SPEC® CFP2006 Result

Intel Corporation

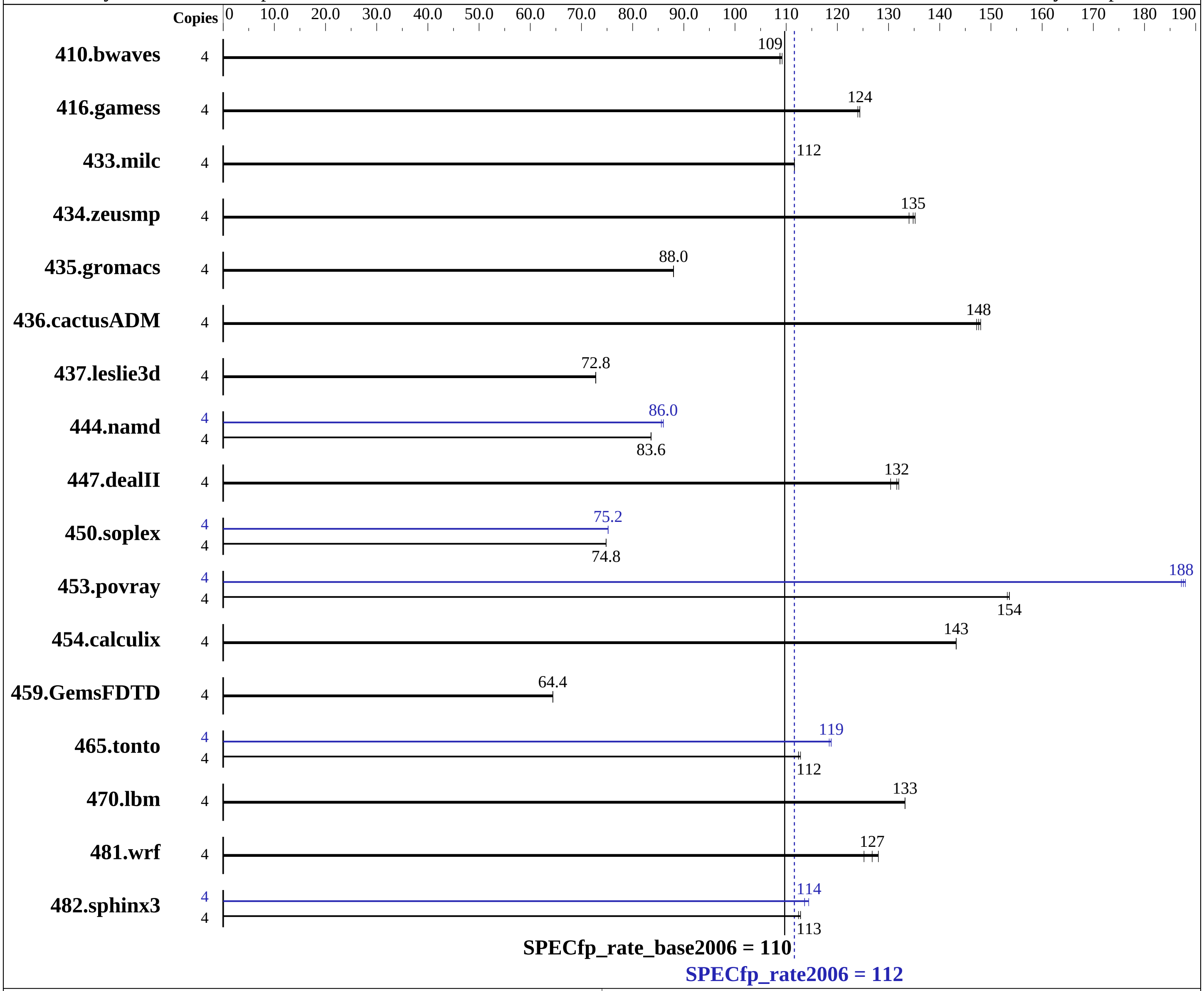
Intel DH77KC Motherboard (Intel Core i5-3330)

SPECfp®_rate2006 = 112

SPECfp_rate_base2006 = 110

CPU2006 license: 13
Test sponsor: Intel Corporation
Tested by: Intel Corporation

Test date: Sep-2012
Hardware Availability: Sep-2012
Software Availability: Apr-2011



Hardware

CPU Name:	Intel Core i5-3330
CPU Characteristics:	Intel Turbo Boost Technology up to 3.2 GHz
CPU MHz:	3000
FPU:	Integrated
CPU(s) enabled:	4 cores, 1 chip, 4 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 Ultimate 6.1.7601 Service Pack 1 Build 7601
Compiler:	C/C++: Version 12.1.0.229 of Intel C++ Studio XE for Windows; Fortran: Version 12.1.0.229 of Intel Fortran Studio XE for Windows; Libraries: Version 15.00.30729.01 of Microsoft Visual Studio 2008 Professional SP1
Auto Parallel:	No

Continued on next page

Intel Corporation

Intel DH77KC Motherboard (Intel Core i5-3330)

SPECfp_rate2006 = 112

SPECfp_rate_base2006 = 110

CPU2006 license: 13
Test sponsor: Intel Corporation
Tested by: Intel Corporation
Test date: Sep-2012
Hardware Availability: Sep-2012
Software Availability: Apr-2011

L3 Cache:	6 MB I+D on chip per chip
Other Cache:	None
Memory:	8 GB (2 x 4 GB 2Rx8 PC3-12800U-9)
Disk Subsystem:	1 TB Seagate SATA, 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 9.01 from http://www.microquill.com/

Results Table

	Base							Peak						
Benchmark	**Copies**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Copies**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
410.bwaves	4	**500**	**109**	498	109	500	109	4	**500**	**109**	498	109	500	109
416.gamess	4	631	124	**630**	**124**	630	124	4	631	124	**630**	**124**	630	124
433.milc	4	**329**	**112**	330	112	329	112	4	**329**	**112**	330	112	329	112
434.zeusmp	4	269	135	**270**	**135**	272	134	4	269	135	**270**	**135**	272	134
435.gromacs	4	325	88.0	**325**	**88.0**	325	88.0	4	325	88.0	**325**	**88.0**	325	88.0
436.cactusADM	4	325	147	323	148	**324**	**148**	4	325	147	323	148	**324**	**148**
437.leslie3d	4	517	72.8	**517**	**72.8**	517	72.8	4	517	72.8	**517**	**72.8**	517	72.8
444.namd	4	**383**	**83.6**	383	83.6	383	83.6	4	374	85.6	374	86.0	**374**	**86.0**
447.dealII	4	347	132	**348**	**132**	350	130	4	347	132	**348**	**132**	350	130
450.soplex	4	446	74.8	**446**	**74.8**	445	74.8	4	444	75.2	445	75.2	**445**	**75.2**
453.povray	4	139	153	139	154	**139**	**154**	4	113	188	**114**	**188**	114	187
454.calculix	4	231	143	**231**	**143**	231	143	4	231	143	**231**	**143**	231	143
459.GemsFDTD	4	660	64.4	**659**	**64.4**	659	64.4	4	660	64.4	**659**	**64.4**	659	64.4
465.tonto	4	351	112	349	113	**350**	**112**	4	333	118	331	119	**332**	**119**
470.lbm	4	**413**	**133**	413	133	413	133	4	**413**	**133**	413	133	413	133
481.wrf	4	**353**	**127**	349	128	357	125	4	**353**	**127**	349	128	357	125
482.sphinx3	4	690	113	693	112	**691**	**113**	4	**686**	**114**	687	114	682	114

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

Compiler Invocation Notes

```
ipsxe-comp-vars batch file invoked with intel64
```

Submit Notes

```
Processes were bound to specific processors using the start command with the /affinity switch.
The config file option 'submit' was used to generate the affinity mask for each process.
```

Platform Notes

```
Sysinfo program C:\CPU200~1.17A/Docs/sysinfo
$Rev: 6775 $ $Date:: 2011-08-16 #$ \8787f7622badcf24e01c368b1db4377c
running on Clt4C72B926747C Thu Sep 20 08:57:46 2012

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

Trying 'systeminfo'
OS Name       : Microsoft Windows 7 Ultimate
OS Version    : 6.1.7601 Service Pack 1 Build 7601
System Manufacturer: INTEL_
System Model  : DH77KC__
Processor(s)  : 1 Processor(s) Installed.
     [01]: Intel64 Family 6 Model 58 Stepping 8 GenuineIntel ~3001 Mhz
BIOS Version  : Intel Corp. KCH7710H.86A.0095.2012.0608.1754, 6/8/2012
Total Physical Memory: 8,092 MB

Trying 'wmic cpu get /value'
DeviceID      : CPU0
L2CacheSize   : 1024
L3CacheSize   : 6144
MaxClockSpeed : 3001
Name          : Intel(R) Core(TM) i5-3330 CPU @ 3.00GHz
NumberOfCores : 4
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

```
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 -Qvc9 -Qstd=c99
```

C++ benchmarks:
```
icl -Qvc9
```

Continued on next page

Base Compiler Invocation (Continued)

Fortran benchmarks:
    ifort

Benchmarks using both Fortran and C:
    icl -Qvc9 -Qstd=c99 ifort

Base Portability Flags

410.bwaves: -DSPEC_CPU_P64 -names:lowercase
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
450.soplex: -DSPEC_CPU_P64
453.povray: -DSPEC_CPU_P64 -DSPEC_CPU_WINDOWS_ICL
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:
    -QxAVX -Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch
    -Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE

C++ benchmarks:
    -QxAVX -Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch
    -Qcxx-features -Qauto-ilp32 /F1000000000 shlW64M.lib
    -link /FORCE:MULTIPLE

Fortran benchmarks:
    -QxAVX -Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch
    /F1000000000 -link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:
    -QxAVX -Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch
    -Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE

Peak Compiler Invocation

C benchmarks:
`icl -Qvc9 -Qstd=c99`

C++ benchmarks:
`icl -Qvc9`

Fortran benchmarks:
`ifort`

Benchmarks using both Fortran and C:
`icl -Qvc9 -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: -QxAVX -Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias -Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE

C++ benchmarks:

444.namd: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Oa -Qauto-ilp32 /F1000000000 shlW64M.lib -link /FORCE:MULTIPLE

447.dealII: basepeak = yes

450.soplex: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qauto-ilp32 /F1000000000 shlW64M.lib -link /FORCE:MULTIPLE

453.povray: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qauto-ilp32 /F1000000000 shlW64M.lib -link /FORCE:MULTIPLE

Fortran benchmarks:

Continued on next page

Peak Optimization Flags (Continued)

410.bwaves: basepeak = yes

416.gamess: basepeak = yes

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: basepeak = yes

465.tonto: -QxAVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qunroll4 -Qauto /F1000000000 -link /FORCE:MULTIPLE

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-ic12.1-official-windows.20120117.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-windows.20120117.xml

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 Thu Jul 24 13:16:14 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 6 November 2012.