



SPEC® CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.
(Test Sponsor: Intel Corporation)

SPECfp®2006 = 62.5

ASUS H97M-PLUS Motherboard (Intel Core i3-4370)

SPECfp_base2006 = 61.5

CPU2006 license: 13

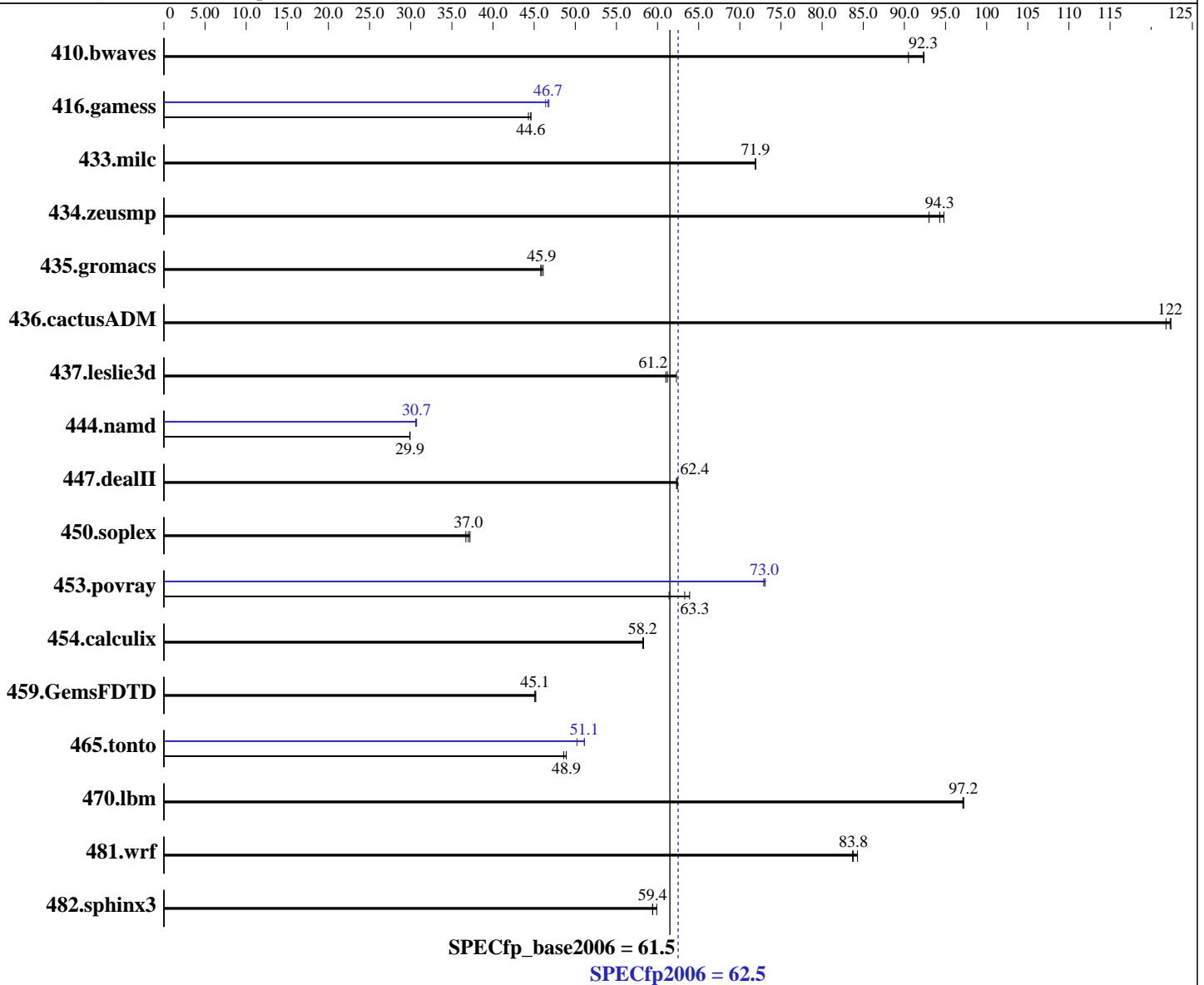
Test date: Dec-2014

Test sponsor: Intel Corporation

Hardware Availability: Jul-2014

Tested by: Intel Corporation

Software Availability: Oct-2013



Hardware

CPU Name: Intel Core i3-4370
 CPU Characteristics:
 CPU MHz: 3800
 FPU: Integrated
 CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip, 2 threads/core
 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: Microsoft Windows 8.1 Pro
 6.3.9600 N/A Build 9600
 Compiler: C/C++: Version 14.0.1.139 of Intel C++ Studio XE for Windows;
 Fortran: Version 14.0.1.139 of Intel Fortran Studio XE for Windows;
 Libraries: Version 16.00.30319.01 of Microsoft Visual Studio 2010 Professional SP1
 Auto Parallel: Yes

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.
(Test Sponsor: Intel Corporation)

SPECfp2006 = **62.5**

ASUS H97M-PLUS Motherboard (Intel Core i3-4370)

SPECfp_base2006 = **61.5**

CPU2006 license: 13

Test date: Dec-2014

Test sponsor: Intel Corporation

Hardware Availability: Jul-2014

Tested by: Intel Corporation

Software Availability: Oct-2013

L3 Cache: 4 MB I+D on chip per chip
Other Cache: None
Memory: 8 GB (2 x 4 GB 2Rx4 PC3-12800U-11)
Disk Subsystem: 1 TB Seagate SATA, 7200RPM
Other Hardware: None

File System: NTFS
System State: Default
Base Pointers: 32/64-bit
Peak Pointers: 32/64-bit
Other Software: SmartHeap Library Version 10.0 from <http://www.microquill.com/>

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
410.bwaves	150	90.5	147	92.3	147	92.4	150	90.5	147	92.3	147	92.4
416.gamess	442	44.3	439	44.6	439	44.6	422	46.4	419	46.7	419	46.8
433.milc	128	71.9	128	71.9	128	71.9	128	71.9	128	71.9	128	71.9
434.zeusmp	96.0	94.8	96.5	94.3	97.8	93.0	96.0	94.8	96.5	94.3	97.8	93.0
435.gromacs	156	45.9	156	45.8	155	46.1	156	45.9	156	45.8	155	46.1
436.cactusADM	97.6	122	98.1	122	97.7	122	97.6	122	98.1	122	97.7	122
437.leslie3d	151	62.3	154	61.0	154	61.2	151	62.3	154	61.0	154	61.2
444.namd	269	29.9	268	29.9	269	29.9	262	30.6	262	30.7	262	30.7
447.dealII	183	62.4	184	62.3	183	62.4	183	62.4	184	62.3	183	62.4
450.soplex	227	36.7	224	37.2	226	37.0	227	36.7	224	37.2	226	37.0
453.povray	84.1	63.3	83.2	63.9	86.6	61.4	73.0	72.9	72.8	73.1	72.9	73.0
454.calculix	142	58.2	142	58.2	141	58.3	142	58.2	142	58.2	141	58.3
459.GemsFDTD	235	45.1	235	45.1	235	45.2	235	45.1	235	45.1	235	45.2
465.tonto	201	48.9	201	48.9	202	48.6	196	50.2	193	51.1	193	51.1
470.lbm	142	97.1	141	97.2	141	97.2	142	97.1	141	97.2	141	97.2
481.wrf	133	84.3	134	83.7	133	83.8	133	84.3	134	83.7	133	83.8
482.sphinx3	326	59.9	328	59.4	328	59.4	326	59.9	328	59.4	328	59.4

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

Compiler Invocation Notes

To compile these binaries, the Intel Compiler 14.0 was set up to generate 64-bit binaries with the command:
"ipsxe-comp-vars.bat intel64 vs2010" (shortcut provided in the Intel(r) Parallel Studio XE 2013 program folder)

Platform Notes

Sysinfo program C:\SPEC14.0\Docs\sysinfo
\$Rev: 6775 \$ \$Date:: 2011-08-16 #\$ \8787f7622badcf24e01c368b1db4377c
running on Clt10C37B4DF2B9 Tue Dec 2 18:45:32 2014

This section contains SUT (System Under Test) info as seen by some common utilities. To remove or add to this section, see:

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.
(Test Sponsor: Intel Corporation)

SPECfp2006 = 62.5

ASUS H97M-PLUS Motherboard (Intel Core i3-4370)

SPECfp_base2006 = 61.5

CPU2006 license: 13

Test date: Dec-2014

Test sponsor: Intel Corporation

Hardware Availability: Jul-2014

Tested by: Intel Corporation

Software Availability: Oct-2013

Platform Notes (Continued)

<http://www.spec.org/cpu2006/Docs/config.html#sysinfo>

Trying 'systeminfo'

```
OS Name       : Microsoft Windows 8.1 Pro
OS Version    : 6.3.9600 N/A Build 9600
System Manufacturer: ASUS
System Model   : All Series
Processor(s)   : 1 Processor(s) Installed.
                [01]: Intel64 Family 6 Model 60 Stepping 3 GenuineIntel ~3800 Mhz
BIOS Version  : American Megatrends Inc. 0317, 4/23/2014
Total Physical Memory: 3,973 MB
```

Trying 'wmic cpu get /value'

```
DeviceID      : CPU0
L2CacheSize   : 512
L3CacheSize   : 4096
MaxClockSpeed : 3800
Name          : Intel(R) Core(TM) i3-4370 CPU @ 3.80GHz
NumberOfCores : 2
NumberOfLogicalProcessors: 4
```

(End of data from sysinfo program)

Component Notes

Tested systems can be used with Shin-G ATX case,
PC Power and Cooling 1200W power supply

General Notes

OMP_NUM_THREADS set to number of processors cores
KMP_AFFINITY set to granularity=fine,scatter
Binaries compiled on a system with 1x Intel Core i7-860 CPU
+ 8GB memory using Windows 7 Enterprise 64-bit

Base Compiler Invocation

C benchmarks:

```
icl -Qvc10 -Qstd=c99
```

C++ benchmarks:

```
icl -Qvc10
```

Fortran benchmarks:

```
ifort
```

Benchmarks using both Fortran and C:

```
icl -Qvc10 -Qstd=c99 ifort
```



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.
(Test Sponsor: Intel Corporation)

SPECfp2006 = 62.5

ASUS H97M-PLUS Motherboard (Intel Core i3-4370)

SPECfp_base2006 = 61.5

CPU2006 license: 13

Test date: Dec-2014

Test sponsor: Intel Corporation

Hardware Availability: Jul-2014

Tested by: Intel Corporation

Software Availability: Oct-2013

Base Portability Flags

```

410.bwaves: -DSPEC_CPU_P64
416.gamess: -DSPEC_CPU_P64
433.milc: -DSPEC_CPU_P64
434.zeusmp: -DSPEC_CPU_P64
435.gromacs: -DSPEC_CPU_P64
436.cactusADM: -DSPEC_CPU_P64 -names:lowercase /assume:underscore
437.leslie3d: -DSPEC_CPU_P64
444.namd: -DSPEC_CPU_P64 /TP
447.dealII: -DSPEC_CPU_P64 -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG
-Qoption,cpp,--ms_incompat_treatment_of_commas_in_macros
450.soplex: -DSPEC_CPU_P64
453.povray: -DSPEC_CPU_P64 -DSPEC_CPU_NEED_INVHYP -DNEED_INVHYP
454.calculix: -DSPEC_CPU_P64 -DSPEC_CPU_NOZMODIFIER -names:lowercase
459.GemsFDTD: -DSPEC_CPU_P64
465.tonto: -DSPEC_CPU_P64
470.lbm: -DSPEC_CPU_P64
481.wrf: -DSPEC_CPU_P64 -DSPEC_CPU_WINDOWS_ICL
482.sphinx3: -DSPEC_CPU_P64

```

Base Optimization Flags

C benchmarks:

```

-QxCORE-AVX2 -Qipo -O3 -Qprec-div- -Qparallel -Qansi-alias
-Qopt-prefetch -Qauto-ilp32 /F1000000000

```

C++ benchmarks:

```

-QxCORE-AVX2 -Qipo -O3 -Qprec-div- -Qparallel -Qansi-alias
-Qopt-prefetch -Qcxx-features -Qauto-ilp32 /F1000000000 shlw64M.lib
-link /FORCE:MULTIPLE

```

Fortran benchmarks:

```

-QxCORE-AVX2 -Qipo -O3 -Qprec-div- -Qparallel -Qansi-alias
-Qopt-prefetch /F1000000000

```

Benchmarks using both Fortran and C:

```

-QxCORE-AVX2 -Qipo -O3 -Qprec-div- -Qparallel -Qansi-alias
-Qopt-prefetch -Qauto-ilp32 /F1000000000

```

Peak Compiler Invocation

C benchmarks:

```

icl -Qvc10 -Qstd=c99

```

C++ benchmarks:

```

icl -Qvc10

```

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.
(Test Sponsor: Intel Corporation)

SPECfp2006 = 62.5

ASUS H97M-PLUS Motherboard (Intel Core i3-4370)

SPECfp_base2006 = 61.5

CPU2006 license: 13

Test date: Dec-2014

Test sponsor: Intel Corporation

Hardware Availability: Jul-2014

Tested by: Intel Corporation

Software Availability: Oct-2013

Peak Compiler Invocation (Continued)

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc10 -Qstd=c99 ifort

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: -QxCORE-AVX2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Oa -Qauto-ilp32 /F1000000000
sh1W64M.lib -link /FORCE:MULTIPLE

447.dealII: basepeak = yes

450.soplex: basepeak = yes

453.povray: -QxCORE-AVX2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qunroll4 -Qansi-alias -Qauto-ilp32
/F1000000000 sh1W64M.lib -link /FORCE:MULTIPLE

Fortran benchmarks:

410.bwaves: basepeak = yes

416.gamess: -QxCORE-AVX2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qunroll2 -Ob0 -Qansi-alias
-Qscalar-rep- /F1000000000

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

ASUSTeK Computer Inc.
(Test Sponsor: Intel Corporation)

SPECfp2006 = 62.5

ASUS H97M-PLUS Motherboard (Intel Core i3-4370)

SPECfp_base2006 = 61.5

CPU2006 license: 13

Test date: Dec-2014

Test sponsor: Intel Corporation

Hardware Availability: Jul-2014

Tested by: Intel Corporation

Software Availability: Oct-2013

Peak Optimization Flags (Continued)

459.GemsFDTD: basepeak = yes

465.tonto: -QxCORE-AVX2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qunroll4 -Qauto -Qinline-calloc
/F1000000000

Benchmarks using both Fortran and C:

435.gromacs: basepeak = yes

436.cactusADM: basepeak = yes

454.calculix: basepeak = yes

481.wrf: basepeak = yes

The flags file that was used to format this result can be browsed at

<http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-windows.html>

You can also download the XML flags source by saving the following link:

<http://www.spec.org/cpu2006/flags/Intel-ic14.0-official-windows.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 v1.2.
Report generated on Tue Dec 30 16:13:05 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 30 December 2014.