



# SPEC<sup>®</sup> CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

## Itautec

## SPECint<sup>®</sup>\_rate2006 = 465

### Servidor Itautec MX225 (Intel Xeon E5-2640)

## SPECint\_rate\_base2006 = 451

CPU2006 license: 9001

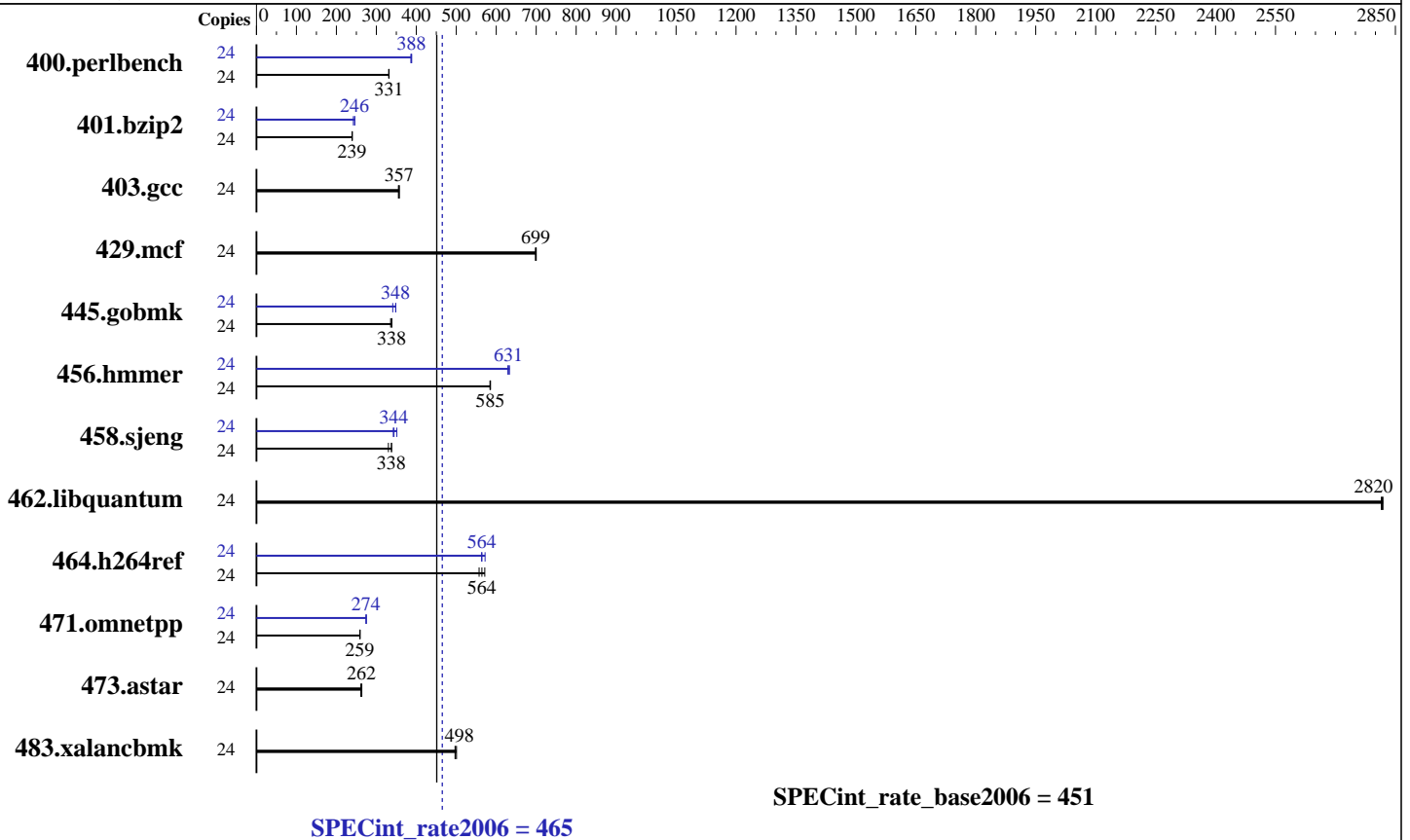
Test date: Apr-2013

Test sponsor: Itautec

Hardware Availability: Jun-2012

Tested by: Itautec

Software Availability: Jan-2013



### Hardware

CPU Name: Intel Xeon E5-2640  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.00 GHz  
 CPU MHz: 2500  
 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: 15 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 128 GB (16 x 8 GB 2Rx8 PC3-12800R-11, ECC, running at 1333 MHz and CL9)  
 Disk Subsystem: 500 GB, SATA-3, 7200 RPM  
 Other Hardware: None

### Software

Operating System: Red Hat Enterprise Linux Server Release 6.3, 2.6.32-279.el6.x86\_64  
 Compiler: C/C++: Version 13.1.0.146 of Intel Compiler XE Build 20130121  
 Auto Parallel: No  
 File System: ext4  
 System State: Run level 3 (multi-user)  
 Base Pointers: 32-bit  
 Peak Pointers: 32/64-bit  
 Other Software: Microquill SmartHeap V8.1



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itaotec

SPECint\_rate2006 = 465

Servidor Itaotec MX225 (Intel Xeon E5-2640)

SPECint\_rate\_base2006 = 451

CPU2006 license: 9001  
Test sponsor: Itaotec  
Tested by: Itaotec

Test date: Apr-2013  
Hardware Availability: Jun-2012  
Software Availability: Jan-2013

## Results Table

Benchmark	Base							Peak						
	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	24	708	331	<u>707</u>	<u>331</u>	707	332	24	<u>605</u>	<u>388</u>	604	388	607	386
401.bzip2	24	968	239	<u>967</u>	<u>239</u>	967	240	24	942	246	<u>943</u>	<u>246</u>	955	242
403.gcc	24	<u>542</u>	<u>357</u>	544	355	540	358	24	<u>542</u>	<u>357</u>	544	355	540	358
429.mcf	24	313	700	<u>313</u>	<u>699</u>	314	698	24	313	700	<u>313</u>	<u>699</u>	314	698
445.gobmk	24	743	339	<u>744</u>	<u>338</u>	750	336	24	738	341	<u>723</u>	<u>348</u>	722	349
456.hammer	24	383	585	382	586	<u>383</u>	<u>585</u>	24	356	629	<u>355</u>	<u>631</u>	354	633
458.sjeng	24	<u>860</u>	<u>338</u>	859	338	880	330	24	<u>844</u>	<u>344</u>	827	351	848	342
462.libquantum	24	<u>177</u>	<u>2820</u>	177	2810	176	2820	24	<u>177</u>	<u>2820</u>	177	2810	176	2820
464.h264ref	24	930	571	<u>941</u>	<u>564</u>	953	557	24	<u>941</u>	<u>564</u>	928	572	943	563
471.omnetpp	24	579	259	<u>579</u>	<u>259</u>	579	259	24	545	275	<u>547</u>	<u>274</u>	547	274
473.astar	24	<u>642</u>	<u>262</u>	645	261	639	264	24	<u>642</u>	<u>262</u>	645	261	639	264
483.xalancbmk	24	331	501	333	497	<u>332</u>	<u>498</u>	24	331	501	333	497	<u>332</u>	<u>498</u>

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.  
Large pages were not enabled for this run

## Platform Notes

Sysinfo program /home/rcaneca/cpu2006/Docs/sysinfo  
\$Rev: 6775 \$ \$Date:: 2011-08-16 #\$ 8787f7622badcf24e01c368b1db4377c  
running on mx225 Thu Apr 4 13:01:16 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>

From /proc/cpuinfo  
model name : Intel(R) Xeon(R) CPU E5-2640 0 @ 2.50GHz  
2 "physical id"s (chips)  
24 "processors"  
cores, siblings (Caution: counting these is hw and system dependent. The  
following excerpts from /proc/cpuinfo might not be reliable. Use with  
caution.)  
cpu cores : 6  
siblings : 12

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

SPECint\_rate2006 = 465

Servidor Itautec MX225 (Intel Xeon E5-2640)

SPECint\_rate\_base2006 = 451

CPU2006 license: 9001  
Test sponsor: Itautec  
Tested by: Itautec

Test date: Apr-2013  
Hardware Availability: Jun-2012  
Software Availability: Jan-2013

## Platform Notes (Continued)

```
physical 0: cores 0 1 2 3 4 5
physical 1: cores 0 1 2 3 4 5
cache size : 15360 KB
```

```
From /proc/meminfo
MemTotal:      132104788 kB
HugePages_Total:      0
Hugepagesize:    2048 kB
```

```
/usr/bin/lsb_release -d
Red Hat Enterprise Linux Server release 6.3 (Santiago)
```

```
From /etc/*release* /etc/*version*
redhat-release: Red Hat Enterprise Linux Server release 6.3 (Santiago)
system-release: Red Hat Enterprise Linux Server release 6.3 (Santiago)
system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server
```

```
uname -a:
Linux mx225 2.6.32-279.el6.x86_64 #1 SMP Wed Jun 13 18:24:36 EDT 2012 x86_64
x86_64 x86_64 GNU/Linux
```

```
run-level 3 Apr 4 12:02
```

```
SPEC is set to: /home/rcaneca/cpu2006
Filesystem      Type      Size  Used Avail Use% Mounted on
/dev/mapper/vg_mx225-lv_home
                ext4      404G  3.6G  380G   1% /home
```

(End of data from sysinfo program)

## General Notes

This result was measured on the Servidor Itautec MX225.  
The Servidor Itautec MX215 and the Servidor Itautec MX225  
are electronically equivalent.

```
runspec command invoked through numactl i.e.:
numactl --interleave=all runspec <etc>
```

```
Filesystem page cache cleared with:
echo 1 > /proc/sys/vm/drop_caches
Environment variables set by runspec before the start of the run:
KMP_AFFINITY = "granularity=fine,scatter"
Filesystem page cache cleared with:
echo 1> /proc/sys/vm/drop_caches
```



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itaotec

SPECint\_rate2006 = 465

Servidor Itaotec MX225 (Intel Xeon E5-2640)

SPECint\_rate\_base2006 = 451

CPU2006 license: 9001  
Test sponsor: Itaotec  
Tested by: Itaotec

Test date: Apr-2013  
Hardware Availability: Jun-2012  
Software Availability: Jan-2013

## 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 -opt-mem-layout-trans=3  
  
C++ benchmarks:  
-xSSE4.2 -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3  
-Wl,-z,muldefs -L/home/rcaneca/sh/SmartHeap\_8.1/lib -lsmartheap

## 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



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itaotec

SPECint\_rate2006 = 465

Servidor Itaotec MX225 (Intel Xeon E5-2640)

SPECint\_rate\_base2006 = 451

CPU2006 license: 9001  
Test sponsor: Itaotec  
Tested by: Itaotec

Test date: Apr-2013  
Hardware Availability: Jun-2012  
Software Availability: Jan-2013

## Peak Portability Flags

400.perlbench: -DSPEC\_CPU\_LP64 -DSPEC\_CPU\_LINUX\_X64  
401.bzip2: -DSPEC\_CPU\_LP64  
456.hmmer: -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)  
-auto-ilp32  
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  
403.gcc: basepeak = yes  
429.mcf: basepeak = yes  
445.gobmk: -xSSE4.2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)  
-ansi-alias -opt-mem-layout-trans=3  
456.hmmer: -xSSE4.2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32  
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  
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/home/rcaneca/sh/SmartHeap\_8.1/lib -lsmarheap  
473.astar: basepeak = yes

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2014 Standard Performance Evaluation Corporation

Itautec

SPECint\_rate2006 = 465

Servidor Itautec MX225 (Intel Xeon E5-2640)

SPECint\_rate\_base2006 = 451

CPU2006 license: 9001

Test sponsor: Itautec

Tested by: Itautec

Test date: Apr-2013

Hardware Availability: Jun-2012

Software Availability: Jan-2013

## Peak Optimization Flags (Continued)

483.xalanbmk: 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/Itautec-Servidor\\_Itautec-Intel-Linux-Platform.20130507.html](http://www.spec.org/cpu2006/flags/Itautec-Servidor_Itautec-Intel-Linux-Platform.20130507.html)

<http://www.spec.org/cpu2006/flags/Intel-ic13-official-linux64.html>

You can also download the XML flags sources by saving the following links:

[http://www.spec.org/cpu2006/flags/Itautec-Servidor\\_Itautec-Intel-Linux-Platform.20130507.xml](http://www.spec.org/cpu2006/flags/Itautec-Servidor_Itautec-Intel-Linux-Platform.20130507.xml)

<http://www.spec.org/cpu2006/flags/Intel-ic13-official-linux64.xml>

SPEC and SPECint are registered trademarks of the Standard Performance Evaluation Corporation. All other brand and product names appearing in this result are trademarks or registered trademarks of their respective holders.

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

Tested with SPEC CPU2006 v1.2.  
Report generated on Thu Jul 24 15:33:17 2014 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 7 May 2013.