SPEC® CINT2006 Result

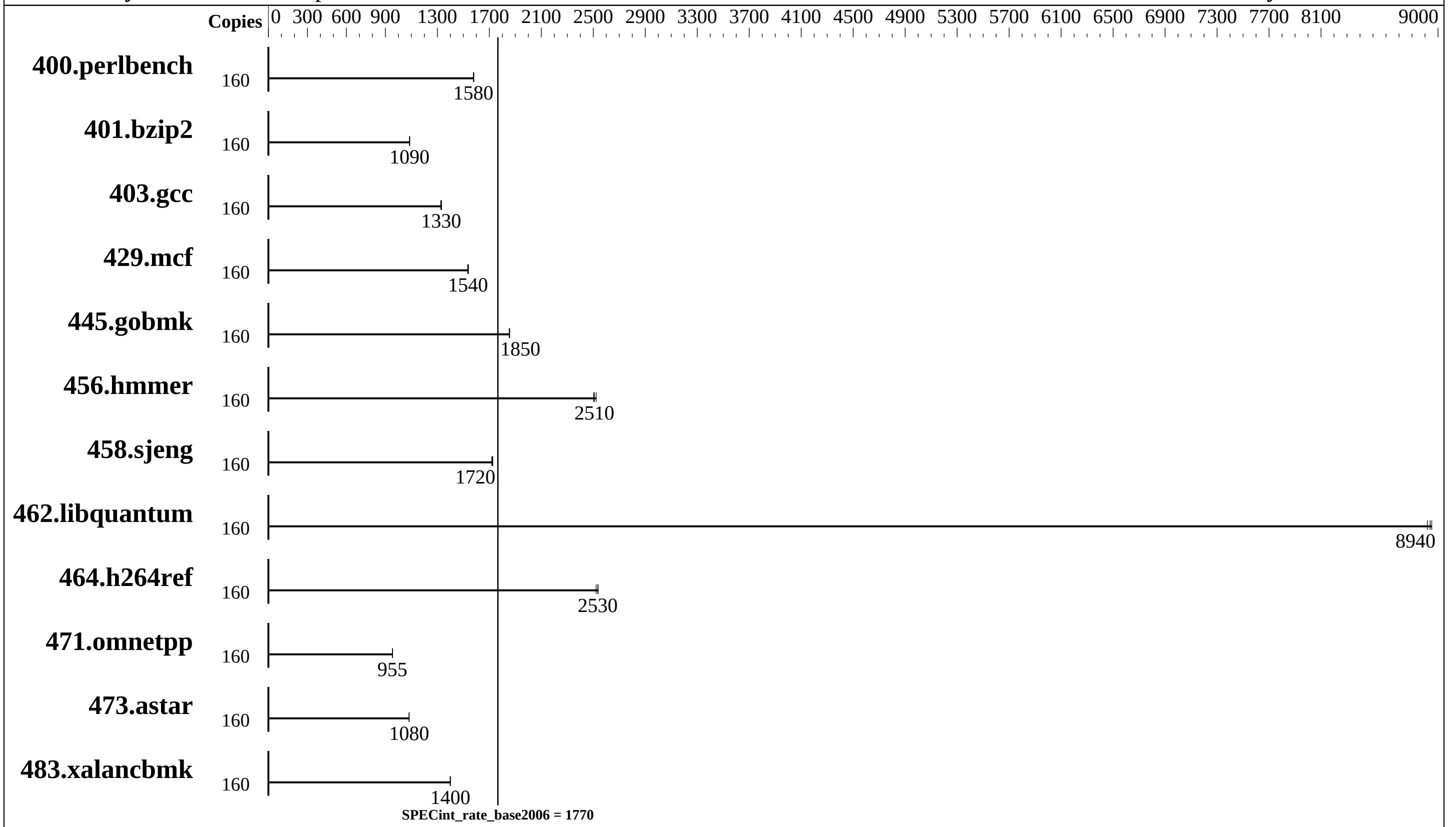
IBM Corporation

SPECint®_rate2006 = Not Run

IBM System x3850 X5 (Intel Xeon E7-8870)

SPECint_rate_base2006 = 1770

CPU2006 license:	11	**Test date:**	Jul-2011
Test sponsor:	IBM Corporation	**Hardware Availability:**	May-2011
Tested by:	IBM Corporation	**Software Availability:**	Jan-2011



Hardware

CPU Name:	Intel Xeon E7-8870
CPU Characteristics:	Intel Turbo Boost Technology up to 2.80 GHz
CPU MHz:	2400
FPU:	Integrated
CPU(s) enabled:	80 cores, 8 chips, 10 cores/chip, 2 threads/core
CPU(s) orderable:	2,3,4,5,6,7,8 chips
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	256 KB I+D on chip per core
L3 Cache:	30 MB I+D on chip per chip
Other Cache:	None
Memory:	1 TB (128 x 8 GB 4Rx8 PC3-8500R-7, ECC)
Disk Subsystem:	2 x 147 GB 15k RPM SAS, RAID 0
Other Hardware:	None

Software

Operating System:	SUSE Linux Enterprise Server 11 SP1 (x86_64), Kernel 2.6.32.12-0.7-default
Compiler:	Intel C++ Compiler XE for applications running on IA-32 Version 12.0.1.116 Build 20101116
Auto Parallel:	No
File System:	ext3
System State:	Run level 3 (multi-user)
Base Pointers:	32-bit
Peak Pointers:	32/64-bit
Other Software:	Microquill SmartHeap V9.01

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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	160	**991**	**1580**	989	1580	991	1580							
401.bzip2	160	1419	1090	**1422**	**1090**	1423	1090							
403.gcc	160	967	1330	971	1330	**969**	**1330**							
429.mcf	160	**950**	**1540**	948	1540	952	1530							
445.gobmk	160	906	1850	**905**	**1850**	904	1860							
456.hmmer	160	592	2520	596	2500	**595**	**2510**							
458.sjeng	160	1126	1720	**1123**	**1720**	1121	1730							
462.libquantum	160	372	8920	370	8950	**371**	**8940**							
464.h264ref	160	1404	2520	1396	2540	**1397**	**2530**							
471.omnetpp	160	**1048**	**955**	1048	954	1047	955							
473.astar	160	**1037**	**1080**	1037	1080	1036	1080							
483.xalancbmk	160	789	1400	788	1400	**788**	**1400**							

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.
 numactl was used to bind copies to the cores
```

Operating System Notes

```
'ulimit -s unlimited' was used to set the stacksize to unlimited prior to run
echo 1 > /proc/sys/vm/zone_reclaim_mode
'mount -t hugetlbfs nodev /mnt/hugepages' was used to enable large pages
echo 104000 > /proc/sys/vm/nr_hugepages
export HUGETLB_MORECORE=yes
export LD_PRELOAD=/usr/lib64/libhugetlbfs.so
```

Platform Notes

```
BIOS Settings:
Turbo Boost Power Optimization set to Traditional
```

General Notes

```
Binaries were compiled on RHEL5.5
```

Base Compiler Invocation

C benchmarks:
`icc -m32`

C++ benchmarks:
`icpc -m32`

Base Portability Flags

400.perlbench: `-DSPEC_CPU_LINUX_IA32`
462.libquantum: `-DSPEC_CPU_LINUX`
483.xalancbmk: `-DSPEC_CPU_LINUX`

Base Optimization Flags

C benchmarks:
```
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT
```

C++ benchmarks:
```
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs
-L/smartheap -lsmartheap
-B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT
```

Base 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/Intel-ic12.0-linux64-revB.html
http://www.spec.org/cpu2006/flags/IBM-platform-linux64-revA.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic12.0-linux64-revB.xml
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For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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