**ACTION S.A.**

ACTINA SOLAR 215 X5 (Intel Xeon E5-2430)

**SPECint\_rate2006 = 408**

SPEC\_rate_base2006 = 390

**Hardware**

- **CPU Name:** Intel Xeon E5-2430
- **CPU Characteristics:** Intel Turbo Boost Technology up to 2.70 GHz
- **CPU MHz:** 2200
- **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 L1+D on chip per core
- **L3 Cache:** 15 MB I+D on chip per chip
- **Other Cache:** None
- **Memory:** 64 GB (8 x 8 GB 2Rx4 PC3-10600R-9, ECC)
- **Disk Subsystem:** 1 x 2 TB SATA 7200 RPM
- **Other Hardware:** None

**Software**

- **Operating System:** SUSE Linux Enterprise Server 11 SP2 (x86_64) 3.0.13-0.27-default
- **Compiler:** C/C++ Version 12.1.0.225 of Intel C++ Studio XE for Linux
- **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

**Test Sponsor:** ACTION S.A.

**Hardware Availability:** May-2012

**Test Date:** Apr-2012

**Tested by:** ACTION S.A.

**Software Availability:** Feb-2012

**CPU2006 license:** 9008

**Tested by:** ACTION S.A.

**Software Availability:** Feb-2012
### Results Table

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</tbody>
</table>

### Submit Notes

The numactl mechanism was used to bind copies to processors. The config file option 'submit' was used to generate numactl commands to bind each copy to a specific processor. For details, please see the config file.

### Operating System Notes

Stack size set to unlimited using "ulimit -s unlimited"

### Platform Notes

Sysinfo program /cpu2006.1.2/config/sysinfo.rev6800
$Rev: 6800 $ $Date:: 2011-10-11 $ 6f2ebdf55032aa42e583f96b07f99d3
running on linux-zwpf Thu Apr 26 11:41:37 2012

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 E5-2430 0 @ 2.20GHz
  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
ACTION S.A.

ACTINA SOLAR 215 X5 (Intel Xeon E5-2430)

SPECint_rate2006 = 408
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CPU2006 license: 9008
Test sponsor: ACTION S.A.
Tested by: ACTION S.A.

Test date: Apr-2012
Hardware Availability: May-2012
Software Availability: Feb-2012

Platform Notes (Continued)

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

From /proc/meminfo
MemTotal: 65925688 kB
HugePages_Total: 0
Hugepagesize: 2048 kB

/usr/bin/lsb_release -d
SUSE Linux Enterprise Server 11 (x86_64)

From /etc/*release* /etc/*version*
SuSE-release:
   SUSE Linux Enterprise Server 11 (x86_64)
   VERSION = 11
   PATCHLEVEL = 2

uname -a:
   Linux linux-zwpf 3.0.13-0.27-default #1 SMP Wed Feb 15 13:33:49 UTC 2012
      (d73692b) x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Apr 26 11:38 last=S
SPEC is set to: /cpu2006.1.2

Additional information from dmidecode:
(End of data from sysinfo program)

General Notes

Environment variables set by runspec before the start of the run:
LD_LIBRARY_PATH = "/cpu2006.1.2/libs/32:/cpu2006.1.2/libs/64"

Binaries compiled on a system with 1x Core i7-860 CPU + 8GB memory using RHEL5.5
Transparent Huge Pages enabled with:
echo always > /sys/kernel/mm/transparent_hugepage/enabled

Filesystem page cache cleared with:
echo 1 > /proc/sys/vm/drop_caches

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

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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/smartheap -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
ACTION S.A.  
ACTINA SOLAR 215 X5 (Intel Xeon E5-2430) 

**SPEC CINT2006 Result**

**SPECint_rate2006 = 408**  
**SPECint_rate_base2006 = 390**

**CPU2006 license:** 9008  
**Test date:** Apr-2012  
**Test sponsor:** ACTION S.A.  
**Hardware Availability:** May-2012  
**Tested by:** ACTION S.A.  
**Software Availability:** Feb-2012

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### 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`

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### 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: `-xSSE4.2` `-ipo` `-o3` `-no-prec-div`
- 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/smarteap` `-lsmarteap`
- 473.astar: `basepeak = yes`

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Continued on next page
ACTION S.A.
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Tested by: ACTION S.A.

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Peak Optimization Flags (Continued)

483.xalancbmk:basepeak = yes

Peak Other Flags

C benchmarks:

403.gcc: -Dalloca=_alloca

The flags file that was used to format this result can be browsed at
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.html

You can also download the XML flags source by saving the following link:
http://www.spec.org/cpu2006/flags/Intel-ic12.1-official-linux64.20111122.xml

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For other inquiries, please contact webmaster@spec.org.

Tested with SPEC CPU2006 v1.2.