



SPEC® CFP2006 Result

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Intel Corporation

SPECfp®2006 = 49.4

Intel DQ87PG motherboard (Intel Pentium G3430)

SPECfp_base2006 = 48.6

CPU2006 license: 13

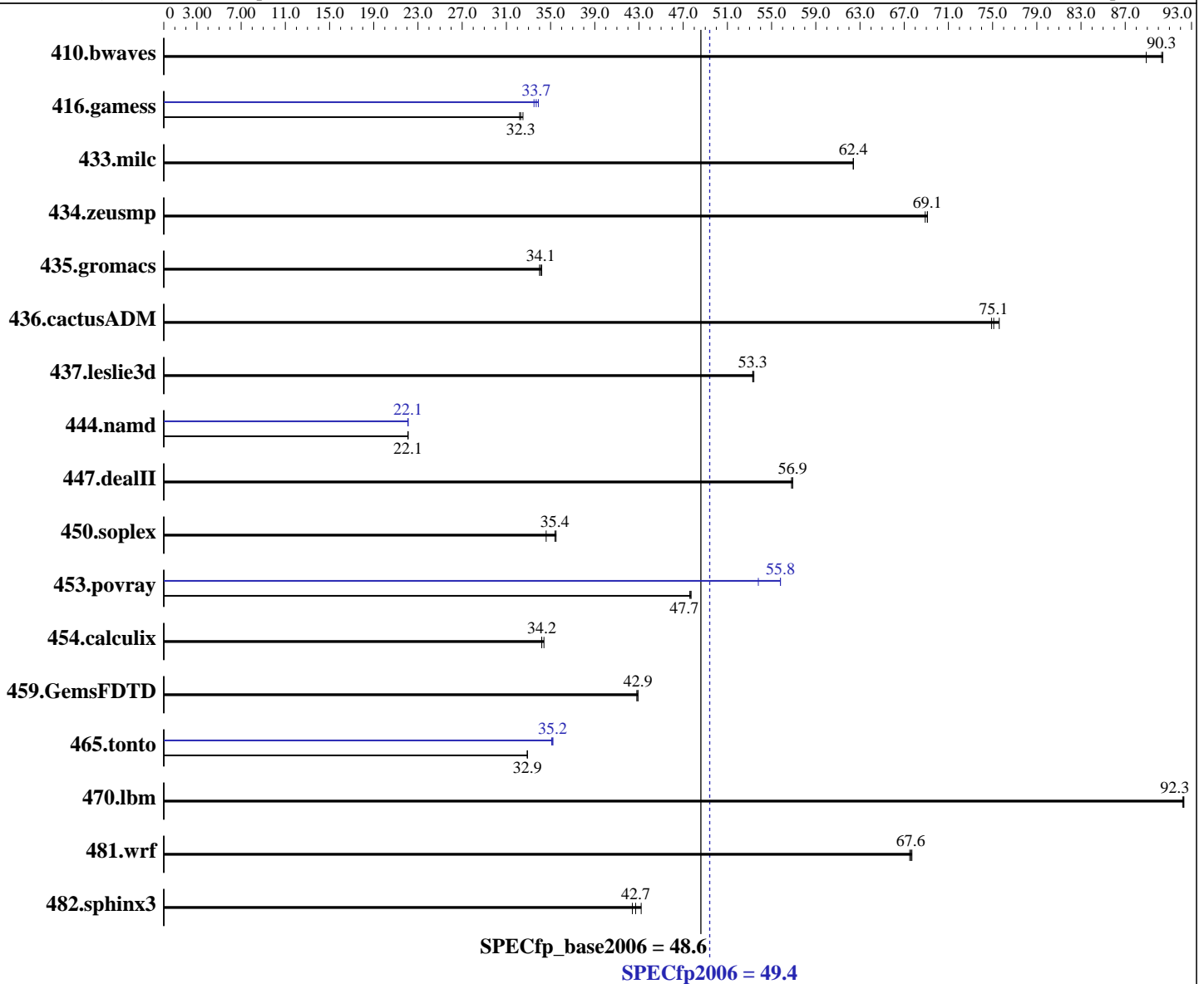
Test date: Sep-2013

Test sponsor: Intel Corporation

Hardware Availability: Sep-2013

Tested by: Intel Corporation

Software Availability: Sep-2012



Hardware

CPU Name: Intel Pentium G3430
 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 15.00.30729.01 of Microsoft Visual Studio 2008 Professional SP1
 Auto Parallel: Yes

Continued on next page



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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	151	90.3	150	90.4	153	88.9	151	90.3	150	90.4	153	88.9
416.gamess	609	32.2	606	32.3	602	32.5	578	33.9	581	33.7	585	33.5
433.milc	147	62.4	147	62.4	147	62.4	147	62.4	147	62.4	147	62.4
434.zeusmp	132	68.9	132	69.1	132	69.1	132	68.9	132	69.1	132	69.1
435.gromacs	209	34.2	210	34.0	209	34.1	209	34.2	210	34.0	209	34.1
436.cactusADM	160	74.9	158	75.6	159	75.1	160	74.9	158	75.6	159	75.1
437.leslie3d	176	53.4	176	53.3	176	53.3	176	53.4	176	53.3	176	53.3
444.namd	363	22.1	364	22.1	364	22.1	364	22.1	363	22.1	364	22.1
447.dealII	201	56.9	201	56.8	201	56.9	201	56.9	201	56.8	201	56.9
450.soplex	236	35.4	235	35.5	241	34.6	236	35.4	235	35.5	241	34.6
453.povray	112	47.6	112	47.7	112	47.7	95.4	55.8	95.4	55.8	98.8	53.8
454.calculix	240	34.4	241	34.2	241	34.2	240	34.4	241	34.2	241	34.2
459.GemsFDTD	248	42.8	247	42.9	247	42.9	248	42.8	247	42.9	247	42.9
465.tonto	299	32.9	299	32.9	299	32.9	280	35.1	280	35.2	280	35.2
470.lbm	149	92.3	149	92.2	149	92.3	149	92.3	149	92.2	149	92.3
481.wrf	165	67.6	165	67.5	165	67.7	165	67.6	165	67.5	165	67.7
482.sphinx3	451	43.2	460	42.4	457	42.7	451	43.2	460	42.4	457	42.7

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 13.0 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:\SPEC13.1\Docs\sysinfo
 \$Rev: 6775 \$ \$Date:: 2011-08-16 #\$ \8787f7622badcf24e01c368b1db4377c
 running on Clt7C05070FB2B7 Mon Sep 23 06:26:20 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



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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 : DQ87PG__

Processor(s) : 1 Processor(s) Installed.

[01]: Intel64 Family 6 Model 60 Stepping 3 GenuineIntel ~3300 Mhz

BIOS Version : Intel(R) Corp. PGQ8710H.86A.0036.2013.0702.1908, 7/2/2013

Total Physical Memory: 3,749 MB

Trying 'wmic cpu get /value'

DeviceID : CPU0

L2CacheSize : 512

L3CacheSize : 3072

MaxClockSpeed : 3300

Name : Intel(R) Pentium(R) CPU G3430 @ 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

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Base Compiler Invocation (Continued)

Fortran benchmarks:

ifort

Benchmarks using both Fortran and C:

icl -Qvc10 -Qstd=c99 ifort

Base Portability Flags

410.bwaves: /Qlowercase

436.cactusADM: -Qlowercase /assume:underscore

444.namd: /TP

447.dealII: -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG

-Qoption,cpp,--ms_incompat_treatment_of_commas_in_macros

453.povray: -DSPEC_CPU_NEED_INVHYP -DNEED_INVHYP

454.calculix: -DSPEC_CPU_NOZMODIFIER -Qlowercase

481.wrf: -DSPEC_CPU_WINDOWS_ICL

Base Optimization Flags

C benchmarks:

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qparallel -Qansi-alias

-Qopt-prefetch /F1000000000

C++ benchmarks:

-QxSSE4.2 -Qipo -O3 -Qprec-div- -Qparallel -Qansi-alias

-Qopt-prefetch -Qcxx-features /F1000000000 shlw32M.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 /F1000000000

Peak Compiler Invocation

C benchmarks:

icl -Qvc10 -Qstd=c99

C++ benchmarks:

icl -Qvc10

Continued on next page

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Page 4



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444.namd: /TP

447.dealII: -DDEAL_II_MEMBER_VAR_SPECIALIZATION_BUG

-Qoption,cpp,--ms_incompat_treatment_of_commas_in_macros

453.povray: -DSPEC_CPU_NEED_INVHYP -DNEED_INVHYP

454.calculix: -DSPEC_CPU_NOZMODIFIER -Qlowercase

481.wrf: -DSPEC_CPU_WINDOWS_ICL

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 /F1000000000 shlw32M.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 /F1000000000

shlw32M.lib -link /FORCE:MULTIPLE

Fortran benchmarks:

410.bwaves: basepeak = yes

Continued on next page

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Page 5



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Peak Optimization Flags (Continued)

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

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>

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For other inquiries, please contact webmaster@spec.org.

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