



# SPEC® CINT2006 Result

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Dell Inc.

**SPECint®\_rate2006 = Not Run**

PowerEdge R810 (Intel Xeon E7-4830, 2.13 GHz)

**SPECint\_rate\_base2006 = 358**

CPU2006 license: 55

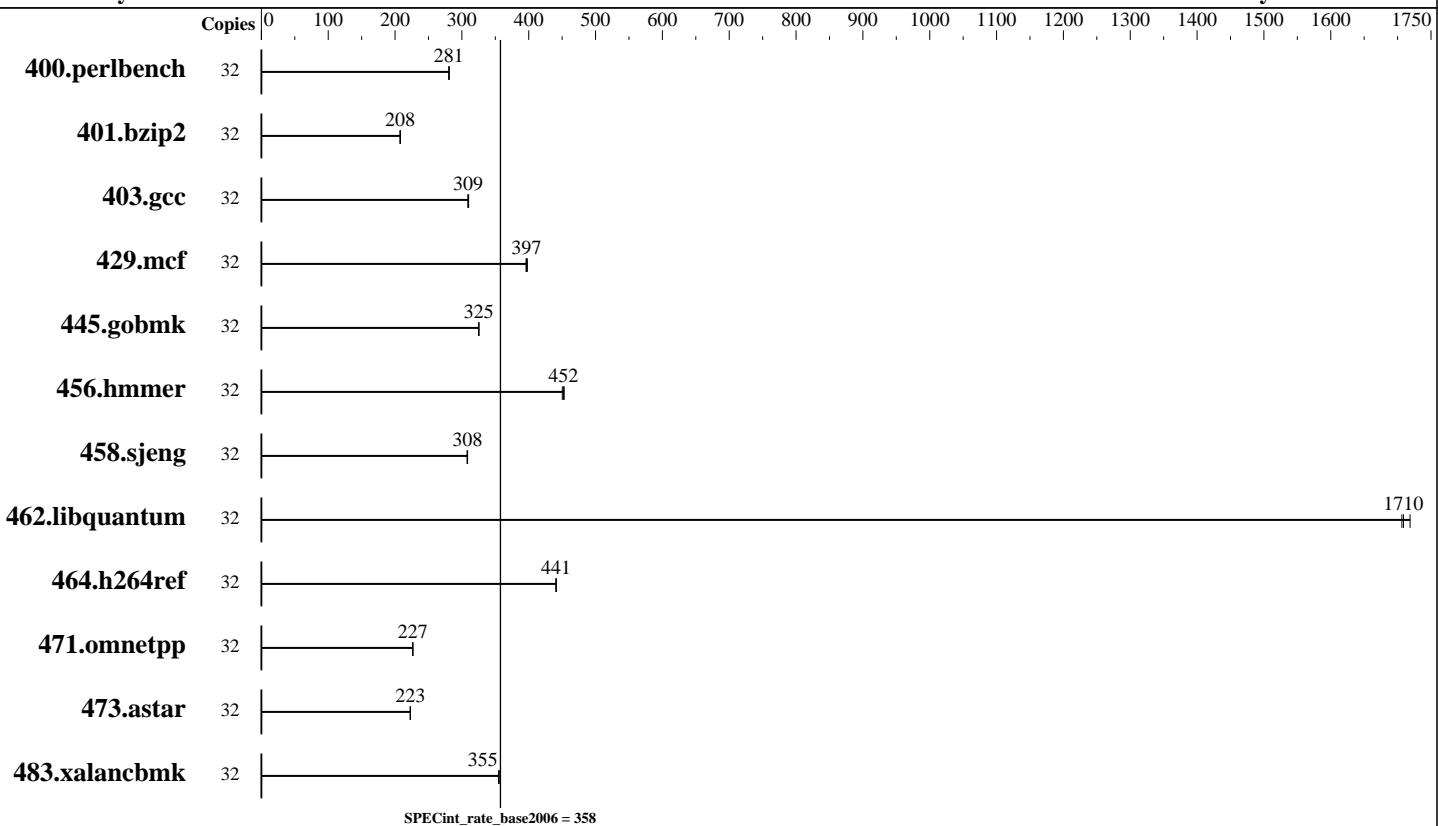
Test date: Mar-2011

Test sponsor: Dell Inc.

Hardware Availability: Apr-2011

Tested by: Dell Inc.

Software Availability: Jan-2011



## Hardware

CPU Name: Intel Xeon E7-4830  
 CPU Characteristics: Intel Turbo Boost Technology up to 2.40 GHz  
 CPU MHz: 2133  
 FPU: Integrated  
 CPU(s) enabled: 16 cores, 2 chips, 8 cores/chip, 2 threads/core  
 CPU(s) orderable: 2,4 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: 24 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 256 GB (32 x 8 GB 4Rx8 PC3L-8500R-7, ECC)  
 Disk Subsystem: 2 x 300 GB 10000 RPM SAS, RAID0  
 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: Not Applicable  
 Other Software: Microquill SmartHeap V9.01



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## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	32	1115	281	<b>1114</b>	<b>281</b>	1113	281							
401.bzip2	32	1489	207	1485	208	<b>1486</b>	<b>208</b>							
403.gcc	32	833	309	<b>833</b>	<b>309</b>	831	310							
429.mcf	32	737	396	<b>736</b>	<b>397</b>	733	398							
445.gobmk	32	<b>1032</b>	<b>325</b>	1032	325	1031	325							
456.hmmer	32	663	450	<b>661</b>	<b>452</b>	659	453							
458.sjeng	32	<b>1256</b>	<b>308</b>	1255	309	1258	308							
462.libquantum	32	<b>388</b>	<b>1710</b>	386	1720	389	1710							
464.h264ref	32	1607	441	<b>1606</b>	<b>441</b>	1605	441							
471.omnetpp	32	<b>883</b>	<b>227</b>	882	227	884	226							
473.astar	32	1007	223	<b>1007</b>	<b>223</b>	1009	223							
483.xalancbmk	32	<b>622</b>	<b>355</b>	622	355	621	356							

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
'mount -t hugetlbfs nodev /mnt/hugepages' was used to enable large pages
echo 14400 > /proc/sys/vm/nr_hugepages
export HUGETLB_MORECORE=yes
export LD_PRELOAD=/usr/lib64/libhugetlbfs.so
```

## Platform Notes

BIOS Settings:  
Power Management = Maximum Performance (Default = Active Power Controller)

## General Notes

Binaries were compiled on RHEL5.5

## Base Compiler Invocation

C benchmarks:  
icc -m32

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## Base Compiler Invocation (Continued)

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/smarterheap -lsmarterheap  
-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/Intel-Linux64-Platform.20110524.00.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 other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.1.

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