### SPEC® CFP2006 Result

**ASUSTeK Computer Inc.**  
(Test Sponsor: Intel Corporation)  
ASUS A88X-PRO Motherboard (AMD A6 PRO-7400B with Radeon R5 Graphics)

**SPECfp®2006** = 30.0  
**SPECfp_base2006** = 29.4

**CPU2006 license:** 13  
**Test date:** May-2016  
**Test sponsor:** Intel Corporation  
**Hardware Availability:** Jul-2014  
**Tested by:** Intel Corporation  
**Software Availability:** Aug-2015

<table>
<thead>
<tr>
<th>Benchmark</th>
<th>SPECfp2006</th>
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<td>410.bwaves</td>
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<td>482.sphinx3</td>
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</tbody>
</table>

**Hardware**

- **CPU Name:** AMD A6 PRO-7400B  
- **CPU Characteristics:** AMD Turbo CORE technology up to 3.90 GHz  
- **CPU MHz:** 3500  
- **FPU:** Integrated  
- **CPU(s) enabled:** 2 cores, 1 chip, 2 cores/chip  
- **CPU(s) orderable:** 1 chip  
- **Primary Cache:** 96 KB I on chip per chip; 16 KB D on chip per core  
- **Secondary Cache:** 1 MB I+D on chip per chip

**Software**

- **Operating System:** Microsoft Windows 7 Ultimate  
- **Compiler:** C/C++: Version 16.0.0.110 of Intel C++ Studio XE for Windows; Fortran: Version 16.0.0.110 of Intel Fortran Studio XE for Windows; Libraries: Version 18.00.30723 of Microsoft Visual Studio 2013  
- **Auto Parallel:** Yes

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SPECfp_base2006 = 29.4

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L3 Cache: None
Other Cache: None
Memory: 8 GB (2 x 4 GB 2Rx8 PC3-10600U-11)
Disk Subsystem: Seagate Barracuda 250 GB 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 11.0 from http://www.microquill.com/

Results Table

<table>
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</tr>
</tbody>
</table>

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 16.0 was set up to generate 64-bit binaries with the command:
"psxevars.bat intel64" (shortcut provided in the Intel(r)
Parallel Studio XE 2016 program folder)

Platform Notes

Sysinfo program C:\SPEC16.0\Docs/sysinfo
$Rev: 6775 $ $Date:: 2011-08-16 #9 \8787f7622badcf24e01c368b1db4377c
running on Clt1C872C5DF572 Sat May 14 10:02:07 2016

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

Platform Notes (Continued)

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: System manufacturer  
System Model  : System Product Name  
Processor(s)  : 1 Processor(s) Installed.  
               [01]: AMD64 Family 21 Model 48 Stepping 1 AuthenticAMD ~3500 Mhz  
BIOS Version  : American Megatrends Inc. 2502, 12/11/2015  
Total Physical Memory: 7,108 MB

Trying 'wmic cpu get /value'  
DeviceID      : CPU0  
L2CacheSize   : 25359  
L3CacheSize   : 0  
MaxClockSpeed : 3500  
Name          : AMD A6 PRO-7400B R5, 6 Compute Cores 2C+4G  
NumberOfCores : 1  
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

450.soplex (base): "getline_test" src.alt was used.  
447.dealII (base): "max_prototype" src.alt was used.  
447.dealII (base): "cxx11_make_pair" src.alt was used.  
450.soplex (base): "getline_test" src.alt was used.  
447.dealII (base): "max_prototype" src.alt was used.  
447.dealII (base): "cxx11_make_pair" src.alt was used.  

OMP_NUM_THREADS set to number of processors cores  
KMP_AFFINITY set to granularity=fine,scatter  
Binaries compiled on a system with 1x Intel Xeon E5-2699 v3 CPU  
+ 64GB memory using Windows 8.1 Enterprise 64-bit
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Base Compiler Invocation

C benchmarks:  
  icl -Qvc12 -Qstd=c99

C++ benchmarks:  
  icl -Qvc12

Fortran benchmarks:  
  ifort

Benchmarks using both Fortran and C:  
  icl -Qvc12 -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 -DSPEC_CPU_BOOST_CONFIG_MSC_VER -DSPEC_NEED_ALGORITHM  
450.soplex: -DSPEC_CPU_P64 -DSPEC_GETLINE_TEST  
453.povray: -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:  
  /arch:AVX -Qipo -O3 -Qprec-div -Qparallel -Qansi-alias -Qopt-prefetch /F1000000000

C++ benchmarks:  
  /arch:AVX -Qipo -O3 -Qprec-div -Qparallel -Qansi-alias -Qopt-prefetch -Qcxx-features /F1000000000 shlW64M.lib -link /FORCE:MULTIPLE

Fortran benchmarks:  
  /arch:AVX -Qipo -O3 -Qprec-div -Qparallel -Qansi-alias -Qopt-prefetch /F1000000000

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Base Optimization Flags (Continued)  

Benchmarks using both Fortran and C:  
/arch:AVX -Qipo -O3 -Qprec-div -Qparallel -Qansi-alias  
-Qopt-prefetch /F1000000000  

Peak Compiler Invocation  

C benchmarks:  
icl -Qvc12 -Qstd=c99  

C++ benchmarks:  
icl -Qvc12  

Fortran benchmarks:  
ifort  

Benchmarks using both Fortran and C:  
icl -Qvc12 -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: /arch:AVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)  
-Qipo -O3 -Qprec-div -Oa /F1000000000 shlW64M.lib  
-link /FORCE:MULTIPLE  
447.dealII: basepeak = yes  
450.soplex: basepeak = yes  

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</table>

**Peak Optimization Flags (Continued)**

453.povray: /arch:AVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)  
-Qipo -O3 -Qprec-div -Qunroll14 -Qansi-alias /F1000000000  
shlw64M.lib -link /FORCE:MULTIPLE  

Fortran benchmarks:

410.bwaves: basepeak = yes

416.games: /arch:AVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)  
-Qipo -O3 -Qprec-div -Qunroll14 -Qansi-alias  
-Qscalar-rep -F1000000000  

434.zeusmp: basepeak = yes

437.leslie3d: basepeak = yes

459.GemsFDTD: basepeak = yes

465.tonto: /arch:AVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)  
-Qipo -O3 -Qprec-div -Qunroll14 -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  

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

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

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