



SPEC[®] CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Supermicro

SuperServer 5039D-i
(X11SSL-F , Intel Pentium G4400)

SPECfp[®]2006 = 71.9

SPECfp_base2006 = 71.4

CPU2006 license: 001176

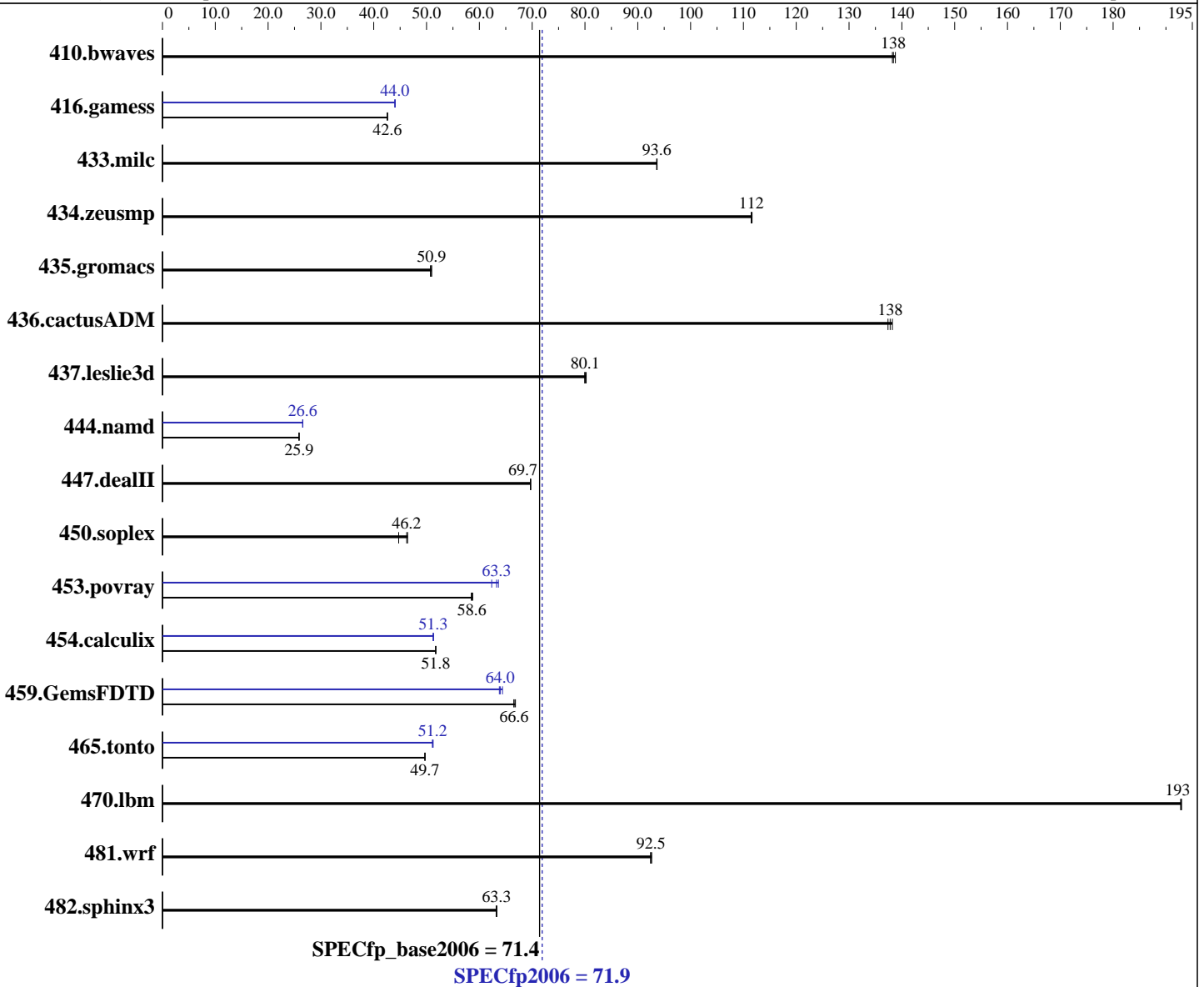
Test sponsor: Supermicro

Tested by: Supermicro

Test date: Dec-2015

Hardware Availability: Sep-2015

Software Availability: Sep-2015



Hardware

CPU Name: Intel Pentium G4400
 CPU Characteristics:
 CPU MHz: 3300
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip
 CPU(s) orderable: 1 chip
 Primary Cache: 32 KB I + 32 KB D on chip per core
 Secondary Cache: 256 KB I+D on chip per core

Continued on next page

Software

Operating System: Red Hat Enterprise Linux Server release 7.1,
Kernel 3.10.0-229.el7.x86_64
 Compiler: C/C++: Version 16.0.0.101 of Intel C++ Studio XE
for Linux;
Fortran: Version 16.0.0.101 of Intel Fortran
Studio XE for Linux
 Auto Parallel: Yes
 File System: xfs
 System State: Run level 3 (multi-user)

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Supermicro

SuperServer 5039D-i
(X11SSL-F , Intel Pentium G4400)

SPECfp2006 = **71.9**

SPECfp_base2006 = **71.4**

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Dec-2015

Hardware Availability: Sep-2015

Software Availability: Sep-2015

L3 Cache: 3 MB I+D on chip per chip
Other Cache: None
Memory: 32 GB (4 x 8 GB 2Rx8 PC4-2133P-U)
Disk Subsystem: 1 x 200 GB SATA III SSD
Other Hardware: None

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

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	98.2	138	97.9	139	98.3	138	98.2	138	97.9	139	98.3	138
416.gamess	460	42.6	459	42.6	460	42.5	445	44.0	444	44.1	445	44.0
433.milc	98.0	93.7	98.1	93.6	98.1	93.6	98.0	93.7	98.1	93.6	98.1	93.6
434.zeusmp	81.5	112	81.6	112	81.6	111	81.5	112	81.6	112	81.6	111
435.gromacs	141	50.7	140	50.9	140	50.9	141	50.7	140	50.9	140	50.9
436.cactusADM	86.5	138	86.7	138	87.0	137	86.5	138	86.7	138	87.0	137
437.leslie3d	118	79.9	117	80.1	117	80.2	118	79.9	117	80.1	117	80.2
444.namd	310	25.9	310	25.9	310	25.8	302	26.5	302	26.6	302	26.6
447.dealII	164	69.7	164	69.7	164	69.7	164	69.7	164	69.7	164	69.7
450.soplex	180	46.2	180	46.4	186	44.7	180	46.2	180	46.4	186	44.7
453.povray	90.8	58.6	90.6	58.7	91.0	58.5	85.3	62.3	83.6	63.6	84.1	63.3
454.calculix	159	51.8	159	51.7	159	51.8	161	51.2	161	51.3	161	51.3
459.GemsFDTD	159	66.8	159	66.5	159	66.6	166	64.0	165	64.4	166	63.8
465.tonto	198	49.7	198	49.7	198	49.7	192	51.3	192	51.1	192	51.2
470.lbm	71.3	193	71.2	193	71.2	193	71.3	193	71.2	193	71.2	193
481.wrf	121	92.5	121	92.6	121	92.4	121	92.5	121	92.6	121	92.4
482.sphinx3	308	63.2	308	63.3	308	63.3	308	63.2	308	63.3	308	63.3

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

Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

Platform Notes

Sysinfo program /usr/cpu2006/config/sysinfo.rev6914
\$Rev: 6914 \$ \$Date:: 2014-06-25 #\$ e3fbb8667b5a285932ceab81e28219e1
running on X11SSL-01 Thu Dec 31 09:18:03 2015

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:
<http://www.spec.org/cpu2006/Docs/config.html#sysinfo>

From /proc/cpuinfo
model name : Intel(R) Pentium(R) CPU G4400 @ 3.30GHz
Continued on next page



SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Supermicro

SuperServer 5039D-i
(X11SSL-F , Intel Pentium G4400)

SPECfp2006 = 71.9

SPECfp_base2006 = 71.4

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Dec-2015

Hardware Availability: Sep-2015

Software Availability: Sep-2015

Platform Notes (Continued)

```

1 "physical id"s (chips)
2 "processors"
cores, siblings (Caution: counting these is hw and system dependent. The
following excerpts from /proc/cpuinfo might not be reliable. Use with
caution.)
  cpu cores : 2
  siblings  : 2
  physical 0: cores 0 1
cache size : 3072 KB

From /proc/meminfo
MemTotal:      32898524 kB
HugePages_Total: 0
Hugepagesize:  2048 kB

From /etc/*release* /etc/*version*
os-release:
NAME="Red Hat Enterprise Linux Server"
VERSION="7.1 (Maipo)"
ID="rhel"
ID_LIKE="fedora"
VERSION_ID="7.1"
PRETTY_NAME="Red Hat Enterprise Linux Server 7.1 (Maipo)"
ANSI_COLOR="0;31"
CPE_NAME="cpe:/o:redhat:enterprise_linux:7.1:GA:server"
redhat-release: Red Hat Enterprise Linux Server release 7.1 (Maipo)
system-release: Red Hat Enterprise Linux Server release 7.1 (Maipo)
system-release-cpe: cpe:/o:redhat:enterprise_linux:7.1:ga:server

uname -a:
Linux X11SSL-01 3.10.0-229.el7.x86_64 #1 SMP Thu Jan 29 18:37:38 EST 2015
x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Dec 31 04:11

SPEC is set to: /usr/cpu2006
Filesystem      Type  Size  Used Avail Use% Mounted on
/dev/sda2       xfs   183G   60G  123G  33% /
Additional information from dmidecode:

Warning: Use caution when you interpret this section. The 'dmidecode' program
reads system data which is "intended to allow hardware to be accurately
determined", but the intent may not be met, as there are frequent changes to
hardware, firmware, and the "DMTF SMBIOS" standard.

BIOS American Megatrends Inc. 1.0a 10/23/2015
Memory:
4x Micron 16ATF1G64AZ-2G1A2 8 GB 2 rank 2133 MHz

(End of data from sysinfo program)

```



SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Supermicro

SuperServer 5039D-i
(X11SSL-F , Intel Pentium G4400)

SPECfp2006 = 71.9

SPECfp_base2006 = 71.4

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Dec-2015

Hardware Availability: Sep-2015

Software Availability: Sep-2015

General Notes

Environment variables set by runspec before the start of the run:

KMP_AFFINITY = "granularity=fine,compact,1,0"

LD_LIBRARY_PATH = "/usr/cpu2006/libs/32:/usr/cpu2006/libs/64:/usr/cpu2006/sh"

OMP_NUM_THREADS = "2"

Binaries compiled on a system with 1x Intel Core i5-4670K CPU + 32GB memory using RedHat EL 7.1

Transparent Huge Pages enabled with:

echo always > /sys/kernel/mm/transparent_hugepage/enabled

Base Compiler Invocation

C benchmarks:

icc -m64

C++ benchmarks:

icpc -m64

Fortran benchmarks:

ifort -m64

Benchmarks using both Fortran and C:

icc -m64 ifort -m64

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



SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Supermicro

SuperServer 5039D-i
(X11SSL-F , Intel Pentium G4400)

SPECfp2006 = 71.9

SPECfp_base2006 = 71.4

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Dec-2015

Hardware Availability: Sep-2015

Software Availability: Sep-2015

Base Optimization Flags

C benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -parallel -opt-prefetch -ansi-alias

C++ benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -ansi-alias

Fortran benchmarks:

-xSSE4.2 -ipo -O3 -no-prec-div -parallel -opt-prefetch

Benchmarks using both Fortran and C:

-xSSE4.2 -ipo -O3 -no-prec-div -parallel -opt-prefetch -ansi-alias

Peak Compiler Invocation

C benchmarks:

icc -m64

C++ benchmarks:

icpc -m64

Fortran benchmarks:

ifort -m64

Benchmarks using both Fortran and C:

icc -m64 ifort -m64

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

433.milc: basepeak = yes

470.lbm: basepeak = yes

482.sphinx3: basepeak = yes

C++ benchmarks:

444.namd: -xSSE4.2(pass 2) -prof-gen:threadsafe(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -par-num-threads=1(pass 1)
-prof-use(pass 2) -fno-alias -auto-ilp32

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Supermicro

SuperServer 5039D-i
(X11SSL-F , Intel Pentium G4400)

SPECfp2006 = 71.9

SPECfp_base2006 = 71.4

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Dec-2015

Hardware Availability: Sep-2015

Software Availability: Sep-2015

Peak Optimization Flags (Continued)

447.dealII: basepeak = yes

450.soplex: basepeak = yes

453.povray: -xSSE4.2(pass 2) -prof-gen:threadsafe(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -par-num-threads=1(pass 1)
-prof-use(pass 2) -unroll4 -ansi-alias

Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: -xSSE4.2(pass 2) -prof-gen:threadsafe(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -par-num-threads=1(pass 1)
-prof-use(pass 2) -unroll2 -inline-level=0 -scalar-rep-

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: -xSSE4.2(pass 2) -prof-gen:threadsafe(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -par-num-threads=1(pass 1)
-prof-use(pass 2) -unroll2 -inline-level=0 -opt-prefetch
-parallel

465.tonto: -xSSE4.2(pass 2) -prof-gen:threadsafe(pass 1) -ipo(pass 2)
-O3(pass 2) -no-prec-div(pass 2) -par-num-threads=1(pass 1)
-prof-use(pass 2) -inline-calloc -opt-malloc-options=3
-auto -unroll4

Benchmarks using both Fortran and C:

435.gromacs: basepeak = yes

436.cactusADM: basepeak = yes

454.calculix: -xSSE4.2 -ipo -O3 -no-prec-div -auto-ilp32 -ansi-alias

481.wrf: basepeak = yes

The flags files that were used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic16.0-official-linux64.html>

<http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revH.html>

You can also download the XML flags sources by saving the following links:

<http://www.spec.org/cpu2006/flags/Intel-ic16.0-official-linux64.xml>

<http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revH.xml>



SPEC CFP2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

Supermicro

SuperServer 5039D-i
(X11SSL-F , Intel Pentium G4400)

SPECfp2006 = 71.9

SPECfp_base2006 = 71.4

CPU2006 license: 001176

Test sponsor: Supermicro

Tested by: Supermicro

Test date: Dec-2015

Hardware Availability: Sep-2015

Software Availability: Sep-2015

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 v1.2.
Report generated on Tue Jan 26 15:11:52 2016 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 26 January 2016.