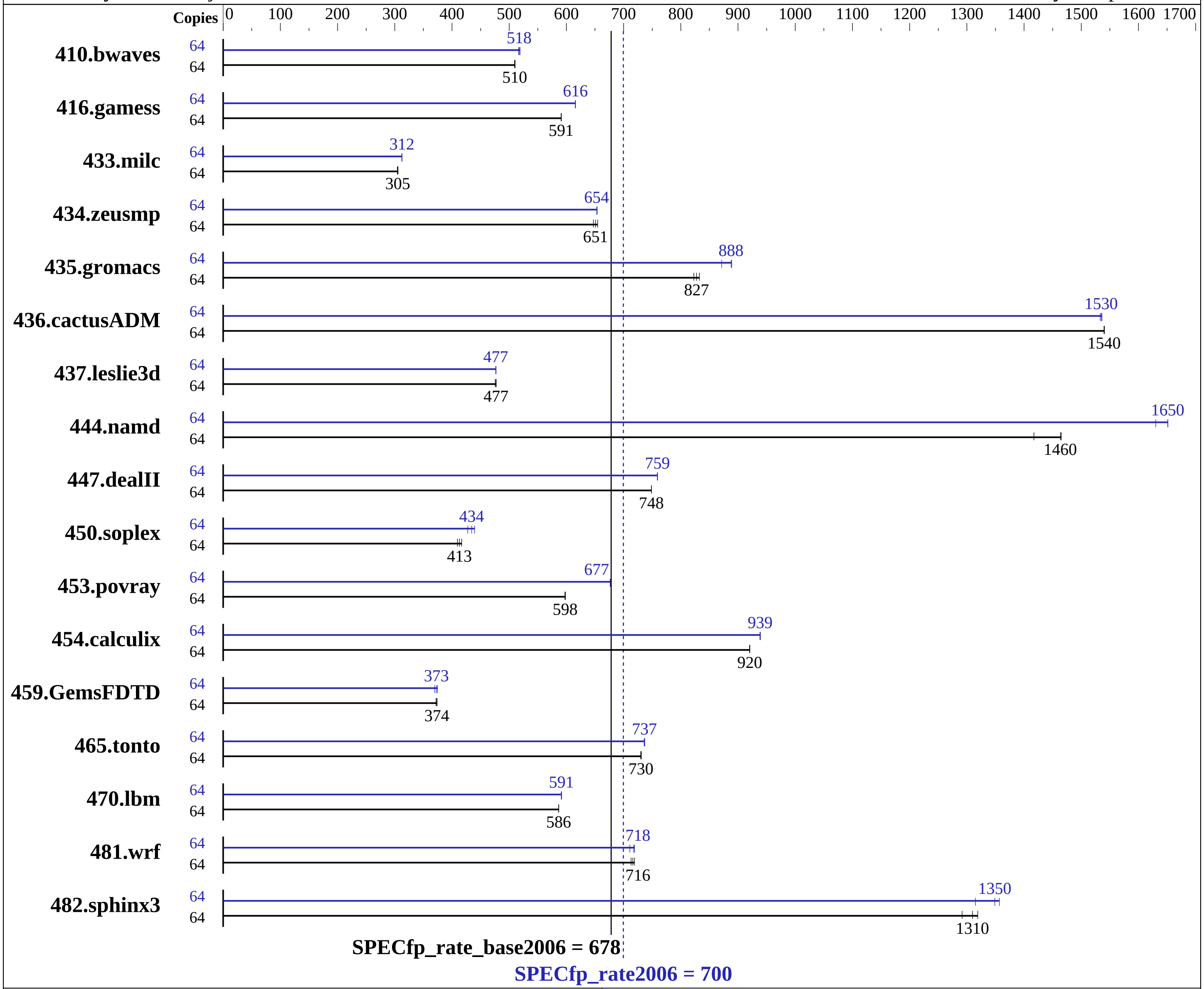
SPEC® CFP2006 Result

Fujitsu Limited
PRIMEQUEST 580

SPECfp®_rate2006 = 700

SPECfp_rate_base2006 = 678

CPU2006 license: 19		**Test date:**	Mar-2007
Test sponsor:	Fujitsu Limited	**Hardware Availability:**	Aug-2006
Tested by:	Fujitsu Limited	**Software Availability:**	Apr-2007



Hardware

CPU Name:	Dual-Core Intel Itanium 2 9050
CPU Characteristics:	1.6GHz/24MB, 533MHz FSB
CPU MHz:	1600
FPU:	Integrated
CPU(s) enabled:	64 cores, 32 chips, 2 cores/chip
CPU(s) orderable:	1-32 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

Continued on next page

Software

Operating System:	Red Hat Enterprise Linux 5 (for Intel Itanium)
Compiler:	Intel C++ Compiler for Itanium/Linux 9.1 (Build 20061105) Intel Fortran Compiler for Itanium/Linux 9.1 (Build 20061105)
Auto Parallel:	No
File System:	ext2
System State:	Single-user
Base Pointers:	64-bit

Continued on next page

L3 Cache: 12 MB I+D on chip per core
Other Cache: None
Memory: 256 GB (256 x 1GB DDR2-533 DIMMs)
Disk Subsystem: Fujitsu MAW3147NC (SCSI Ultra 320) x 2 147GB 10,025rpm, No RAID configuration
Other Hardware: None

Peak Pointers: 32/64-bit
Other Software: None

Results Table

	Base							Peak						
Benchmark	**Copies**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Copies**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
410.bwaves	64	1704	510	**1706**	**510**	1707	509	64	**1680**	**518**	1676	519	1684	516
416.gamess	64	**2121**	**591**	2122	591	2120	591	64	2036	615	2035	616	**2035**	**616**
433.milc	64	**1924**	**305**	1929	305	1922	306	64	1882	312	**1880**	**312**	1879	313
434.zeusmp	64	890	655	900	647	**895**	**651**	64	891	654	892	653	**891**	**654**
435.gromacs	64	555	823	549	832	**552**	**827**	64	**515**	**888**	524	871	514	889
436.cactusADM	64	497	1540	496	1540	**497**	**1540**	64	**498**	**1530**	498	1540	499	1530
437.leslie3d	64	**1261**	**477**	1265	476	1260	477	64	1261	477	**1262**	**477**	1262	477
444.namd	64	362	1420	**351**	**1460**	350	1470	64	315	1630	**311**	**1650**	311	1650
447.dealII	64	**978**	**748**	978	748	978	748	64	965	759	964	759	**964**	**759**
450.soplex	64	**1292**	**413**	1303	410	1280	417	64	1248	428	**1229**	**434**	1214	440
453.povray	64	569	598	570	597	**570**	**598**	64	**503**	**677**	503	677	503	676
454.calculix	64	573	921	**574**	**920**	574	920	64	562	939	**562**	**939**	563	938
459.GemsFDTD	64	**1818**	**374**	1816	374	1825	372	64	**1821**	**373**	1812	375	1836	370
465.tonto	64	863	730	861	731	**862**	**730**	64	**855**	**737**	855	737	856	736
470.lbm	64	1499	587	1500	586	**1500**	**586**	64	1488	591	1486	592	**1487**	**591**
481.wrf	64	**998**	**716**	994	719	1003	713	64	1006	711	994	719	**996**	**718**
482.sphinx3	64	**952**	**1310**	966	1290	946	1320	64	919	1360	949	1310	**925**	**1350**

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

General Notes

```
Processes are bound to CPUs using numactl and taskset.
limit stacksize unlimited
Memory system is in "Non Mirror Mode".
```

Base Compiler Invocation

C benchmarks:
    icc

C++ benchmarks:
    icpc

Continued on next page

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`

Continued on next page

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 -auto-ilp32 -ansi-alias -fno-alias -inline-min-size=2750 -inline-max-size=2750

470.lbm: -prof-gen(pass 1) -prof-use(pass 2) -fast -IPF_fp_relaxed

482.sphinx3: -prof-gen(pass 1) -prof-use(pass 2) -fast -IPF_fp_relaxed -auto-ilp32

C++ benchmarks:

444.namd: -prof-gen(pass 1) -prof-use(pass 2) -fast -auto-ilp32 -fno-alias -no-prefetch

447.dealII: -fast -IPF_fp_relaxed -ansi-alias -mtune=itanium2-p9000 -fno-alias -no-alias-args

450.soplex: -prof-gen(pass 1) -prof-use(pass 2) -O2 -static -ipo -ansi-alias -inline-factor=150

453.povray: -prof-gen(pass 1) -prof-use(pass 2) -fast -IPF_fp_relaxed -ansi-alias -inline-max-size=1000

Fortran benchmarks:

410.bwaves: -prof-gen(pass 1) -prof-use(pass 2) -fast -IPF_fp_relaxed

416.gamess: -fast -IPF_fp_relaxed -inline-max-size=100

Continued on next page

Fujitsu Limited
PRIMEQUEST 580

SPECfp_rate2006 = 700
SPECfp_rate_base2006 = 678

CPU2006 license: 19
Test sponsor: Fujitsu Limited
Tested by: Fujitsu Limited
Test date: Mar-2007
Hardware Availability: Aug-2006
Software Availability: Apr-2007

Peak Optimization Flags (Continued)

434.zeusmp: -fast -IPF_fp_relaxed

437.leslie3d: Same as 434.zeusmp

459.GemsFDTD: Same as 434.zeusmp

465.tonto: -fast -IPF_fp_relaxed -mtune=itanium2-p9000

Benchmarks using both Fortran and C:

435.gromacs: -prof-gen(pass 1) -prof-use(pass 2) -fast -IPF_fp_relaxed -fno-alias -inline-max-size=400 -inline-max-per-routine=400

436.cactusADM: -fast -IPF_fp_relaxed

454.calculix: -fast -IPF_fp_relaxed -fno-alias

481.wrf: -fast -IPF_fp_relaxed -inline-max-per-routine=100

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Fujitsu.PQ580.ipf.linux.flags.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Fujitsu.PQ580.ipf.linux.flags.xml

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 12:15:25 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 15 May 2007.