SPEC® CINT2006 Result

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Dell Inc.

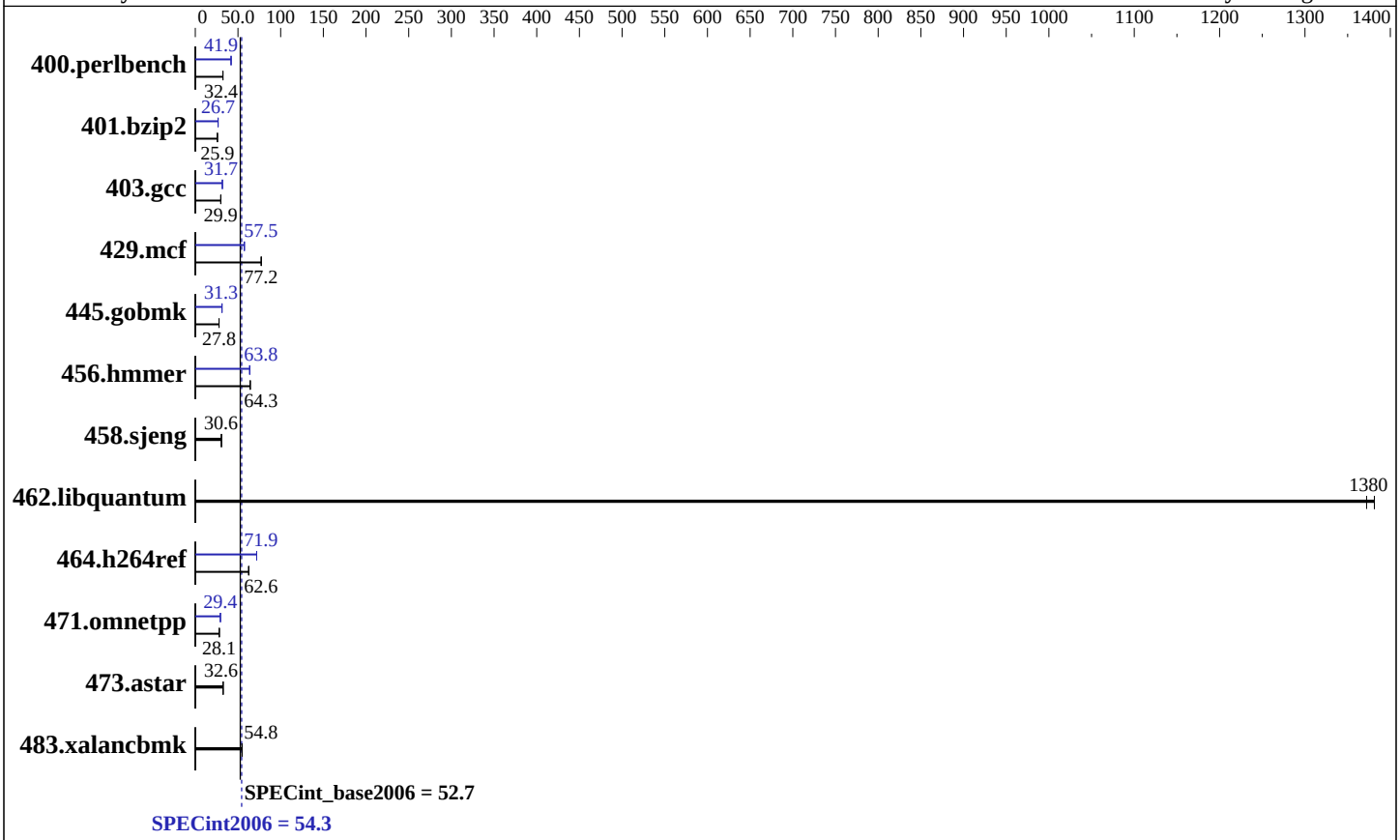
Dell Precision T3610 (Intel Xeon E5-1650 v2, 3.50 GHz)

SPECint®2006 = 54.3

SPECint_base2006 = 52.7

CPU2006 license: 55
Test sponsor: Dell Inc.
Tested by: Dell Inc.

Test date: Nov-2013
Hardware Availability: Sep-2013
Software Availability: Aug-2011



Hardware

CPU Name:	Intel Xeon E5-1650 v2
CPU Characteristics:	Intel Turbo Boost Technology up to 3.90 GHz
CPU MHz:	3500
FPU:	Integrated
CPU(s) enabled:	6 cores, 1 chip, 6 cores/chip, 2 threads/core
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
L3 Cache:	12 MB I+D on chip per chip
Other Cache:	None
Memory:	32 GB (8 x 4 GB 1Rx8 PC3-14900R-13, ECC)
Disk Subsystem:	1 x 500 GB SATA III 7200 RPM
Other Hardware:	None

Software

Operating System:	Windows 7 Professional (64-bit) SP1
Compiler:	C/C++: Version 12.1.0.233 of Intel C++ Studio XE for Windows C/C++: Version 2010 of Microsoft Visual Studio
Auto Parallel:	Yes
File System:	NTFS
System State:	Default
Base Pointers:	32/64-bit
Peak Pointers:	32/64-bit
Other Software:	MicroQuill SmartHeap Library 10.0

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Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	302	32.4	303	32.3	**302**	**32.4**	233	41.9	233	42.0	**233**	**41.9**
401.bzip2	372	25.9	**372**	**25.9**	372	25.9	362	26.7	**361**	**26.7**	361	26.7
403.gcc	**269**	**29.9**	269	29.9	269	29.9	254	31.7	254	31.7	**254**	**31.7**
429.mcf	118	77.2	**118**	**77.2**	118	77.4	159	57.5	159	57.4	**159**	**57.5**
445.gobmk	377	27.8	**377**	**27.8**	377	27.8	336	31.3	336	31.2	**336**	**31.3**
456.hmmer	145	64.2	145	64.5	**145**	**64.3**	146	63.9	**146**	**63.8**	147	63.6
458.sjeng	396	30.6	**396**	**30.6**	396	30.6	396	30.6	**396**	**30.6**	396	30.6
462.libquantum	15.0	1380	15.1	1370	**15.0**	**1380**	15.0	1380	15.1	1370	**15.0**	**1380**
464.h264ref	353	62.7	354	62.5	**353**	**62.6**	308	71.9	308	71.9	**308**	**71.9**
471.omnetpp	223	28.1	**223**	**28.1**	222	28.1	**213**	**29.4**	213	29.4	213	29.4
473.astar	215	32.6	215	32.6	**215**	**32.6**	215	32.6	215	32.6	**215**	**32.6**
483.xalancbmk	126	54.8	126	54.7	**126**	**54.8**	126	54.8	126	54.7	**126**	**54.8**

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

Operating System Notes

```
OMP_NUM_THREADS=6 (number of cores)
Set power configuration to High Performance and disabled monitor blanking and sleep timer
KMP_AFFINITY=granularity=fine,scatter
```

Platform Notes

```
Sysinfo program c:\cpu2006.v1.2/Docs/sysinfo
$Rev: 6775 $ $Date:: 2011-08-16 #$ \8787f7622badcf24e01c368b1db4377c
running on T3610-GLDN-PC Tue Nov 19 14:52:42 2013

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 Professional
OS Version    : 6.1.7601 Service Pack 1 Build 7601
System Manufacturer: Dell Inc.
System Model  : Precision T3610
Processor(s)  : 1 Processor(s) Installed.
     [01]: Intel64 Family 6 Model 62 Stepping 4 GenuineIntel ~3501 Mhz
BIOS Version  : Dell Inc. A03, 9/5/2013
Total Physical Memory: 32,712 MB

Trying 'wmic cpu get /value'
DeviceID      : CPU0
L2CacheSize   : 1536
```

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Platform Notes (Continued)

```
    L3CacheSize   : 12288
    MaxClockSpeed : 3501
    Name          : Intel(R) Xeon(R) CPU E5-1650 v2 @ 3.50GHz
    NumberOfCores : 6
    NumberOfLogicalProcessors: 12

    (End of data from sysinfo program)
```

General Notes

```
Binaries were compiled on a Precision T1600 system with a single Xeon E3-1200 CPU and 16GB memory using Windows 7 Professional 64-bit
```

Base Compiler Invocation

C benchmarks:
```
icl -Qvc10 -Qstd=c99
```

C++ benchmarks:
```
icl -Qvc10
```

Base Portability Flags

```
400.perlbench: -DSPEC_CPU_P64 -DSPEC_CPU_NO_NEED_VA_COPY
               -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 -DSPEC_CPU_NO_INTTYPES -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
```

Base Optimization Flags

C benchmarks:
```
-QxAVX -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qparallel -Qauto-ilp32
/F512000000
```

C++ benchmarks:
```
-QxAVX -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qcxx-features
-Qauto-ilp32 /F512000000 shlw64m.lib            -link /FORCE:MULTIPLE
```

Base Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

Peak Compiler Invocation

C benchmarks:
icl -Qvc10 -Qstd=c99

C++ benchmarks:
icl -Qvc10

Peak Portability Flags

Same as Base Portability Flags

Peak Optimization Flags

C benchmarks:

400.perlbench: -Qprof_gen(pass 1) -QxAVX -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-prefetch -Qauto-ilp32 /F512000000 shlw64m.lib -link /FORCE:MULTIPLE

401.bzip2: -Qprof_gen(pass 1) -QxAVX(pass 2) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qansi-alias -Qauto-ilp32 /F512000000

403.gcc: -Qprof_gen(pass 1) -QxAVX(pass 2) -Qprof_use(pass 2) -Qipo -O3 -Qprec-div- -Qauto-ilp32 /F512000000

429.mcf: -QxAVX -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qauto-ilp32 /F512000000

445.gobmk: -Qprof_gen(pass 1) -QxAVX(pass 2) -Qprof_use(pass 2) -Qipo -O2 -Qprec-div- -Qansi-alias -Qauto-ilp32 /F512000000

456.hmmer: -QxAVX -Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias -Qauto-ilp32 /F512000000

458.sjeng: basepeak = yes

462.libquantum: basepeak = yes

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Peak Optimization Flags (Continued)

464.h264ref: `-Qprof_gen`(pass 1) `-QxAVX`(pass 2) `-Qprof_use`(pass 2) `-Qipo -O3 -Qprec-div- -Qunroll2 -Qansi-alias -Qauto-ilp32 /F512000000`

C++ benchmarks:

471.omnetpp: `-Qprof_gen`(pass 1) `-QxAVX`(pass 2) `-Qprof_use`(pass 2) `-Qipo -O3 -Qprec-div- -Qansi-alias -Qopt-ra-region-strategy=block -Qauto-ilp32 /F512000000 shlw64m.lib -link /FORCE:MULTIPLE`

473.astar: `basepeak = yes`

483.xalancbmk: `basepeak = yes`

Peak Other Flags

C benchmarks:

403.gcc: `-Dalloca=_alloca`

The flags files that were used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Dell-ic12.1-Windows.html
http://www.spec.org/cpu2006/flags/Dell-platform-Precision.20131217.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Dell-ic12.1-Windows.xml
http://www.spec.org/cpu2006/flags/Dell-platform-Precision.20131217.xml

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