**Intel Corporation**

Intel DH61WW motherboard (Intel Pentium G630)

<table>
<thead>
<tr>
<th>Hardware</th>
<th>Software</th>
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</thead>
<tbody>
<tr>
<td>CPU Name: Intel Pentium G630</td>
<td>Operating System: Microsoft Windows 7 Ultimate 6.1.7601 Service Pack 1 Build 7601</td>
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<tr>
<td>CPU MHz: 2700</td>
<td>Auto Parallel: No</td>
</tr>
<tr>
<td>FPU: Integrated</td>
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<tr>
<td>CPU(s) enabled: 2 cores, 1 chip, 2 cores/chip</td>
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<tr>
<td>CPU(s) orderable: 1 chip</td>
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<tr>
<td>Primary Cache: 32 KB I + 32 KB D on chip per core</td>
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<tr>
<td>Secondary Cache: 256 KB I+D on chip per core</td>
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**SPECfp_rate2006 = 53.3**

**SPECfp_rate_base2006 = 52.5**

Test date: Dec-2011

Hardware Availability: Sep-2011

Software Availability: Sep-2011

**Copies**

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</table>
SPEC CFP2006 Result

Intel Corporation

Intel DH61WW motherboard (Intel Pentium G630)

SPECfp_rate2006 = 53.3
SPECfp_rate_base2006 = 52.5

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

Test date: Dec-2011
Hardware Availability: Sep-2011
Software Availability: Sep-2011

L3 Cache: 3 MB I+D on chip per chip
Other Cache: None
Memory: 4 GB (2 x 2 GB 2Rx8 PC3-10600U-9, running at 1066 MHz and CL7)
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

Benchmark | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Copies | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio | Seconds | Ratio
410.bwaves | 2 | 387 | 70.2 | 406 | 67.0 | 407 | 66.8 | 2 | 387 | 70.2 | 406 | 67.0 | 407 | 66.8
416.gamess | 2 | 746 | 52.6 | 746 | 52.6 | 745 | 52.6 | 2 | 746 | 52.6 | 746 | 52.6 | 745 | 52.6
433.milc | 2 | 262 | 70.2 | 261 | 70.2 | 261 | 70.2 | 2 | 262 | 70.2 | 261 | 70.2 | 261 | 70.2
434.zeusmp | 2 | 322 | 56.4 | 323 | 56.4 | 322 | 56.6 | 2 | 322 | 56.4 | 323 | 56.4 | 322 | 56.6
435.gromacs | 2 | 341 | 41.8 | 341 | 41.8 | 341 | 41.8 | 2 | 341 | 41.8 | 341 | 41.8 | 341 | 41.8
436.cactusADM | 2 | 451 | 53.0 | 457 | 52.2 | 457 | 52.4 | 2 | 451 | 53.0 | 457 | 52.2 | 457 | 52.4
437.leslie3d | 2 | 448 | 42.0 | 449 | 42.0 | 448 | 42.0 | 2 | 448 | 42.0 | 449 | 42.0 | 448 | 42.0
444.namd | 2 | 445 | 36.0 | 445 | 36.0 | 445 | 36.0 | 2 | 437 | 36.6 | 437 | 36.6 | 437 | 36.6
447.dealII | 2 | 420 | 54.6 | 422 | 54.2 | 421 | 54.4 | 2 | 420 | 54.6 | 422 | 54.2 | 421 | 54.4
450.soplex | 2 | 396 | 42.2 | 396 | 42.2 | 396 | 42.2 | 2 | 401 | 41.6 | 400 | 41.8 | 400 | 41.8
453.povray | 2 | 162 | 65.6 | 162 | 65.6 | 162 | 65.6 | 2 | 132 | 80.8 | 132 | 80.8 | 132 | 80.8
454.calculix | 2 | 276 | 59.8 | 276 | 59.8 | 276 | 59.8 | 2 | 276 | 59.8 | 276 | 59.8 | 276 | 59.8
459.GemsFDTD | 2 | 546 | 38.8 | 546 | 38.8 | 546 | 38.8 | 2 | 546 | 38.8 | 546 | 38.8 | 546 | 38.8
465.tonto | 2 | 434 | 45.4 | 434 | 45.2 | 434 | 45.2 | 2 | 420 | 46.8 | 419 | 47.0 | 419 | 47.0
470.lbm | 2 | 399 | 69.0 | 399 | 69.0 | 399 | 69.0 | 2 | 399 | 69.0 | 399 | 69.0 | 399 | 69.0
481.wrf | 2 | 336 | 66.6 | 336 | 66.6 | 336 | 66.6 | 2 | 336 | 66.6 | 336 | 66.6 | 336 | 66.6
482.sphinx3 | 2 | 745 | 52.4 | 744 | 52.4 | 744 | 52.4 | 2 | 748 | 52.2 | 748 | 52.2 | 748 | 52.2

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.
Intel Corporation

Intel DH61WW motherboard (Intel Pentium G630)

**SPECfp_rate2006 = 53.3**

**SPECfp_rate_base2006 = 52.5**

<table>
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<th>Test date: Dec-2011</th>
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<tr>
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<td>Hardware Availability: Sep-2011</td>
</tr>
<tr>
<td>Tested by: Intel Corporation</td>
<td>Software Availability: Sep-2011</td>
</tr>
</tbody>
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### Platform Notes

Sysinfo program C:\SPEC12.1/Docs/sysinfo
$Rev: 6775 $ $Date:: 2011-08-16 #$ \8787f7622badcf24e01c368b1db4377c
running on CltE06995A30CB5 Fri Dec 30 02:09:02 2011

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 : DH61WW__
Processor(s) : 1 Processor(s) Installed.
[01]: Intel64 Family 6 Model 42 Stepping 7 GenuineIntel ~2700 Mhz
Total Physical Memory: 4,004 MB

Trying 'wmic cpu get /value'
DeviceID : CPU0
L2CacheSize : 512
L3CacheSize : 3072
MaxClockSpeed : 2700
Name : Intel(R) Pentium(R) CPU G630 @ 2.70GHz
NumberOfCores : 2
NumberOfLogicalProcessors: 2

(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
Intel Corporation

Intel DH61WW motherboard (Intel Pentium G630)

| SPECfp\_rate2006 | 53.3 |
| SPECfp\_rate\_base2006 | 52.5 |

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

Test date: Dec-2011
Hardware Availability: Sep-2011
Software Availability: Sep-2011

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.games: -DSPEC\_CPU\_P64
433.milc: -DSPEC\_CPU\_P64
434.eusmp: -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:
-QxSSE4.2 -Qipo -03 -Qprec-div- -Qansi-alias -Qopt-prefetch
-Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE

C++ benchmarks:
-QxSSE4.2 -Qipo -03 -Qprec-div- -Qansi-alias -Qopt-prefetch
-Qcxx-features -Qauto-ilp32 /F1000000000 shlW64M.lib
-link /FORCE:MULTIPLE

Fortran benchmarks:
-QxSSE4.2 -Qipo -03 -Qprec-div- -Qansi-alias -Qopt-prefetch
/F1000000000 -link /FORCE:MULTIPLE

Benchmarks using both Fortran and C:
-QxSSE4.2 -Qipo -03 -Qprec-div- -Qansi-alias -Qopt-prefetch
-Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE
Intel Corporation
Intel DH61WW motherboard (Intel Pentium G630) SPECfp_rate2006 = 53.3
SPECfp_rate_base2006 = 52.5

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

Test date: Dec-2011
Hardware Availability: Sep-2011
Software Availability: Sep-2011

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: -QxSSE4.2 -Qipo -O3 -Qprec-div -Qunroll12 -Qansi-alias
               -Qauto-ilp32 /F1000000000 -link /FORCE:MULTIPLE

C++ benchmarks:
  444.namd: -QxSSE4.2(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: -QxSSE4.2(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
              -Qipo -O3 -Qauto-ilp32 /F1000000000 shlW64M.lib
              -link /FORCE:MULTIPLE
  453.povray: -QxSSE4.2(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
Intel Corporation

Intel DH61WW motherboard (Intel Pentium G630)

SPECfp_rate2006 = 53.3
SPECfp_rate_base2006 = 52.5

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

Test date: Dec-2011
Hardware Availability: Sep-2011
Software Availability: Sep-2011

Peak Optimization Flags (Continued)

410. bwaves: basepeak = yes
416. game: basepeak = yes
434. zem: basepeak = yes
437. leslie: 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 /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

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

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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.2.
Originally published on 17 January 2012.