SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

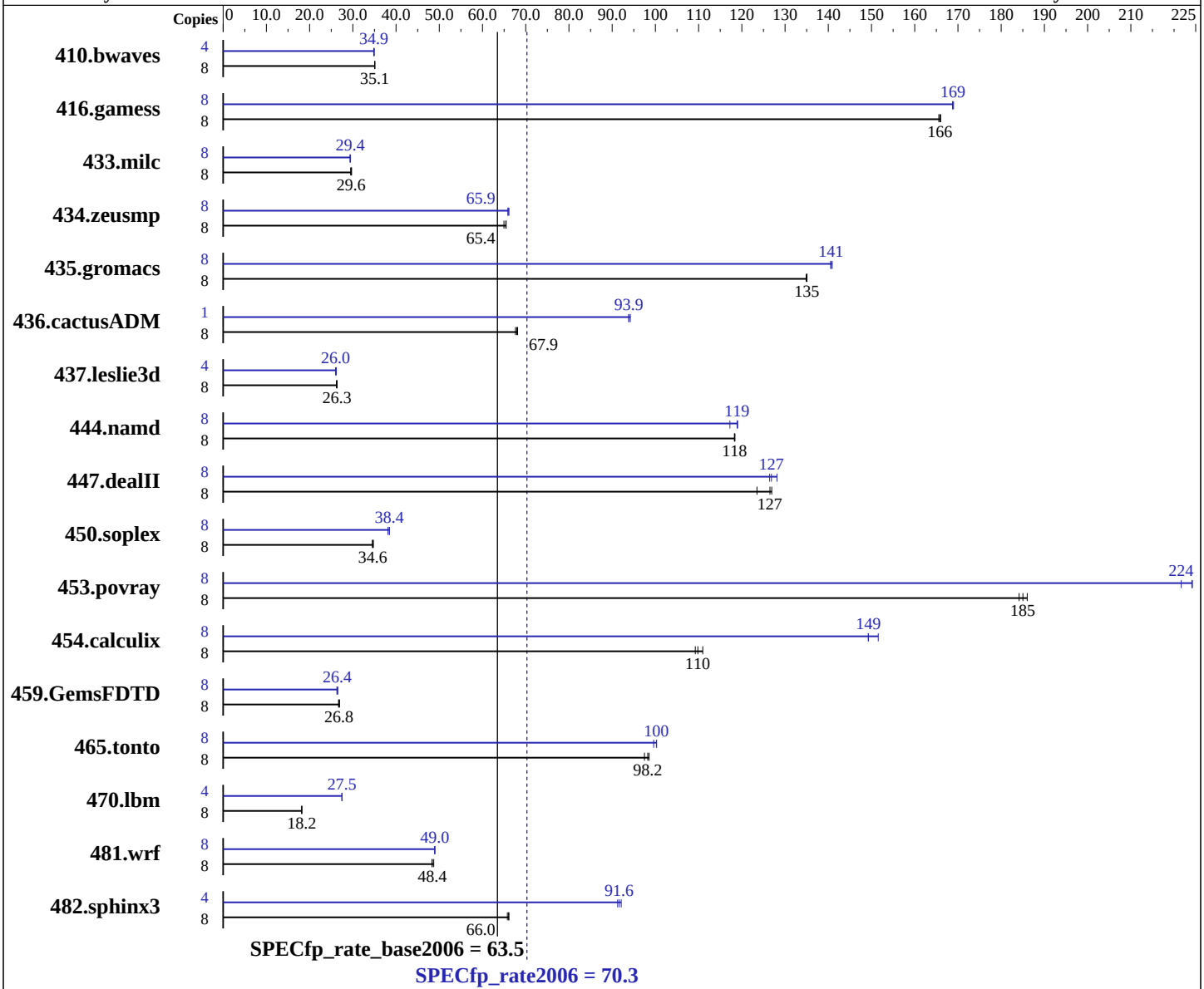
Servidor Itautec LX201 (Intel Xeon E5440)

SPECfp®_rate2006 = 70.3

SPECfp_rate_base2006 = 63.5

CPU2006 license: 9001
Test sponsor: Itautec
Tested by: Itautec

Test date: Mar-2008
Hardware Availability: Dec-2007
Software Availability: Jan-2008



Hardware

CPU Name:	Intel Xeon E5440
CPU Characteristics:	
CPU MHz:	2830
FPU:	Integrated
CPU(s) enabled:	8 cores, 2 chips, 4 cores/chip
CPU(s) orderable:	1,2 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	12 MB I+D on chip per chip, 6 MB shared / 2 cores

Continued on next page

Software

Operating System:	SUSE Linux Enterprise Server 10 (x86_64) SP1, Kernel 2.6.16.46-0.12-smp
Compiler:	Intel C++ and Fortran Compiler 10.1 for Linux Build 20080112 Package ID: l_cc_p_10.1.012, l_fc_p_10.1.012
Auto Parallel:	Yes
File System:	ReiserFS
System State:	Run Level 3 (multi-user)
Base Pointers:	64-bit

Continued on next page

SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

Servidor Itautec LX201 (Intel Xeon E5440)

SPECfp_rate2006 = 70.3

SPECfp_rate_base2006 = 63.5

CPU2006 license: 9001
Test sponsor: Itautec
Tested by: Itautec

Test date: Mar-2008
Hardware Availability: Dec-2007
Software Availability: Jan-2008

L3 Cache: None
Other Cache: None
Memory: 8 GB (8 * 1 GB PC2-5300 FBDIMM, CL-5-5-5, ECC)
Disk Subsystem: 1 x SATA-2, 160GB, 7200 RPM
Other Hardware: None

Peak Pointers: 32/64-bit
Other Software: Binutils 2.17.10.50

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	8	3096	35.1	**3101**	**35.1**	3102	35.1	4	1561	34.8	1554	35.0	**1559**	**34.9**
416.gamess	8	946	166	**945**	**166**	944	166	8	**928**	**169**	927	169	928	169
433.milc	8	2490	29.5	2471	29.7	**2478**	**29.6**	8	**2499**	**29.4**	2502	29.4	2492	29.5
434.zeusmp	8	1121	65.0	1112	65.5	**1113**	**65.4**	8	1101	66.1	1105	65.9	**1104**	**65.9**
435.gromacs	8	423	135	**423**	**135**	423	135	8	405	141	**406**	**141**	406	141
436.cactusADM	8	1403	68.1	**1408**	**67.9**	1414	67.6	1	127	94.2	127	93.8	**127**	**93.9**
437.leslie3d	8	**2855**	**26.3**	2870	26.2	2855	26.3	4	**1444**	**26.0**	1435	26.2	1445	26.0
444.namd	8	542	118	542	118	**542**	**118**	8	**540**	**119**	539	119	547	117
447.dealII	8	721	127	741	124	**723**	**127**	8	724	126	714	128	**721**	**127**
450.soplex	8	**1928**	**34.6**	1933	34.5	1919	34.8	8	1750	38.1	1734	38.5	**1736**	**38.4**
453.povray	8	229	186	**230**	**185**	231	184	8	192	222	**190**	**224**	190	224
454.calculix	8	595	111	**601**	**110**	604	109	8	435	152	**442**	**149**	442	149
459.GemsFDTD	8	**3167**	**26.8**	3180	26.7	3152	26.9	8	**3211**	**26.4**	3200	26.5	3226	26.3
465.tonto	8	**801**	**98.2**	808	97.5	799	98.5	8	785	100	**785**	**100**	790	99.6
470.lbm	8	**6046**	**18.2**	6036	18.2	6054	18.2	4	**1999**	**27.5**	2001	27.5	1999	27.5
481.wrf	8	1850	48.3	1834	48.7	**1847**	**48.4**	8	1824	49.0	**1825**	**49.0**	1827	48.9
482.sphinx3	8	2371	65.8	**2361**	**66.0**	2358	66.1	4	847	92.1	**851**	**91.6**	854	91.3

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

Compiler Invocation Notes

```
OMP_NUM_THREADS set to number of cores
KMP_STACK_SIZE set to 64M
KMP_AFFINITY set to physical,0
```

Operating System Notes

```
'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run.
'/usr/bin/taskset' used to bind benchmark copies to processors.
```

Platform Notes

```
BIOS configuration:
Hardware Prefetch Disabled
```

Base Compiler Invocation

C benchmarks:
icc

C++ benchmarks:
icpc

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_CASE_FLAG -DSPEC_CPU_LINUX
482.sphinx3: -DSPEC_CPU_LP64

Base Optimization Flags

C benchmarks:
-fast

C++ benchmarks:
-fast

Continued on next page

Base Optimization Flags (Continued)

Fortran benchmarks:
`-fast`

Benchmarks using both Fortran and C:
`-fast`

Peak Compiler Invocation

C benchmarks (except as noted below):
`/opt/intel/cc/10.1.012/bin/icc -L/opt/intel/cc/10.1.012/lib -I/opt/intel/cc/10.1.012/include`

433.milc: `icc`

C++ benchmarks (except as noted below):
`icpc`

450.soplex: `/opt/intel/cc/10.1.012/bin/icpc -L/opt/intel/cc/10.1.012/lib -I/opt/intel/cc/10.1.012/include`

Fortran benchmarks (except as noted below):
`ifort`

437.leslie3d: `/opt/intel/fc/10.1.012/bin/ifort -L/opt/intel/fc/10.1.012/lib -I/opt/intel/fc/10.1.012/include`

Benchmarks using both Fortran and C:
`icc ifort`

Peak 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`
444.namd: `-DSPEC_CPU_LP64`
447.dealII: `-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`
481.wrf: `-DSPEC_CPU_LP64 -DSPEC_CPU_CASE_FLAG -DSPEC_CPU_LINUX`

Peak Optimization Flags

C benchmarks:

433.milc: -prof-gen(pass 1) -prof-use(pass 2) -fast -fno-alias -auto-ilp32

470.lbm: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -scalar-rep- -prefetch -opt-malloc-options=3

482.sphinx3: -fast -unroll2

C++ benchmarks:

444.namd: -prof-gen(pass 1) -prof-use(pass 2) -fast -fno-alias -auto-ilp32

447.dealII: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -ansi-alias -scalar-rep-

450.soplex: -prof-gen(pass 1) -prof-use(pass 2) -fast -opt-malloc-options=3

453.povray: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4 -ansi-alias

Fortran benchmarks:

410.bwaves: -fast -prefetch

416.gamess: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -Ob0 -ansi-alias -scalar-rep-

434.zeusmp: -prof-gen(pass 1) -prof-use(pass 2) -fast

437.leslie3d: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch -opt-malloc-options=3

459.GemsFDTD: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -Ob0 -prefetch

465.tonto: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll4 -auto

Benchmarks using both Fortran and C:

435.gromacs: -prof-gen(pass 1) -prof-use(pass 2) -fast -prefetch -auto-ilp32

436.cactusADM: -prof-gen(pass 1) -prof-use(pass 2) -fast -unroll2 -prefetch -parallel -auto-ilp32

Continued on next page

Peak Optimization Flags (Continued)

454.calculix: `-fast -unroll-aggressive -auto-ilp32`

481.wrf: `-fast -auto-ilp32`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/Itautec-ic10.1-FP-intel64-linux-flags.20090713.00.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/Itautec-ic10.1-FP-intel64-linux-flags.20090713.00.xml`

SPEC and SPECfp are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2006 v1.0.1.
Report generated on Tue Jul 22 18:38:14 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 15 April 2008.