SPEC® CFP2006 Result

Sun Microsystems

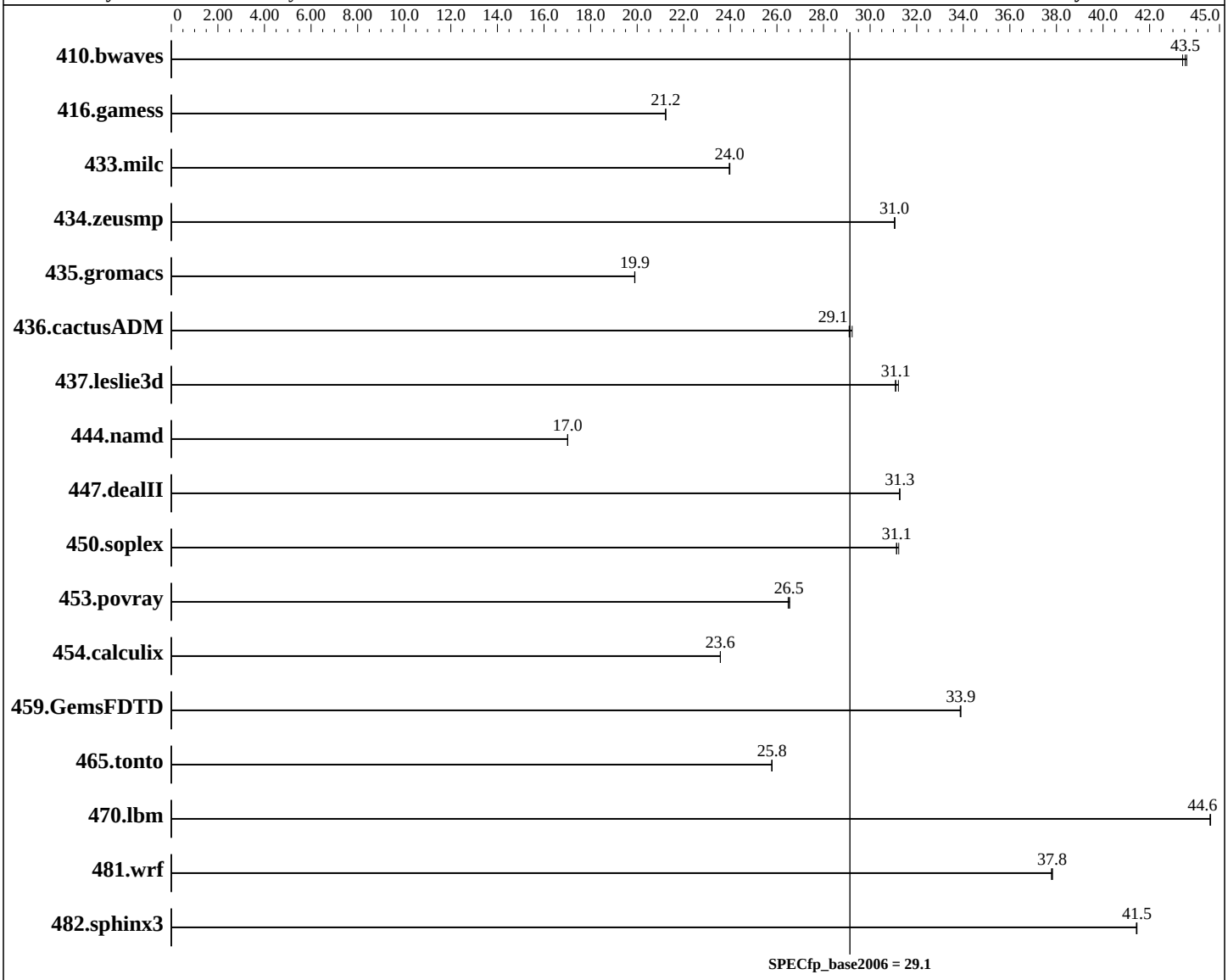
Sun Blade X6270 (Sun Studio no autopar, base only)

SPECfp®2006 = Not Run

SPECfp_base2006 = 29.1

CPU2006 license: 6
Test sponsor: Sun Microsystems
Tested by: Sun Microsystems

Test date: May-2009
Hardware Availability: Apr-2009
Software Availability: Jun-2009



Hardware

CPU Name:	Intel Xeon X5570
CPU Characteristics:	Intel Turbo Boost Technology up to 3.33 GHz
CPU MHz:	2933
FPU:	Integrated
CPU(s) enabled:	8 cores, 2 chips, 4 cores/chip, 2 threads/core
CPU(s) orderable:	1 or 2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	256 KB I+D on chip per core

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Software

Operating System:	OpenSolaris 2008.11
Compiler:	Sun Studio 12 Update 1 (internal build 43)
Auto Parallel:	No
File System:	zfs with gzip compression
System State:	Default
Base Pointers:	64-bit
Peak Pointers:	Not Applicable

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L3 Cache: 8 MB I+D on chip per chip
Other Cache: None
Memory: 24 GB (6 x 4 GB DDR3-1333)
Disk Subsystem: 1 x 146 GB Sun 10,000 RPM SAS
Other Hardware: None

Other Software: none

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	**312**	**43.5**	312	43.6	313	43.4						
416.gamess	922	21.2	923	21.2	**923**	**21.2**						
433.milc	383	24.0	**383**	**24.0**	383	24.0						
434.zeusmp	293	31.1	**293**	**31.0**	293	31.0						
435.gromacs	359	19.9	359	19.9	**359**	**19.9**						
436.cactusADM	411	29.1	**410**	**29.1**	409	29.2						
437.leslie3d	301	31.2	302	31.1	**302**	**31.1**						
444.namd	471	17.0	**471**	**17.0**	471	17.0						
447.dealII	**366**	**31.3**	366	31.3	366	31.3						
450.soplex	**268**	**31.1**	267	31.2	268	31.1						
453.povray	**201**	**26.5**	201	26.5	200	26.5						
454.calculix	**350**	**23.6**	350	23.6	350	23.6						
459.GemsFDTD	313	33.9	313	33.9	**313**	**33.9**						
465.tonto	382	25.8	**382**	**25.8**	382	25.8						
470.lbm	308	44.6	308	44.6	**308**	**44.6**						
481.wrf	296	37.8	**295**	**37.8**	295	37.8						
482.sphinx3	470	41.4	470	41.5	**470**	**41.5**						

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

Submit Notes

```
The config file option 'submit' was used, along with 'pbind', to
run each benchmark on a specific core.
```

Operating System Notes

```
ulimit -s 131072  (shell): increases stack
For more information on shell/tuning paramaters, please
see the "Platform settings" section of the flags file.

/etc/system parameters
   tune_t_fsflushr=10
   autoup=900
   set lpg_alloc_prefer=1
   set zfs:zfs_arc_max = 0x10000000
```

Platform Notes

```
AMIBIOS Build Date 1/26/09 ID 07.01.36.00
  Default BIOS settings used except:
  Intel VT-d: Disabled.  VT-d, if enabled, supports
  remapping of I/O DMA transfers for virtualization.
```

Base Compiler Invocation

C benchmarks:
cc

C++ benchmarks:
CC

Fortran benchmarks:
f90

Benchmarks using both Fortran and C:
cc f90

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

Base Optimization Flags

C benchmarks:
-fast -xipo=2 -m64 -xvector=simd -xpagesize=2M

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Base Optimization Flags (Continued)

C++ benchmarks:
`-fast -xipo=2 -m64 -xvector=simd -xpagesize=2M -library=stlport4`

Fortran benchmarks:
`-fast -xipo=2 -m64 -xvector=simd -xpagesize=2M`

Benchmarks using both Fortran and C:
`-fast`(cc) `-xipo=2 -m64 -xvector=simd -xpagesize=2M -fast`(f90)

Base Other Flags

C benchmarks:
`-V -# -xjobs=16`

C++ benchmarks:
`-verbose=diags,version -xjobs=16`

Fortran benchmarks:
`-V -v -xjobs=16`

Benchmarks using both Fortran and C:
`-V -# -xjobs=16 -v`

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Sun-OpenSolaris-Studio-x86_64.20090710.01.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Sun-OpenSolaris-Studio-x86_64.20090710.01.xml

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

Tested with SPEC CPU2006 v1.1.
Report generated on Wed Jul 23 01:34:35 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 23 June 2009.