SPEC® CINT2006 Result
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Acer Incorporated

SPECint®_rate2006 = 175

Altos C100 F3 (Intel Xeon E3-1220 v3)

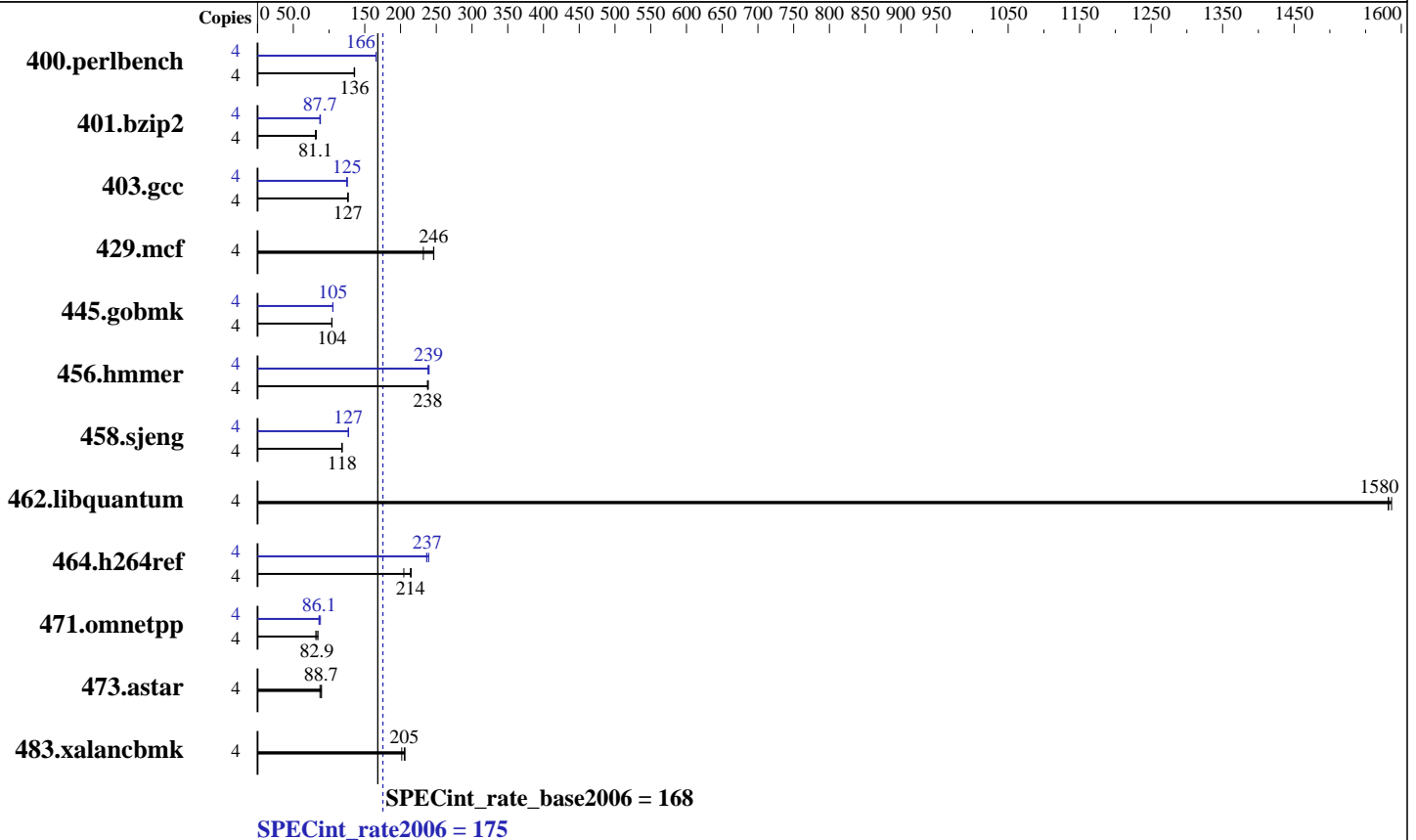SPECint_rate_base2006 = 168

CPU2006 license: 97

Test sponsor: Acer Incorporated

Tested by: Acer Incorporated

Test date: Nov-2013

Hardware Availability: Jan-2014

Software Availability: Nov-2013

Copies | 0 50.0 150 200 250 300 350 400 450 500 550 600 650 700 750 800 850 900 950 1050 1150 1250 1350 1450 1600

Benchmark	Copies	Value(s)
400.perlbench	4 / 4	166 / 136
401.bzip2	4 / 4	87.7 / 81.1
403.gcc	4 / 4	125 / 127
429.mcf	4	246
445.gobmk	4 / 4	105 / 104
456.hmmer	4 / 4	239 / 238
458.sjeng	4 / 4	127 / 118
462.libquantum	4	1580
464.h264ref	4 / 4	237 / 214
471.omnetpp	4 / 4	86.1 / 82.9
473.astar	4	88.7
483.xalancbmk	4	205

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Hardware

CPU Name:	Intel Xeon E3-1220 v3
CPU Characteristics:	Intel Turbo Boost Technology up to 3.50 GHz
CPU MHz:	3100
FPU:	Integrated
CPU(s) enabled:	4 cores, 1 chip, 4 cores/chip
CPU(s) orderable:	1 chip
Primary Cache:	32 KB I + 32 KB D on chip per core
Secondary Cache:	256 KB I+D on chip per core
L3 Cache:	8 MB I+D on chip per chip
Other Cache:	None
Memory:	16 GB (2 x 8 GB 2Rx8 PC3L-12800E-11, ECC)
Disk Subsystem:	1 x 1 TB SATA, 7200 RPM
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux Server release 6.4 (Santiago) 2.6.32-358.el6.x86_64
Compiler:	C/C++: Version 14.0.0.080 of Intel C++ Studio XE for Linux
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 V10.0

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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	4	289	135	288	136	**288**	**136**	4	236	166	236	166	**236**	**166**
401.bzip2	4	469	82.3	476	81.0	**476**	**81.1**	4	**440**	**87.7**	439	88.0	443	87.1
403.gcc	4	**254**	**127**	256	126	254	127	4	256	126	**258**	**125**	258	125
429.mcf	4	157	232	148	247	**148**	**246**	4	157	232	148	247	**148**	**246**
445.gobmk	4	**403**	**104**	403	104	404	104	4	398	105	398	105	**398**	**105**
456.hmmer	4	156	239	**157**	**238**	157	238	4	156	240	157	238	**156**	**239**
458.sjeng	4	**410**	**118**	409	118	410	118	4	381	127	381	127	**381**	**127**
462.libquantum	4	**52.4**	**1580**	52.4	1580	52.2	1590	4	**52.4**	**1580**	52.4	1580	52.2	1590
464.h264ref	4	433	205	**414**	**214**	412	215	4	**373**	**237**	374	237	370	239
471.omnetpp	4	307	81.5	296	84.6	**302**	**82.9**	4	290	86.1	284	88.0	**290**	**86.1**
473.astar	4	322	87.3	314	89.5	**317**	**88.7**	4	322	87.3	314	89.5	**317**	**88.7**
483.xalancbmk	4	**134**	**205**	137	202	134	206	4	**134**	**205**	137	202	134	206

Results appear in the order in which they were run. Bold underlined text indicates a median measurement.

Submit Notes

    The taskset mechanism was used to bind copies to processors. The config file option 'submit'
    was used to generate taskset 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 /usr/cpu2006/config/sysinfo.rev6818
    $Rev: 6818 $ $Date:: 2012-07-17 #$ e86d102572650a6e4d596a3cee98f191
    running on localhost.localdomain Fri Nov 29 16:24:41 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 E3-1220 v3 @ 3.10GHz
          1 "physical id"s (chips)
          4 "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 : 4
          siblings : 4

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Platform Notes (Continued)

```
     physical 0: cores 0 1 2 3
   cache size : 8192 KB

 From /proc/meminfo
    MemTotal:       16259380 kB
    HugePages_Total:        0
    Hugepagesize:       2048 kB

 /usr/bin/lsb_release -d
    Red Hat Enterprise Linux Server release 6.4 (Santiago)

 From /etc/*release* /etc/*version*
    redhat-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
    system-release: Red Hat Enterprise Linux Server release 6.4 (Santiago)
    system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

 uname -a:
    Linux localhost.localdomain 2.6.32-358.el6.x86_64 #1 SMP Tue Jan 29 11:47:41
    EST 2013 x86_64 x86_64 x86_64 GNU/Linux

 run-level 3 Nov 29 16:16

 SPEC is set to: /usr/cpu2006
    Filesystem     Type    Size  Used Avail Use% Mounted on
    /dev/sda2      ext4    197G  9.7G  178G   6% /

 Additional information from dmidecode:
   BIOS Acer D09 11/15/2013
   Memory:
    2x    8 GB
    2x Kingston ACR16D3LE1EFG/8G 8 GB 1600 MHz 2 rank

 (End of data from sysinfo program)
```

General Notes

```
 Environment variables set by runspec before the start of the run:
 LD_LIBRARY_PATH = "/usr/cpu2006/libs/32:/usr/cpu2006/libs/64:/usr/cpu2006/sh"

 Binaries compiled on a system with 1x Core i7-860 CPU + 8GB
 memory using RedHat EL 6.4
 Transparent Huge Pages enabled with:
 echo always > /sys/kernel/mm/redhat_transparent_hugepage/enabled
```

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:
     -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
     -opt-mem-layout-trans=3

C++ benchmarks:
     -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch
     -opt-mem-layout-trans=3 -Wl,-z,muldefs -L/sh -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

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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
```

Peak Optimization Flags

C benchmarks:

```
400.perlbench: -xCORE-AVX2(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: -xCORE-AVX2(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: -xCORE-AVX2 -ipo -O3 -no-prec-div

       429.mcf: basepeak = yes

     445.gobmk: -xCORE-AVX2(pass 2) -prof-gen(pass 1) -prof-use(pass 2)
               -ansi-alias -opt-mem-layout-trans=3

    456.hmmer: -xCORE-AVX2 -ipo -O3 -no-prec-div -unroll2 -auto-ilp32

     458.sjeng: -xCORE-AVX2(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: -xCORE-AVX2(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: -xCORE-AVX2(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/sh -lsmartheap

      473.astar: basepeak = yes
```

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Peak Optimization Flags (Continued)

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-ic13-official-linux64.20130716.html
http://www.spec.org/cpu2006/flags/Acer-Platform-Settings-V1.2-revA.20130423.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic13-official-linux64.20130716.xml
http://www.spec.org/cpu2006/flags/Acer-Platform-Settings-V1.2-revA.20130423.xml

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