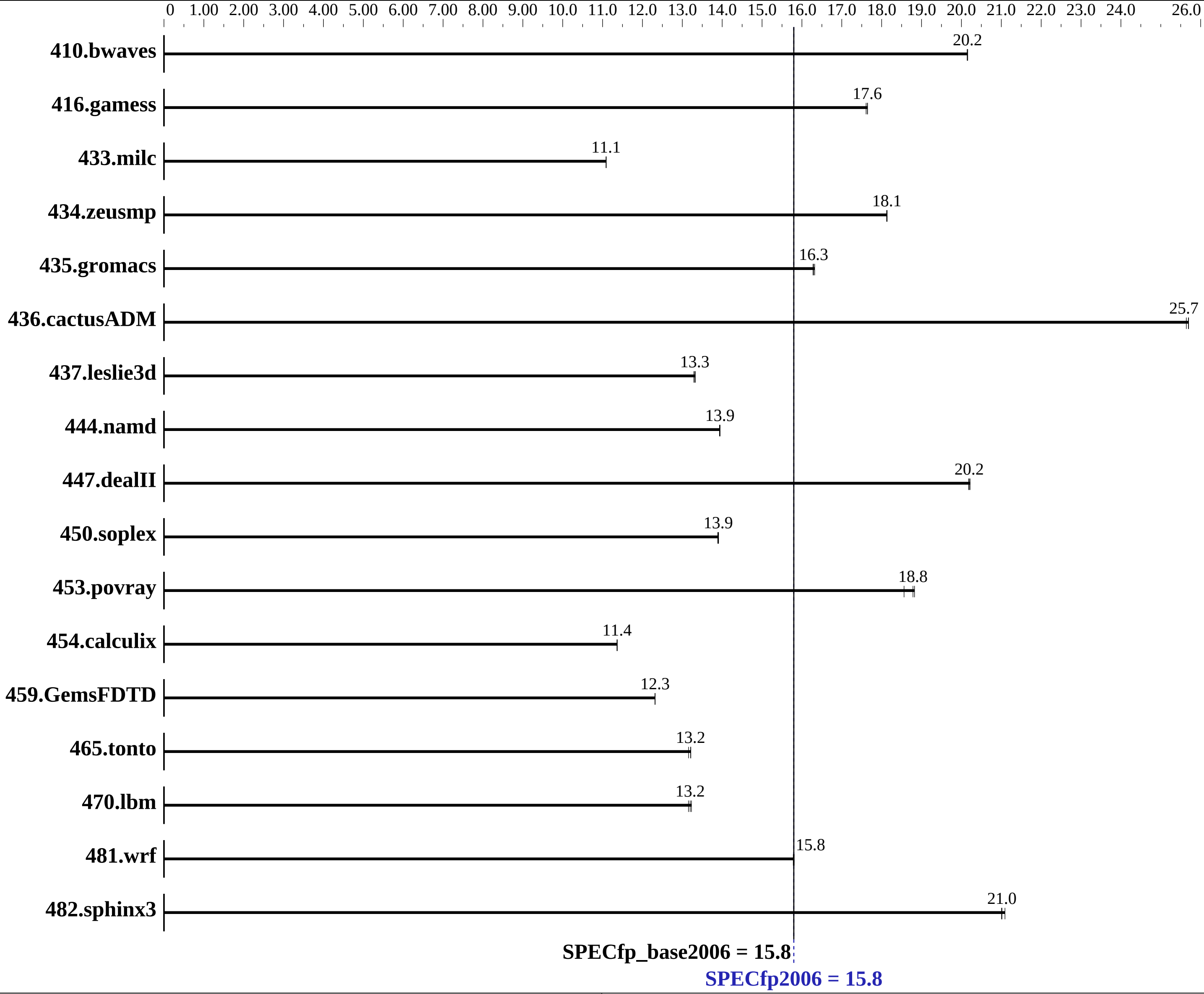
Dell Inc.
(Test Sponsor: The Portland Group)

PowerEdge 1950

SPECfp®2006 = 15.8

SPECfp_base2006 = 15.8

CPU2006 license: 94		**Test date:**	Sep-2006
Test sponsor:	The Portland Group	**Hardware Availability:**	Jul-2006
Tested by:	The Portland Group	**Software Availability:**	Sep-2006



Hardware

CPU Name:	Intel Xeon 5160
CPU Characteristics:	1333 MHz system bus
CPU MHz:	3000
FPU:	Integrated
CPU(s) enabled:	2 cores, 1 chip, 2 cores/chip
CPU(s) orderable:	1 to 2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	4 MB I+D on chip per chip

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Software

Operating System:	SLES 10 (Kernel 2.6.16.21-0.8-smp)
Compiler:	The Portland Group (PGI) PGI pgf90 6.2-3 Fortran Compiler PGI pgcc 6.2-3 C Compiler PGI pgCC 6.2-3 C++ Compiler
Auto Parallel:	Yes
File System:	ReiserFS
System State:	Multi-user

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L3 Cache: None
Other Cache: None
Memory: 4 GB (4x 1GB, Samsung M395T2953CZ4 DDR2 FBD 667 CL5-5-5)
Disk Subsystem: Hitachi Deskstar SATA, 164 GB, 7200 RPM
Other Hardware: None

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

Results Table

	Base						Peak					
Benchmark	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
410.bwaves	**674**	**20.2**	674	20.2	675	20.1	**674**	**20.2**	674	20.2	675	20.1
416.gamess	1110	17.6	1112	17.6	**1110**	**17.6**	1110	17.6	1112	17.6	**1110**	**17.6**
433.milc	828	11.1	**828**	**11.1**	828	11.1	828	11.1	**828**	**11.1**	828	11.1
434.zeusmp	502	18.1	**502**	**18.1**	502	18.1	502	18.1	**502**	**18.1**	502	18.1
435.gromacs	438	16.3	**438**	**16.3**	439	16.3	438	16.3	**438**	**16.3**	439	16.3
436.cactusADM	**465**	**25.7**	465	25.7	466	25.6	**465**	**25.7**	465	25.7	466	25.6
437.leslie3d	707	13.3	**706**	**13.3**	705	13.3	707	13.3	**706**	**13.3**	705	13.3
444.namd	**575**	**13.9**	576	13.9	575	13.9	**575**	**13.9**	576	13.9	575	13.9
447.dealII	567	20.2	**566**	**20.2**	566	20.2	567	20.2	**566**	**20.2**	566	20.2
450.soplex	**600**	**13.9**	600	13.9	600	13.9	**600**	**13.9**	600	13.9	600	13.9
453.povray	287	18.6	**283**	**18.8**	283	18.8	287	18.6	**283**	**18.8**	283	18.8
454.calculix	726	11.4	726	11.4	**726**	**11.4**	726	11.4	726	11.4	**726**	**11.4**
459.GemsFDTD	861	12.3	**861**	**12.3**	862	12.3	861	12.3	**861**	**12.3**	862	12.3
465.tonto	748	13.2	**745**	**13.2**	745	13.2	748	13.2	**745**	**13.2**	745	13.2
470.lbm	1039	13.2	**1041**	**13.2**	1045	13.2	1039	13.2	**1041**	**13.2**	1045	13.2
481.wrf	**707**	**15.8**	707	15.8	708	15.8	**707**	**15.8**	707	15.8	708	15.8
482.sphinx3	924	21.1	**927**	**21.0**	928	21.0	924	21.1	**927**	**21.0**	928	21.0

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

General Notes

```
Environment stack size set to 'unlimited'
For parallel runs (those compiled with "-Mconcur")
the following environment variables were set:
  NCPUS = 2
  MP_BIND = yes
  MP_BLIST = 1,0

NCPUS=n sets the number of threads to use to "n".
MP_BIND=yes instructs the runtime to bind a thread to a core.
MP_BLIST defines the thread-core relationship.
The 4 1GB memory modules populated the first DIMM socket
of each channel (0-3).
```

Base Compiler Invocation

C benchmarks:
`pgcc`

C++ benchmarks:
`pgCC`

Fortran benchmarks:
`pgf90`

Benchmarks using both Fortran and C:
`pgcc pgf90`

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 -Mnomain
436.cactusADM:	-DSPEC_CPU_LP64 -Mnomain
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 -Mnomain
459.GemsFDTD:	-DSPEC_CPU_LP64
465.tonto:	-DSPEC_CPU_LP64
470.lbm:	-DSPEC_CPU_LP64
481.wrf:	-DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX
482.sphinx3:	-DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
`-fastsse -Mconcur -Mipa=fast -Mipa=inline -Mfprelaxed=rsqrt -Msmartalloc -Msignextend -tp core2-64`

C++ benchmarks:
`-fastsse -Mipa=fast -Mipa=inline -Mfprelaxed=rsqrt -Msmartalloc -tp core2-64`

Fortran benchmarks:
`-fastsse -Mconcur -Mipa=fast -Mipa=inline -Mfprelaxed=rsqrt -Msmartalloc -tp core2-64`

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Base Optimization Flags (Continued)

Benchmarks using both Fortran and C:
`-fastsse -Mconcur -Mipa=fast -Mipa=inline -Mfprelaxed=rsqrt`
`-Msmartalloc -Msignextend -tp core2-64`

Base Other Flags

C benchmarks:
`-w`

C++ benchmarks:
`-w`

Fortran benchmarks:
`-w`

Benchmarks using both Fortran and C:
`-w`

Peak Compiler Invocation

C benchmarks:
`pgcc`

C++ benchmarks:
`pgCC`

Fortran benchmarks:
`pgf90`

Benchmarks using both Fortran and C:
`pgcc pgf90`

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

433.milc: `basepeak = yes`

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Peak Optimization Flags (Continued)

470.lbm: `basepeak = yes`

482.sphinx3: `basepeak = yes`

C++ benchmarks:

444.namd: `basepeak = yes`

447.dealII: `basepeak = yes`

450.soplex: `basepeak = yes`

453.povray: `basepeak = yes`

Fortran benchmarks:

410.bwaves: `basepeak = yes`

416.gamess: `basepeak = yes`

434.zeusmp: `basepeak = yes`

437.leslie3d: `basepeak = yes`

459.GemsFDTD: `basepeak = yes`

465.tonto: `basepeak = yes`

Benchmarks using both Fortran and C:

435.gromacs: `basepeak = yes`

436.cactusADM: `basepeak = yes`

454.calculix: `basepeak = yes`

481.wrf: `basepeak = yes`

Peak Other Flags

C benchmarks:
`-w`

C++ benchmarks:
`-w`

Fortran benchmarks:
`-w`

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Peak Other Flags (Continued)

Benchmarks using both Fortran and C:
`-w`

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/pgi62_flags.20090715.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/pgi62_flags.20090715.xml

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

Tested with SPEC CPU2006 v1.0.
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