SPEC® CINT2006 Result

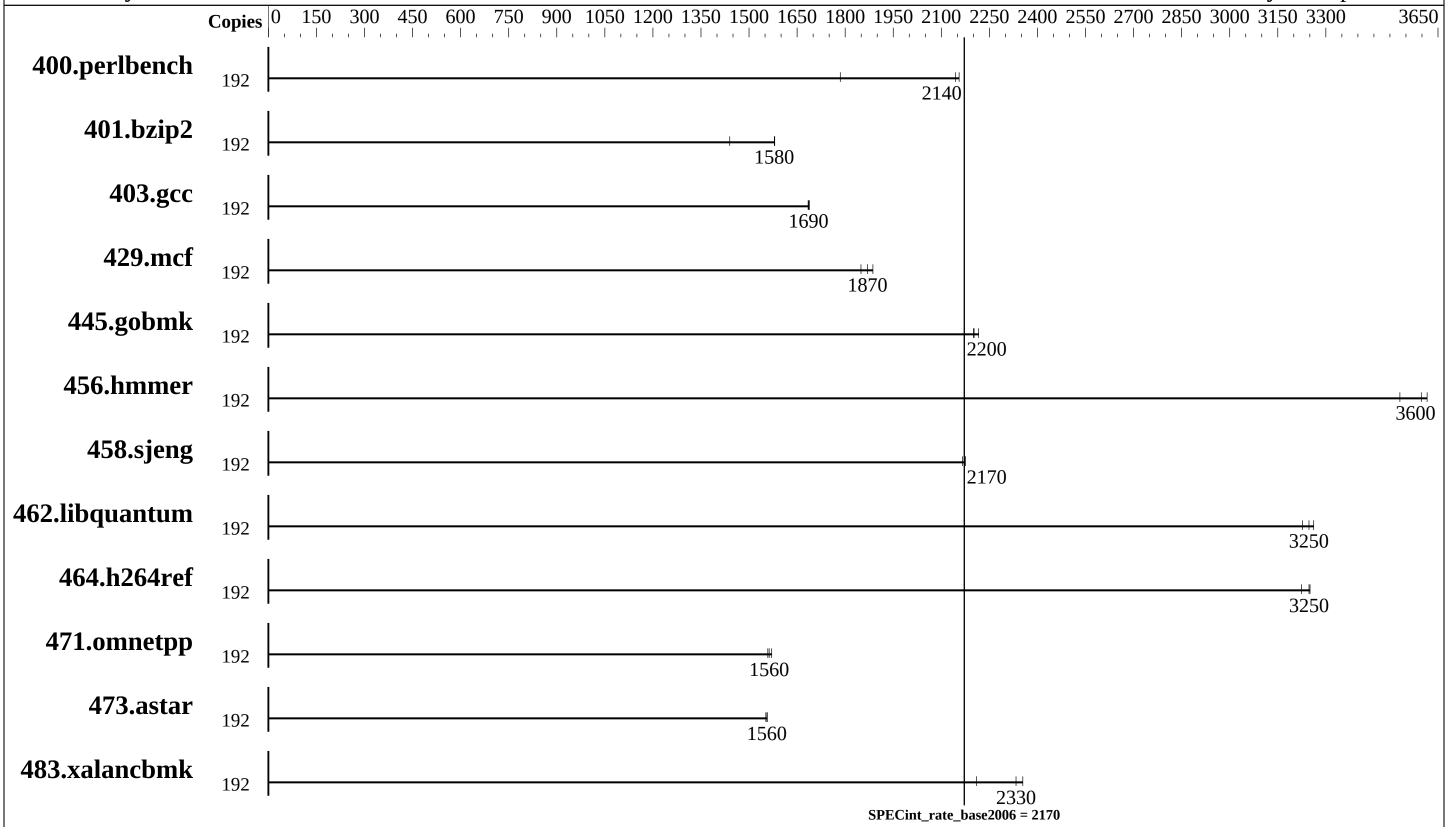
ScaleMP

vSMP Foundation (AMD Opteron 6172, 2.10 GHz)

SPECint®_rate2006 = Not Run

SPECint_rate_base2006 = 2170

CPU2006 license: 2929		**Test date:**	Sep-2011
Test sponsor:	ScaleMP	**Hardware Availability:**	Aug-2010
Tested by:	ScaleMP	**Software Availability:**	Sep-2011



Hardware

CPU Name:	AMD Opteron 6172
CPU Characteristics:	
CPU MHz:	2100
FPU:	Integrated
CPU(s) enabled:	192 cores, 16 chips, 12 cores/chip
CPU(s) orderable:	2 to 64 boards with 2 to 4 chips per board
Primary Cache:	64 KB I + 64 KB D on chip per core
Secondary Cache:	512 KB I+D on chip per core
L3 Cache:	12 MB I+D on chip per chip, 6 MB shared / 6 cores
Other Cache:	60 GB I+D off chip per system
Memory:	512 GB (8 x 16 x 4 GB 2Rx4 PC3-10600R-9, ECC)
Disk Subsystem:	8 x 250 GB SATA, 7200 RPM
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux Server release 5.5 (Tikanga) Kernel 2.6.32.46-5.vSMP
Compiler:	C/C++/Fortran: Version 4.2.4 of Open64 Compiler Suite
Auto Parallel:	No
File System:	xfs
System State:	Run level 3 (multi-user)
Base Pointers:	32/64-bit
Peak Pointers:	Not Applicable
Other Software:	Hoard (libhoard) 3.8, 32-bit Library for Linux ScaleMP vSMP Foundation 3.5.284, released Sep. 13, 2011

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Results Table

	Base							Peak						
Benchmark	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	192	1051	1780	**875**	**2140**	870	2160							
401.bzip2	192	1287	1440	**1174**	**1580**	1173	1580							
403.gcc	192	**917**	**1690**	916	1690	918	1680							
429.mcf	192	928	1890	**936**	**1870**	947	1850							
445.gobmk	192	**915**	**2200**	909	2220	915	2200							
456.hmmer	192	507	3530	**498**	**3600**	495	3620							
458.sjeng	192	1068	2170	**1068**	**2170**	1073	2170							
462.libquantum	192	1220	3260	**1225**	**3250**	1233	3230							
464.h264ref	192	1318	3220	1307	3250	**1308**	**3250**							
471.omnetpp	192	764	1570	770	1560	**768**	**1560**							
473.astar	192	866	1560	868	1550	**866**	**1560**							
483.xalancbmk	192	600	2210	563	2350	**568**	**2330**							

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.
The taskset command was used to bind processes to cores.
```

Operating System Notes

```
'ulimit -s unlimited' was used to set environment stack size
'ulimit -l 2097152'  was used to set environment locked pages in memory limit
```

Platform Notes

```
ScaleMP
    vSMP Foundation: 3.5.284, released Sep. 13, 2011
    See http://www.scalemp.com
Hardware Details:
   System was aggregated using 8 X SuperMicro AS-2122TG-HIBQRF servers.
   The servers were connected with Melanox InfiniBand QDR and a
   QDR switch.
```

General Notes

```
The x86 Open64 Compiler Suite is only available from (and supported by) AMD at
http://developer.amd.com/cpu/open64
Binaries were compiled on RHEL5.5 with binutils 2.18
```

Base Compiler Invocation

C benchmarks:
`opencc`

C++ benchmarks:
`openCC`

Base Portability Flags

400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
401.bzip2: -DSPEC_CPU_LP64
403.gcc: -DSPEC_CPU_LP64
429.mcf: -DSPEC_CPU_LP64
445.gobmk: -DSPEC_CPU_LP64
456.hmmer: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
464.h264ref: -DSPEC_CPU_LP64
483.xalancbmk: -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
-march=barcelona -mso -Ofast -CG:local_sched_alg=1
-INLINE:aggressive=on -IPA:plimit=8000 -IPA:small_pu=100

C++ benchmarks:
-march=barcelona -mso -Ofast -m32 -INLINE:aggressive=on
-CG:cmp_peep=on /usr/local/lib/libhoard.so

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/x86-open64-424-flags-rate-revC.20111014.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/x86-open64-424-flags-rate-revC.20111014.xml

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

Tested with SPEC CPU2006 v1.1.
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