SPEC® CINT2006 Result

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Dell Inc.

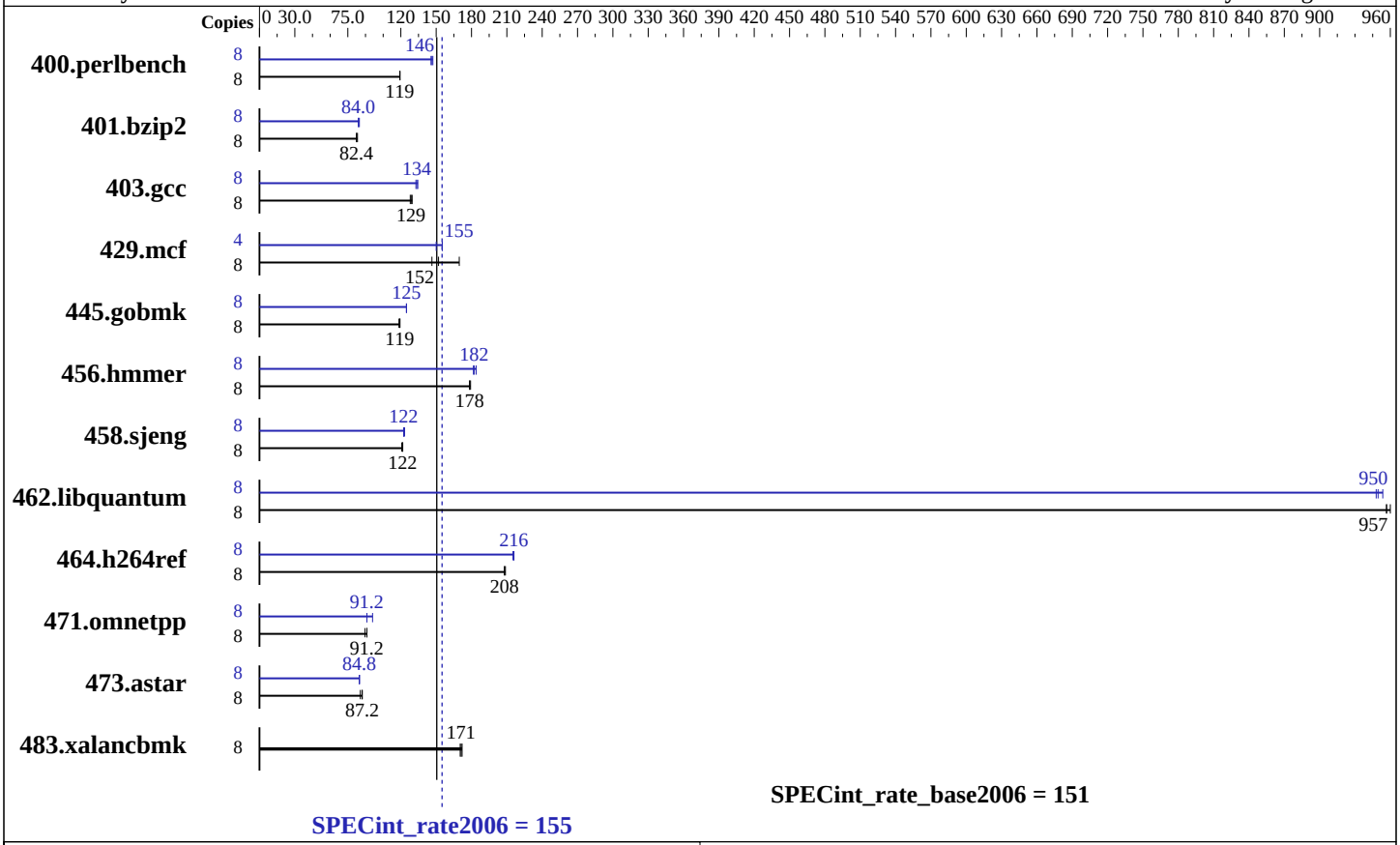
Dell Precision M3800 (Intel(R) Core(R) i7-4702HQ, 2.20 GHz)

SPECint®_rate2006 = 155

SPECint_rate_base2006 = 151

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

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



Hardware

CPU Name:	Intel Core i7-4702HQ
CPU Characteristics:	Intel Turbo Boost Technology up to 3.20 GHz
CPU MHz:	2200
FPU:	Integrated
CPU(s) enabled:	4 cores, 1 chip, 4 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:	6 MB I+D on chip per chip
Other Cache:	None
Memory:	16 GB (2 x 8 GB 1Rx8 PC3L-12800U-11)
Disk Subsystem:	1 x 1 TB 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:	No
File System:	NTFS
System State:	Default
Base Pointers:	32-bit
Peak Pointers:	32-bit
Other Software:	MicroQuill SmartHeap Library 10.0

Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	8	657	119	**655**	**119**	655	119	8	532	147	**535**	**146**	535	146
401.bzip2	8	**938**	**82.4**	939	82.4	931	83.2	8	909	84.8	**916**	**84.0**	921	84.0
403.gcc	8	497	130	502	128	**499**	**129**	8	480	134	485	133	**483**	**134**
429.mcf	8	430	170	499	146	**479**	**152**	4	235	155	**235**	**155**	243	150
445.gobmk	8	708	118	**705**	**119**	705	119	8	**674**	**125**	674	125	674	125
456.hmmer	8	419	178	416	179	**418**	**178**	8	406	184	412	182	**409**	**182**
458.sjeng	8	796	122	799	121	**798**	**122**	8	785	123	**791**	**122**	791	122
462.libquantum	8	**173**	**957**	173	960	173	957	8	175	948	174	954	**175**	**950**
464.h264ref	8	852	208	848	209	**850**	**208**	8	819	216	**820**	**216**	823	215
471.omnetpp	8	559	89.6	**549**	**91.2**	549	91.2	8	550	91.2	520	96.0	**549**	**91.2**
473.astar	8	645	87.2	653	85.6	**647**	**87.2**	8	662	84.8	659	84.8	**662**	**84.8**
483.xalancbmk	8	**322**	**171**	323	170	321	172	8	**322**	**171**	323	170	321	172

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

Submit Notes

```
The config file option 'submit' was used.
```

Operating System Notes

```
Set power configuration to High Performance and disabled monitor blanking and sleep timer
```

Platform Notes

```
Sysinfo program c:\cpu2006.v1.2/Docs/sysinfo
$Rev: 6775 $ $Date:: 2011-08-16 #$ \8787f7622badcf24e01c368b1db4377c
running on M3800-SPEC-PC Tue Nov 19 04:31:57 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  : Dell Precision M3800
Processor(s)  : 1 Processor(s) Installed.
     [01]: Intel64 Family 6 Model 60 Stepping 3 GenuineIntel ~2201 Mhz
BIOS Version  : Dell Inc. A00, 10/3/2013
Total Physical Memory: 16,287 MB

Trying 'wmic cpu get /value'
```

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Platform Notes (Continued)

```
DeviceID      : CPU0
L2CacheSize   : 1024
L3CacheSize   : 6144
MaxClockSpeed : 2201
Name          : Intel(R) Core(TM) i7-4702HQ CPU @ 2.20GHz
NumberOfCores : 4
NumberOfLogicalProcessors: 8

(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

403.gcc: -DSPEC_CPU_WIN32
464.h264ref: -DSPEC_CPU_NO_INTTYPES -DWIN32
483.xalancbmk: -Qoption,cpp,--no_wchar_t_keyword

Base Optimization Flags

C benchmarks:
-QxAVX -Qipo -O3 -Qprec-div- -Qopt-prefetch /F512000000

C++ benchmarks:
-QxAVX -Qipo -O3 -Qprec-div- -Qopt-prefetch -Qcxx-features
/F512000000 shlw32m.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

403.gcc: -DSPEC_CPU_WIN32
464.h264ref: -DSPEC_CPU_NO_INTTYPES -DWIN32
483.xalancbmk: -Qoption,cpp,--no_wchar_t_keyword

Peak Optimization Flags

C benchmarks:

400.perlbench: -Qprof_gen(pass 1) -QxAVX(pass 2) -Qprof_use(pass 2) -Qipo
-O3 -Qprec-div- -Qansi-alias -Qopt-prefetch /F512000000
shlw32m.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 /F512000000

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

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

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

456.hmmer: Same as 403.gcc

458.sjeng: -Qprof_gen(pass 1) -QxAVX(pass 2) -Qprof_use(pass 2) -Qipo
-O3 -Qprec-div- -Qunroll4 /F512000000

462.libquantum: Same as 429.mcf

464.h264ref: -Qprof_gen(pass 1) -QxAVX(pass 2) -Qprof_use(pass 2) -Qipo
-O3 -Qprec-div- -Qunroll2 -Qansi-alias /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 /F512000000 shlw32m.lib
-link /FORCE:MULTIPLE

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Peak Optimization Flags (Continued)

473.astar: `-QxAVX -Qipo -O3 -Qprec-div- -Qopt-prefetch /F512000000 shlw32m.lib -link /FORCE:MULTIPLE`

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

Tested with SPEC CPU2006 v1.2.
Report generated on Thu Jul 24 21:22:00 2014 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 6 January 2014.