



SPEC[®] CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp[®]2006 = 49.2

Intel DQ77MK motherboard (Intel Pentium G2140)

SPECfp_base2006 = 48.0

CPU2006 license: 13

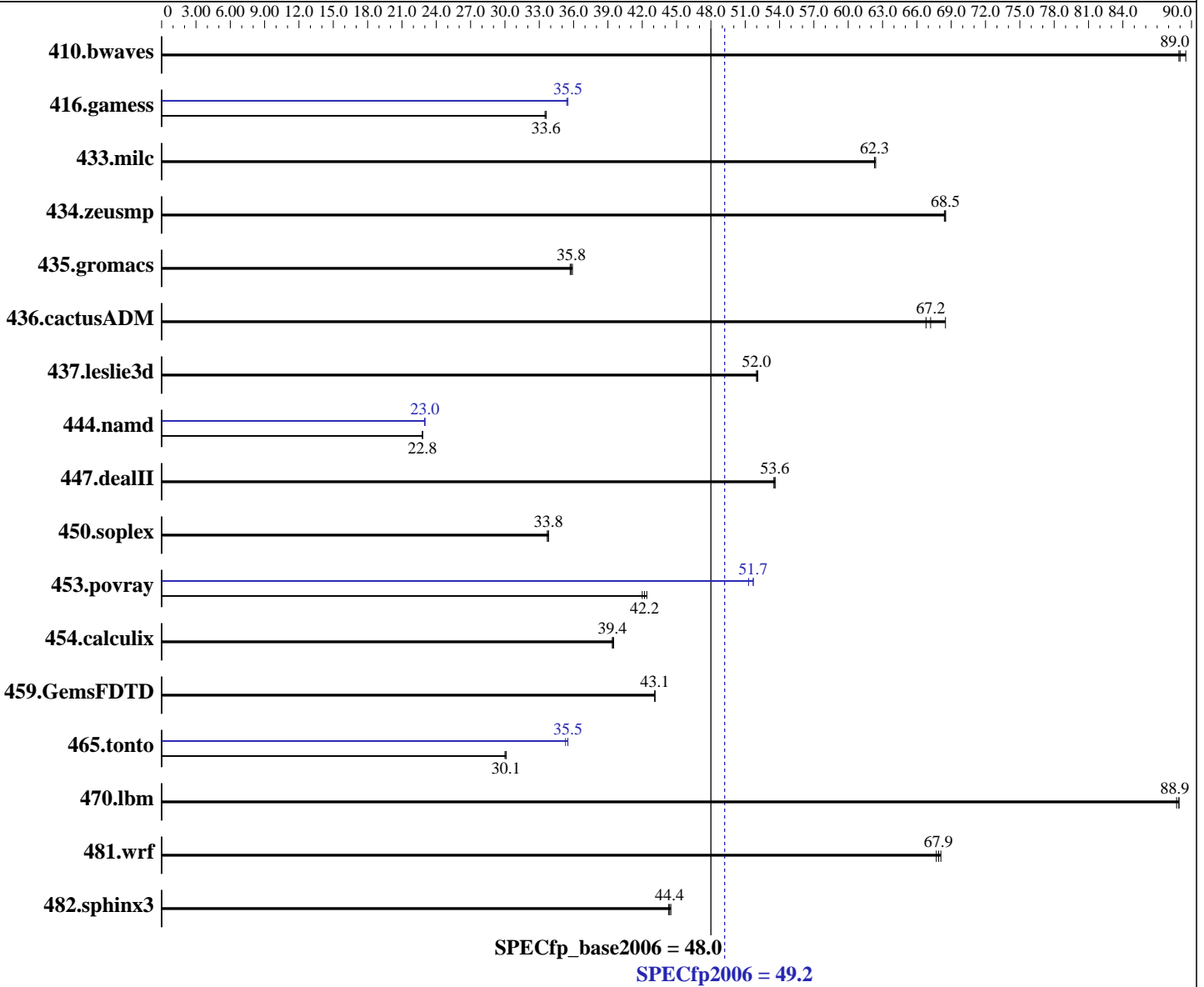
Test date: Nov-2013

Test sponsor: Intel Corporation

Hardware Availability: Jun-2013

Tested by: Intel Corporation

Software Availability: Apr-2013



Hardware

CPU Name: Intel Pentium G2140
 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: Microsoft Windows 7 Enterprise 6.1.7601 Service Pack 1 Build 7601
 Compiler: C/C++: Version 13.1.1.171 of Intel C++ Studio XE for Windows;
 Fortran: Version 13.1.1.171 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

Intel Corporation

SPECfp2006 = **49.2**

Intel DQ77MK motherboard (Intel Pentium G2140)

SPECfp_base2006 = **48.0**

CPU2006 license: 13

Test date: Nov-2013

Test sponsor: Intel Corporation

Hardware Availability: Jun-2013

Tested by: Intel Corporation

Software Availability: Apr-2013

L3 Cache: 3 MB I+D on chip per chip
 Other Cache: None
 Memory: 4 GB (2 x 2 GB 1Rx8 PC3-12800U-11)
 Disk Subsystem: 250 GB Seagate SATA HDD, 7200 RPM
 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	153	89.0	153	88.9	152	89.5	153	89.0	153	88.9	152	89.5
416.gamess	584	33.5	583	33.6	583	33.6	553	35.4	552	35.5	552	35.5
433.milc	147	62.4	147	62.3	147	62.3	147	62.4	147	62.3	147	62.3
434.zeusmp	133	68.5	133	68.4	133	68.5	133	68.5	133	68.4	133	68.5
435.gromacs	200	35.7	199	35.8	199	35.9	200	35.7	199	35.8	199	35.9
436.cactusADM	179	66.8	175	68.5	178	67.2	179	66.8	175	68.5	178	67.2
437.leslie3d	181	52.0	180	52.1	181	52.0	181	52.0	180	52.1	181	52.0
444.namd	352	22.8	352	22.8	352	22.8	348	23.0	348	23.0	348	23.0
447.dealII	214	53.6	214	53.5	213	53.6	214	53.6	214	53.5	213	53.6
450.soplex	247	33.8	247	33.8	247	33.7	247	33.8	247	33.8	247	33.7
453.povray	126	42.4	127	42.0	126	42.2	104	51.3	103	51.7	103	51.7
454.calculix	209	39.5	209	39.4	210	39.4	209	39.5	209	39.4	210	39.4
459.GemsFDTD	246	43.1	246	43.1	246	43.1	246	43.1	246	43.1	246	43.1
465.tonto	328	30.0	327	30.1	327	30.1	279	35.3	277	35.5	278	35.5
470.lbm	155	88.9	155	88.9	155	88.7	155	88.9	155	88.9	155	88.7
481.wrf	165	67.7	164	68.1	165	67.9	165	67.7	164	68.1	165	67.9
482.sphinx3	439	44.4	440	44.3	438	44.5	439	44.4	440	44.3	438	44.5

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 13.1 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:\SPEC13.1\Docs\sysinfo
 \$Rev: 6775 \$ \$Date:: 2011-08-16 #\$ \8787f7622badcf24e01c368b1db4377c
 running on Clt7054D2179849 Fri Nov 22 05:06:49 2013

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

Intel Corporation

SPECfp2006 = 49.2

Intel DQ77MK motherboard (Intel Pentium G2140)

SPECfp_base2006 = 48.0

CPU2006 license: 13

Test date: Nov-2013

Test sponsor: Intel Corporation

Hardware Availability: Jun-2013

Tested by: Intel Corporation

Software Availability: Apr-2013

Platform Notes (Continued)

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

Trying 'systeminfo'

```

OS Name      : Microsoft Windows 7 Enterprise
OS Version   : 6.1.7601 Service Pack 1 Build 7601
System Manufacturer: INTEL_
System Model  : DQ77MK__
Processor(s) : 1 Processor(s) Installed.
               [01]: Intel64 Family 6 Model 58 Stepping 9 GenuineIntel ~3300 Mhz
BIOS Version : Intel Corp. MKQ7710H.86A.0054.2012.1120.1444, 11/20/2012
Total Physical Memory: 3,912 MB

```

Trying 'wmic cpu get /value'

```

DeviceID      : CPU0
L2CacheSize   : 512
L3CacheSize   : 3072
MaxClockSpeed : 3300
Name          : Intel(R) Pentium(R) CPU G2140 @ 3.30GHz
NumberOfCores : 2
NumberOfLogicalProcessors: 2

```

(End of data from sysinfo program)

BIOS: SATA mode set to RAID

Windows Disk Driver: Intel Rapid Storage Technology 12.5.0.1066

Windows Chipset Driver: Intel Chipset Driver 9.4.0.1027

Component Notes

Tested systems can be used with Shin-G ATX case,
PC Power and Cooling 1200W power supply
Micron MT8JTF25664AZ-1G6 Series Memory DIMMs

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
```

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp2006 = 49.2

Intel DQ77MK motherboard (Intel Pentium G2140)

SPECfp_base2006 = 48.0

CPU2006 license: 13

Test date: Nov-2013

Test sponsor: Intel Corporation

Hardware Availability: Jun-2013

Tested by: Intel Corporation

Software Availability: Apr-2013

Base Compiler Invocation (Continued)

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc10 -Qstd=c99 ifort

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:

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qparallel -Qansi-alias
-Qopt-prefetch -Qauto-ilp32 /F1000000000

C++ benchmarks:

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qparallel -Qansi-alias
-Qopt-prefetch -Qcxx-features -Qauto-ilp32 /F1000000000 shlw64M.lib
-link /FORCE:MULTIPLE

Fortran benchmarks:

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qparallel -Qansi-alias
-Qopt-prefetch /F1000000000

Benchmarks using both Fortran and C:

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qparallel -Qansi-alias
-Qopt-prefetch -Qauto-ilp32 /F1000000000



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp2006 = 49.2

Intel DQ77MK motherboard (Intel Pentium G2140)

SPECfp_base2006 = 48.0

CPU2006 license: 13

Test date: Nov-2013

Test sponsor: Intel Corporation

Hardware Availability: Jun-2013

Tested by: Intel Corporation

Software Availability: Apr-2013

Peak 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

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: -QxSSE4.2(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: -QxSSE4.2(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: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div- -Qunroll2 -Ob0 -Qansi-alias
-Qscalar-rep- /F1000000000

Continued on next page



SPEC CFP2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Intel Corporation

SPECfp2006 = 49.2

Intel DQ77MK motherboard (Intel Pentium G2140)

SPECfp_base2006 = 48.0

CPU2006 license: 13

Test date: Nov-2013

Test sponsor: Intel Corporation

Hardware Availability: Jun-2013

Tested by: Intel Corporation

Software Availability: Apr-2013

Peak Optimization Flags (Continued)

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: basepeak = yes

465.tonto: -QxSSE4.2(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-ic13.1-official-windows.html>

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

<http://www.spec.org/cpu2006/flags/Intel-ic13.1-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 Fri Jul 25 00:45:48 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 15 July 2014.