



# SPEC® CINT2006 Result

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**Wipro Limited**

**SPECint\_rate2006 = 379**

**Wipro NetPowerZ2243/NetPowerZ2243R**

**SPECint\_rate\_base2006 = 358**

CPU2006 license: 937

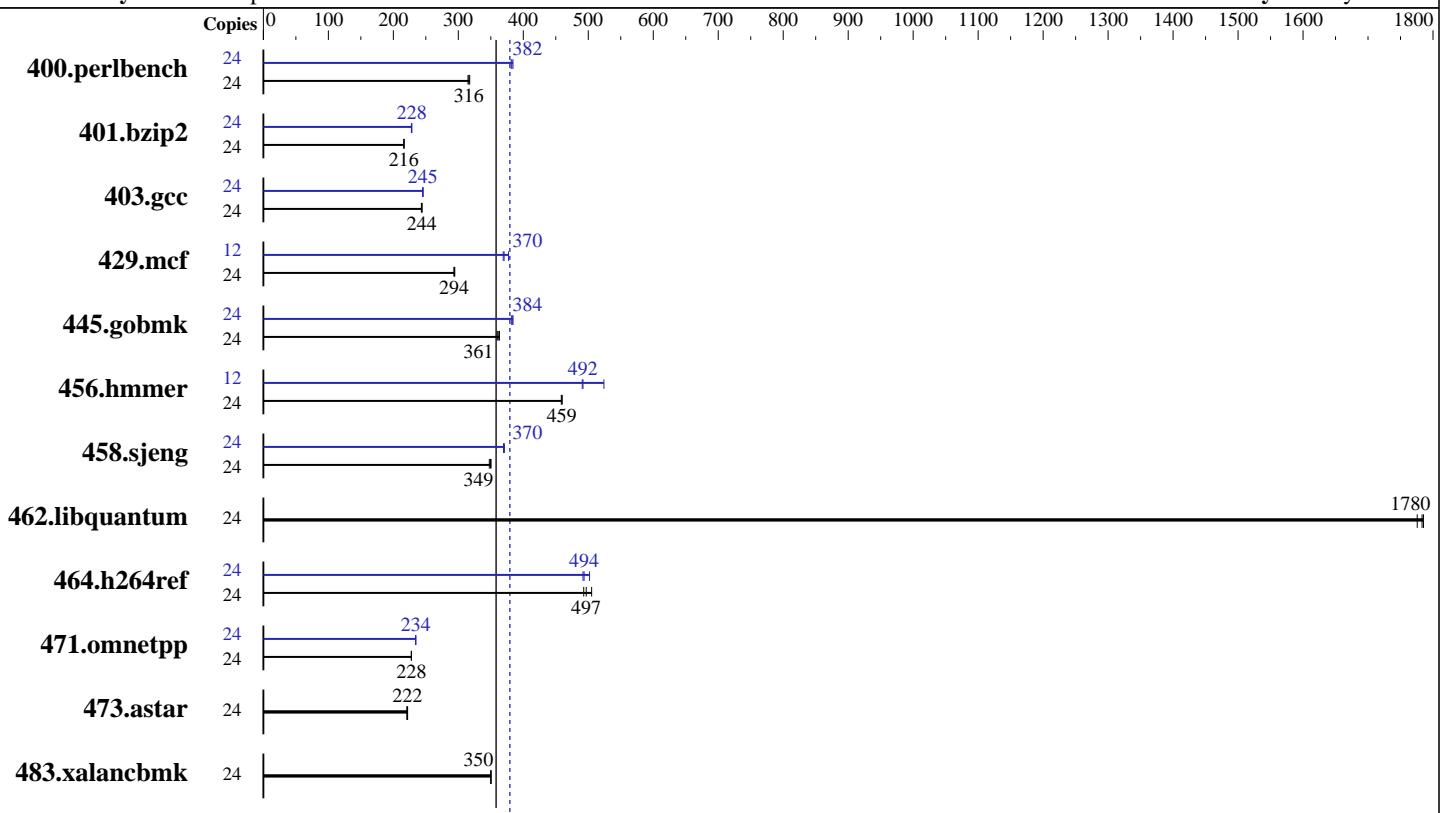
Test date: Jun-2011

Test sponsor: Wipro Limited

Hardware Availability: Apr-2011

Tested by: Wipro Limited

Software Availability: May-2011



**SPECint\_rate\_base2006 = 358**

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## Hardware

CPU Name: Intel Xeon X5670  
CPU Characteristics: Intel Turbo Boost Technology up to 3.33 GHz  
CPU MHz: 2933  
FPU: Integrated  
CPU(s) enabled: 12 cores, 2 chips, 6 cores/chip, 2 threads/core  
CPU(s) orderable: 1,2 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: 12 MB I+D on chip per chip  
Other Cache: None  
Memory: 96 GB (12 x 8 GB 2Rx4 PC3-10600R-9, ECC)  
Disk Subsystem: 1 x 160 GB SATA, 7200RPM  
Other Hardware: None

## Software

Operating System: SuSe Linux SLES10 (x86\_64) SP1, Kernel 2.6.27.19-5-default  
Compiler: Intel C++ Compiler XE for applications running on IA-32 Version 12.0.1.116 Build 20101116  
Auto Parallel: No  
File System: ReiserFS  
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

| Benchmark      | Base   |             |             |             |            |            |            | Peak   |             |             |             |            |            |            |
|----------------|--------|-------------|-------------|-------------|------------|------------|------------|--------|-------------|-------------|-------------|------------|------------|------------|
|                | Copies | Seconds     | Ratio       | Seconds     | Ratio      | Seconds    | Ratio      | Copies | Seconds     | Ratio       | Seconds     | Ratio      | Seconds    | Ratio      |
| 400.perlbench  | 24     | 745         | 315         | <b>741</b>  | <b>316</b> | 738        | 318        | 24     | 610         | 384         | 615         | 381        | <b>613</b> | <b>382</b> |
| 401.bzip2      | 24     | <b>1071</b> | <b>216</b>  | 1070        | 217        | 1071       | 216        | 24     | <b>1015</b> | <b>228</b>  | 1017        | 228        | 1014       | 228        |
| 403.gcc        | 24     | 791         | 244         | 795         | 243        | <b>792</b> | <b>244</b> | 24     | 788         | 245         | 786         | 246        | <b>788</b> | <b>245</b> |
| 429.mcf        | 24     | 746         | 293         | <b>745</b>  | <b>294</b> | 743        | 295        | 12     | 297         | 369         | 290         | 377        | <b>295</b> | <b>370</b> |
| 445.gobmk      | 24     | <b>697</b>  | <b>361</b>  | 693         | 363        | 700        | 360        | 24     | <b>656</b>  | <b>384</b>  | 656         | 384        | 660        | 382        |
| 456.hammer     | 24     | 487         | 460         | 488         | 458        | <b>487</b> | <b>459</b> | 12     | 214         | 524         | 228         | 491        | <b>228</b> | <b>492</b> |
| 458.sjeng      | 24     | 835         | 348         | <b>831</b>  | <b>349</b> | 829        | 350        | 24     | 783         | 371         | <b>786</b>  | <b>370</b> | 786        | 370        |
| 462.libquantum | 24     | <b>279</b>  | <b>1780</b> | 279         | 1790       | 280        | 1780       | 24     | <b>279</b>  | <b>1780</b> | 279         | 1790       | 280        | 1780       |
| 464.h264ref    | 24     | 1077        | 493         | <b>1069</b> | <b>497</b> | 1051       | 505        | 24     | 1080        | 492         | <b>1076</b> | <b>494</b> | 1058       | 502        |
| 471.omnetpp    | 24     | 659         | 228         | 658         | 228        | <b>659</b> | <b>228</b> | 24     | 640         | 235         | <b>640</b>  | <b>234</b> | 640        | 234        |
| 473.astar      | 24     | 759         | 222         | <b>760</b>  | <b>222</b> | 763        | 221        | 24     | 759         | 222         | <b>760</b>  | <b>222</b> | 763        | 221        |
| 483.xalancbmk  | 24     | <b>473</b>  | <b>350</b>  | 473         | 350        | 473        | 350        | 24     | <b>473</b>  | <b>350</b>  | 473         | 350        | 473        | 350        |

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 stack size to unlimited prior to run  
Large pages were disabled for this run

## General Notes

Binaries compiled on RHEL5.5 with binutils-2.17.50.0.6-14.el5

## Base Compiler Invocation

C benchmarks:  
icc -m32

C++ benchmarks:  
icpc -m32



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## 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/libhugetlbf/ -Wl,-hugetlbf-link=BDT
```

C++ benchmarks:

```
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -Wl,-z,muldefs  
-L/smartheap -lsmartheap  
-B /usr/share/libhugetlbf/ -Wl,-hugetlbf-link=BDT
```

## Base Other Flags

C benchmarks:

403.gcc: -Dalloca=\_alloca

## Peak Compiler Invocation

C benchmarks (except as noted below):

icc -m32

400.perlbench: icc -m64

401.bzip2: icc -m64

456.hmmer: icc -m64

458.sjeng: icc -m64

C++ benchmarks:

icpc -m32

## Peak Portability Flags

400.perlbench: -DSPEC\_CPU\_LP64 -DSPEC\_CPU\_LINUX\_X64

401.bzip2: -DSPEC\_CPU\_LP64

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## Peak Portability Flags (Continued)

```
456.hmmr: -DSPEC_CPU_LP64
458.sjeng: -DSPEC_CPU_LP64
462.libquantum: -DSPEC_CPU_LINUX
483.xalancbmk: -DSPEC_CPU_LINUX
```

## Peak Optimization Flags

C benchmarks:

```
400.perlbench: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
               -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
               -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

401.bzip2: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
            -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
            -opt-prefetch -auto-ilp32 -ansi-alias
            -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

403.gcc: -xSSE4.2 -ipo -O3 -no-prec-div
          -B /usr/share/libhugetlbfs/ -Wl,-hugetlbfs-link=BDT

429.mcf: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
           -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
           -ansi-alias -auto-ilp32

445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
            -ansi-alias -auto-ilp32

456.hmmr: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32
            -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

458.sjeng: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
            -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
            -unroll4 -auto-ilp32
            -B /usr/share/libhugetlbfs/ -Wl,-melf_x86_64 -Wl,-hugetlbfs-link=BDT

462.libquantum: basepeak = yes

464.h264ref: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
               -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
               -unroll2 -ansi-alias
```

C++ benchmarks:

```
471.omnetpp: -xSSE4.2(pass 2) -prof-gen(pass 1) -ipo(pass 2)
               -O3(pass 2) -no-prec-div(pass 2) -prof-use(pass 2)
               -ansi-alias -opt-ra-region-strategy=block -Wl,-z,muldefs
               -L/smartheap -lsmartheap
```

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## Peak Optimization Flags (Continued)

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/Intel-ic12.0-linux64-revB.html>  
<http://www.spec.org/cpu2006/flags/Wipro-Platform.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>  
<http://www.spec.org/cpu2006/flags/Wipro-Platform.xml>

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For questions about this result, please contact the tester.  
For other inquiries, please contact [webmaster@spec.org](mailto:webmaster@spec.org).

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