SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Bull SAS

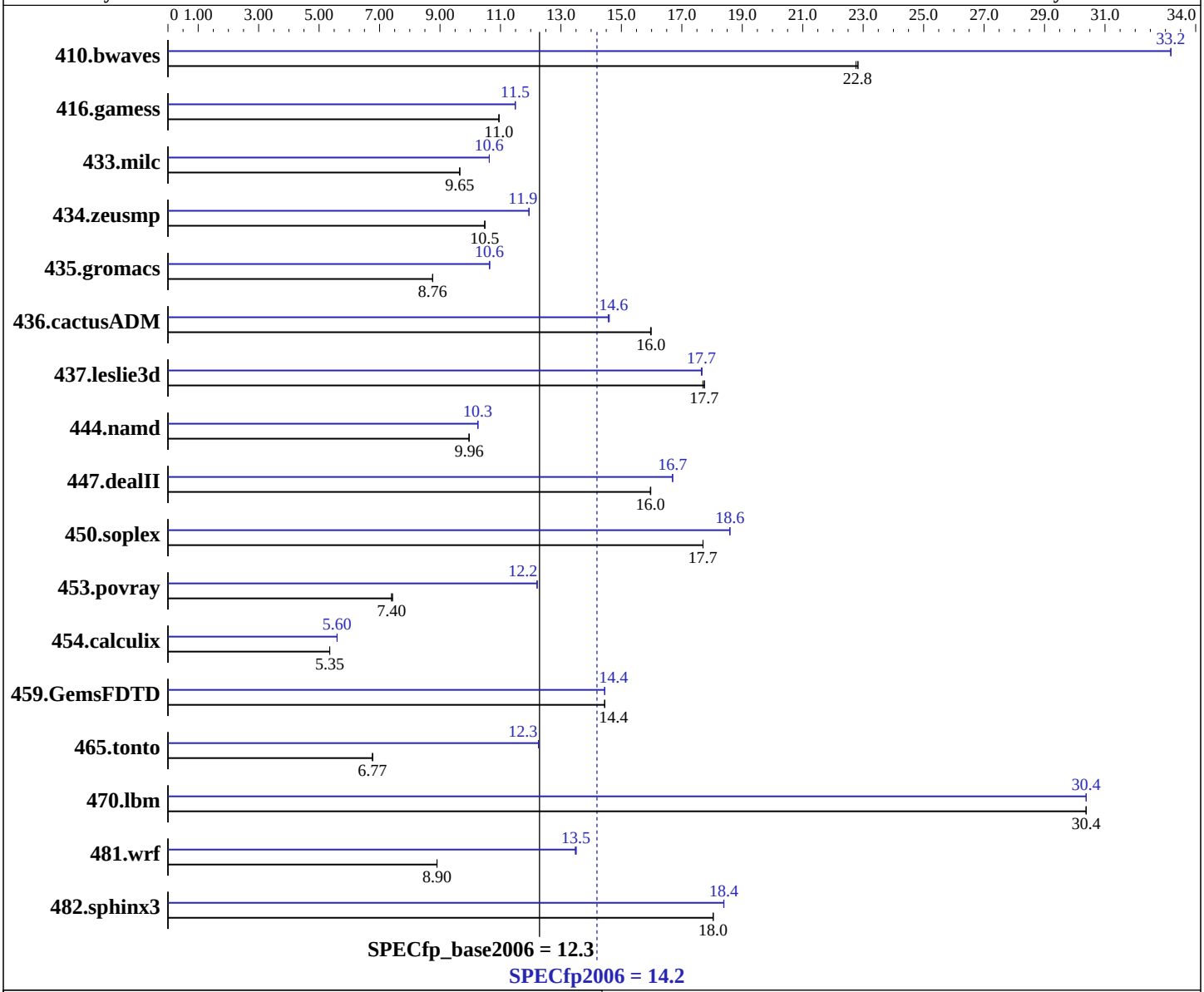
Bull Escala PL250R+ (2100 MHz, 1 CPU)

SPECfp®2006 = 14.2

SPECfp_base2006 = 12.3

CPU2006 license: 20
Test sponsor: Bull SAS
Tested by: Bull SAS

Test date: Jan-2007
Hardware Availability: Feb-2006
Software Availability: Dec-2006



Hardware

CPU Name:	POWER5+
CPU Characteristics:	
CPU MHz:	2100
FPU:	Integrated
CPU(s) enabled:	1 core, 1 chip, 2 cores/chip
CPU(s) orderable:	1 chip
Primary Cache:	64 KB I + 32 KB D on chip per core
Secondary Cache:	1920 KB I+D on chip per chip

Continued on next page

Software

Operating System:	AIX 5L V5.3
Compiler:	XL C/C++ Enterprise Edition Version 8.0 for AIX with the December 2006 PTF XL Fortran Enterprise Edition Version 10.1 for AIX with the November 2006 PTF
Auto Parallel:	No
File System:	AIX/JFS2
System State:	Multi-user
Base Pointers:	32-bit

Continued on next page

SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Bull SAS

Bull Escala PL250R+ (2100 MHz, 1 CPU)

SPECfp2006 = 14.2

SPECfp_base2006 = 12.3

CPU2006 license: 20
Test sponsor: Bull SAS
Tested by: Bull SAS

Test date: Jan-2007
Hardware Availability: Feb-2006
Software Availability: Dec-2006

L3 Cache: 36 MB I+D off chip per chip
Other Cache: None
Memory: 32 GB (8x4 GB)
Disk Subsystem: 1x73 GB SCSI, 15K RPM
Other Hardware: None

Peak Pointers: 32/64-bit
Other Software: ESSL 4.2.0.4

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	595	22.8	597	22.8	**596**	**22.8**	410	33.2	410	33.2	**410**	**33.2**
416.gamess	1788	11.0	**1788**	**11.0**	1788	11.0	1704	11.5	1704	11.5	**1704**	**11.5**
433.milc	951	9.65	**951**	**9.65**	951	9.65	864	10.6	**864**	**10.6**	864	10.6
434.zeusmp	**868**	**10.5**	869	10.5	868	10.5	**762**	**11.9**	762	11.9	762	11.9
435.gromacs	815	8.76	**815**	**8.76**	815	8.76	672	10.6	**672**	**10.6**	670	10.6
436.cactusADM	748	16.0	**748**	**16.0**	748	16.0	**820**	**14.6**	818	14.6	820	14.6
437.leslie3d	530	17.8	**530**	**17.7**	531	17.7	532	17.7	**533**	**17.7**	533	17.6
444.namd	805	9.96	805	9.97	**805**	**9.96**	**782**	**10.3**	782	10.3	782	10.3
447.dealII	717	16.0	**717**	**16.0**	716	16.0	**685**	**16.7**	685	16.7	685	16.7
450.soplex	471	17.7	471	17.7	**471**	**17.7**	**449**	**18.6**	449	18.6	449	18.6
453.povray	716	7.43	**719**	**7.40**	719	7.40	435	12.2	436	12.2	**436**	**12.2**
454.calculix	1542	5.35	**1542**	**5.35**	1541	5.35	1474	5.60	1475	5.59	**1474**	**5.60**
459.GemsFDTD	734	14.4	734	14.4	**734**	**14.4**	734	14.4	734	14.4	**734**	**14.4**
465.tonto	1454	6.77	**1454**	**6.77**	1454	6.77	802	12.3	803	12.3	**803**	**12.3**
470.lbm	**452**	**30.4**	452	30.4	452	30.4	452	30.4	452	30.4	**452**	**30.4**
481.wrf	1255	8.90	1255	8.90	**1255**	**8.90**	827	13.5	**828**	**13.5**	829	13.5
482.sphinx3	1080	18.0	1081	18.0	**1081**	**18.0**	1060	18.4	**1060**	**18.4**	1060	18.4

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

Operating System Notes

```
ulimits set to unlimited


Large page mode was set as follows:
vmo -r -o lgpg_regions=800 -o lgpg_size=16777216
1 core was deconfigured and SMT disabled using the AIX commands
smtctl -m off -w boot
bosboot -aD
shutdown -rF
drmgr -r -c cpu
```

Base Compiler Invocation

C benchmarks:
/usr/vac/bin/xlc

C++ benchmarks:
/usr/vacpp/bin/xlC

Fortran benchmarks:
/usr/bin/xlf95

Benchmarks using both Fortran and C:
/usr/vac/bin/xlc /usr/bin/xlf95

Base Portability Flags

410.bwaves: -qfixed
416.gamess: -qfixed
434.zeusmp: -qfixed
435.gromacs: -qfixed -qextname
436.cactusADM: -qfixed -qextname
437.leslie3d: -qfixed
454.calculix: -qfixed -qextname
481.wrf: -DSPEC_CPU_AIX -DNOUNDERSCORE
482.sphinx3: -qchars=signed

Base Optimization Flags

C benchmarks:
-qlanglvl=extc99 -O5 -qlargepage -D_ILS_MACROS -qipa=noobject
-blpdata -qipa=threads

C++ benchmarks:
-O5 -qlargepage -D_ILS_MACROS -qrtti=all -qipa=noobject -blpdata
-qipa=threads

Fortran benchmarks:
-O5 -qlargepage -qsmallstack=dynlenonheap -qipa=noobject -blpdata
-qipa=threads

Benchmarks using both Fortran and C:
-qlanglvl=extc99 -O5 -qlargepage -D_ILS_MACROS
-qsmallstack=dynlenonheap -qipa=noobject -blpdata -qipa=threads

Base Other Flags

C benchmarks:
```
-bmaxdata:0x40000000 -qsuppress=1500-036
```

C++ benchmarks:
```
-bmaxdata:0x50000000 -qsuppress=1500-036
```

Fortran benchmarks:
```
-bmaxdata:0x50000000 -qalias=nostd -qalias_size=200000000
-qsuppress=cmpmsg:1500-010 -qsuppress=1500-036
```

Benchmarks using both Fortran and C:
```
-bmaxdata:0x50000000 -qalias=nostd -qalias_size=200000000
-qsuppress=cmpmsg:1500-010 -qsuppress=1500-036
```

Peak Compiler Invocation

C benchmarks:
```
/usr/vac/bin/xlc
```

C++ benchmarks:
```
/usr/vacpp/bin/xlC
```

Fortran benchmarks:
```
/usr/bin/xlf95
```

Benchmarks using both Fortran and C:
```
/usr/vac/bin/xlc /usr/bin/xlf95
```

Peak Portability Flags

410.bwaves: `-qfixed`
416.gamess: `-qfixed`
434.zeusmp: `-qfixed`
435.gromacs: `-qfixed -qextname`
436.cactusADM: `-qfixed -qextname`
437.leslie3d: `-qfixed`
454.calculix: `-qfixed -qextname`
481.wrf: `-DSPEC_CPU_AIX -DNOUNDERSCORE`
482.sphinx3: `-qchars=signed`

Peak Optimization Flags

C benchmarks:

Continued on next page

Peak Optimization Flags (Continued)

433.milc: `-qlanglvl=extc99 -qpdf1`(pass 1) `-qpdf2`(pass 2) `-O5 -qlargepage -D_ILS_MACROS -qalign=natural -qipa=noobject -blpdata -qipa=threads`

470.lbm: `-qlanglvl=extc99 -O5 -qlargepage -D_ILS_MACROS -qipa=noobject -blpdata -qipa=threads`

482.sphinx3: `-qlanglvl=extc99 -qpdf1`(pass 1) `-qpdf2`(pass 2) `-O4 -qlargepage -D_ILS_MACROS -qipa=noobject -blpdata -qipa=threads`

C++ benchmarks:

444.namd: `-qpdf1`(pass 1) `-qpdf2`(pass 2) `-O5 -qlargepage -D_ILS_MACROS -qipa=noobject -blpdata -qipa=threads`

447.dealII: `-O5 -qlargepage -D_ILS_MACROS -qrtti=all -D__IBM_FAST_VECTOR -qipa=noobject -blpdata -qipa=threads`

450.soplex: `-O4 -qlargepage -D_ILS_MACROS -qipa=noobject -blpdata -qipa=threads`

453.povray: `-qpdf1`(pass 1) `-qpdf2`(pass 2) `-O5 -qlargepage -D_ILS_MACROS -q64 -qalign=natural -lmass -qipa=noobject -blpdata -qipa=threads`

Fortran benchmarks:

410.bwaves: `-O5 -qlargepage -qsmallstack=dynlenonheap -qipa=noobject -blpdata -qipa=threads`

416.gamess: `-qpdf1`(pass 1) `-qpdf2`(pass 2) `-O5 -qlargepage -qessl -lessl -qipa=noobject -blpdata -qipa=threads`

434.zeusmp: `-qpdf1`(pass 1) `-qpdf2`(pass 2) `-O5 -qlargepage -qipa=noobject -blpdata -qipa=threads`

437.leslie3d: `-O5 -qlargepage -qipa=noobject -blpdata -qipa=threads`

459.GemsFDTD: `Same as 437.leslie3d`

465.tonto: `-qpdf1`(pass 1) `-qpdf2`(pass 2) `-O5 -qlargepage -lmass -qipa=noobject -blpdata -qipa=threads`

Benchmarks using both Fortran and C:

435.gromacs: `-qlanglvl=extc99 -qpdf1`(pass 1) `-qpdf2`(pass 2) `-O5 -qlargepage -D_ILS_MACROS -qipa=noobject -blpdata -qipa=threads`

Continued on next page

Peak Optimization Flags (Continued)

436.cactusADM: -qlanglvl=extc99 -O5 -qlargepage -D_ILS_MACROS
-qipa=noobject -blpdata -qipa=threads

454.calculix: Same as 435.gromacs

481.wrf: -qlanglvl=extc99 -O5 -qlargepage -lmass
-qsmallstack=dynlenonheap -D_ILS_MACROS -qipa=noobject
-blpdata -qipa=threads

Peak Other Flags

C benchmarks:

433.milc: -bmaxdata:0x40000000 -qsuppress=1500-036

470.lbm: -bmaxdata:0x30000000 -qsuppress=1500-036

482.sphinx3: -qfdpr -qsuppress=1500-036

C++ benchmarks:

444.namd: -qfdpr -qsuppress=1500-036

447.dealII: -bmaxdata:0x50000000 -qsuppress=1500-036

450.soplex: -bmaxdata:0x40000000 -qfdpr -qsuppress=1500-036

453.povray: -qsuppress=1500-036

Fortran benchmarks (except as noted below):
-bmaxdata:0x50000000 -qsuppress=cmpmsg:1500-010 -qsuppress=1500-036

416.gamess: -bmaxdata:0x40000000 -qalias=nostd
-qsuppress=cmpmsg:1500-010 -qsuppress=1500-036

434.zeusmp: -bmaxdata:0x40000000 -qfdpr -qsuppress=cmpmsg:1500-010
-qsuppress=1500-036

437.leslie3d: -qsuppress=cmpmsg:1500-010 -qsuppress=1500-036

465.tonto: -bmaxdata:0x20000000 -qalias=nostd
-qsuppress=cmpmsg:1500-010 -qsuppress=1500-036

Benchmarks using both Fortran and C (except as noted below):
-qsuppress=cmpmsg:1500-010 -qsuppress=1500-036

436.cactusADM: -bmaxdata:0x50000000 -qsuppress=cmpmsg:1500-010
-qsuppress=1500-036

Continued on next page

Peak Other Flags (Continued)

481.wrf: `-bmaxdata:0x30000000 -qsuppress=cmpmsg:1500-010 -qsuppress=1500-036`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/cpu2006/flags/CPU2006_flags.20090715.15.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/cpu2006/flags/CPU2006_flags.20090715.15.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.
Report generated on Tue Jul 22 10:35:13 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 6 March 2007.