ASUSTeK Computer Inc.
(Test Sponsor: Intel Corporation)
ASUS A88X-PRO Motherboard (AMD A4-7300 with Radeon HD Graphics)

**SPECint®2006 = 28.3**
**SPECint_base2006 = 27.4**

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</tbody>
</table>

**Hardware**

- **CPU Name:** AMD A4-7300
- **CPU Characteristics:** AMD Turbo CORE technology up to 4.00 GHz
- **CPU MHz:** 3800
- **FPU:** Integrated
- **CPU(s) enabled:** 2 cores, 1 chip, 2 cores/chip
- **CPU(s) orderable:** 1 chip
- **Primary Cache:** 64 KB I on chip per chip; 16 KB D on chip per core
- **Secondary Cache:** 1 MB I+D on chip per chip
- **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

**Software**

- **Operating System:** Microsoft Windows 7 Enterprise 6.1.7601 Service Pack 1 Build 7601
- **Compiler:** C/C++: Version 16.0.0.110 of Intel C++ Studio XE for Windows; Libraries: Version 18.00.30723 of Microsoft Visual Studio 2013
- **Auto Parallel:** Yes
- **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/
ASUSTeK Computer Inc.  
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ASUS A88X-PRO Motherboard (AMD A4-7300 with 
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SPECint2006 = 28.3  
SPECint_base2006 = 27.4  

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

Results Table

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</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 $ \\8787f7622badcf24e01c368b1db4377c
running on CltE03F49ACBFDE Tue Mar 22 11:48:18 2016

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 Enterprise
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 19 Stepping 1 AuthenticAMD ~3800 Mhz
BIOS Version  : American Megatrends Inc. 2502, 12/11/2015
Total Physical Memory: 7,364 MB

Trying 'wmic cpu get /value'
DeviceID     : CPU0

Continued on next page
ASUSTeK Computer Inc. (Test Sponsor: Intel Corporation)
ASUS A88X-PRO Motherboard (AMD A4-7300 with Radeon HD Graphics)

**SPECint2006 = 28.3**
**SPECint_base2006 = 27.4**

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<td>Test sponsor: Intel Corporation</td>
<td>Hardware Availability: Jul-2014</td>
</tr>
<tr>
<td>Tested by: Intel Corporation</td>
<td>Software Availability: Aug-2015</td>
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</tbody>
</table>

### Platform Notes (Continued)

```
L2CacheSize   : 24847
L3CacheSize   : 0
MaxClockSpeed : 3800
Name          : AMD A4-7300 APU with Radeon HD Graphics
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

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

### Base Compiler Invocation

- **C benchmarks:**
  - icl -Qvc12 -Qstd=c99

- **C++ benchmarks:**
  - icl -Qvc12

### Base Portability Flags

```
400.perlbench: -DSPEC_CPU_P64 -DSPEC_CPU_WIN64_X64
401.bzip2: -DSPEC_CPU_P64
403.gcc: -DSPEC_CPU_P64 -DSPEC_CPU_WIN64
429.mcf: -DSPEC_CPU_P64
445.gobmk: -DSPEC_CPU_P64
456.hmmer: -DSPEC_CPU_P64
458.sjeng: -DSPEC_CPU_P64
462.libquantum: -DSPEC_CPU_P64
464.h264ref: -DSPEC_CPU_P64 -DWIN32
471.omnetpp: -DSPEC_CPU_P64 -DSPEC_CPU_WIN64
473.astar: -DSPEC_CPU_P64
483.xalancbmk: -DSPEC_CPU_P64 -Qoption,cpp,--no_wchar_t_keyword -DWIN64
```
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**SPECint2006 =  28.3**  
**SPECint_base2006 =  27.4**

### Base Optimization Flags

**C benchmarks:**

```
/arch:AVX -Qipo -O3 -Qprec-div -Qopt-prefetch -Qparallel
-Qauto-ilp32 /F64000000
```

**C++ benchmarks:**

```
/arch:AVX -Qipo -O3 -Qprec-div -Qopt-prefetch -Qcxx-features
-Qauto-ilp32 /F64000000 shlW64M.lib -link /FORCE:MULTIPLE
```

### Base Other Flags

**C benchmarks:**

```
403.gcc: -Dalloca=_alloca
```

### Peak Compiler Invocation

**C benchmarks:**

```
icl -Qvc12 -Qstd=c99
```

**C++ benchmarks:**

```
icl -Qvc12
```

### Peak Portability Flags

_Same as Base Portability Flags_

### Peak Optimization Flags

**C benchmarks:**

```
400.perlbench: /arch:AVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div -Qansi-alias -Qopt-prefetch
-Qauto-ilp32 /F64000000 shlW64M.lib
/F256000000 -link /FORCE:MULTIPLE
```

```
401.bzip2: /arch:AVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div -Qopt-prefetch -Qansi-alias
-Qauto-ilp32 /F64000000
```

```
403.gcc: /arch:AVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div -Qauto-ilp32 /F64000000
```

Continued on next page
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SPECint2006 = 28.3
SPECint_base2006 = 27.4

Peak Optimization Flags (Continued)

429.mcf: basepeak = yes

445.gobmk: /arch:AVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O2 -Qprec-div -Qansi-alias -Qauto-ilp32
/F64000000

456.hmmer: basepeak = yes

458.sjeng: basepeak = yes

462.libquantum: basepeak = yes

464.h264ref: basepeak = yes

C++ benchmarks:

471.omnetpp: /arch:AVX(pass 2) -Qprof_gen(pass 1) -Qprof_use(pass 2)
-Qipo -O3 -Qprec-div -Qansi-alias
-Opt-ra-region-strategy=block -Qauto-ilp32 /F64000000
shlw64M.lib -link /FORCE:MULTIPLE

473.astar: basepeak = yes

483.xalancbmk: basepeak = yes

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

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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<tr>
<th>SPEC CINT2006 Result</th>
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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.
Report generated on Tue Sep 20 15:06:24 2016 by SPEC CPU2006 PS/PDF formatter v6932.
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