SPEC® CINT2006 Result
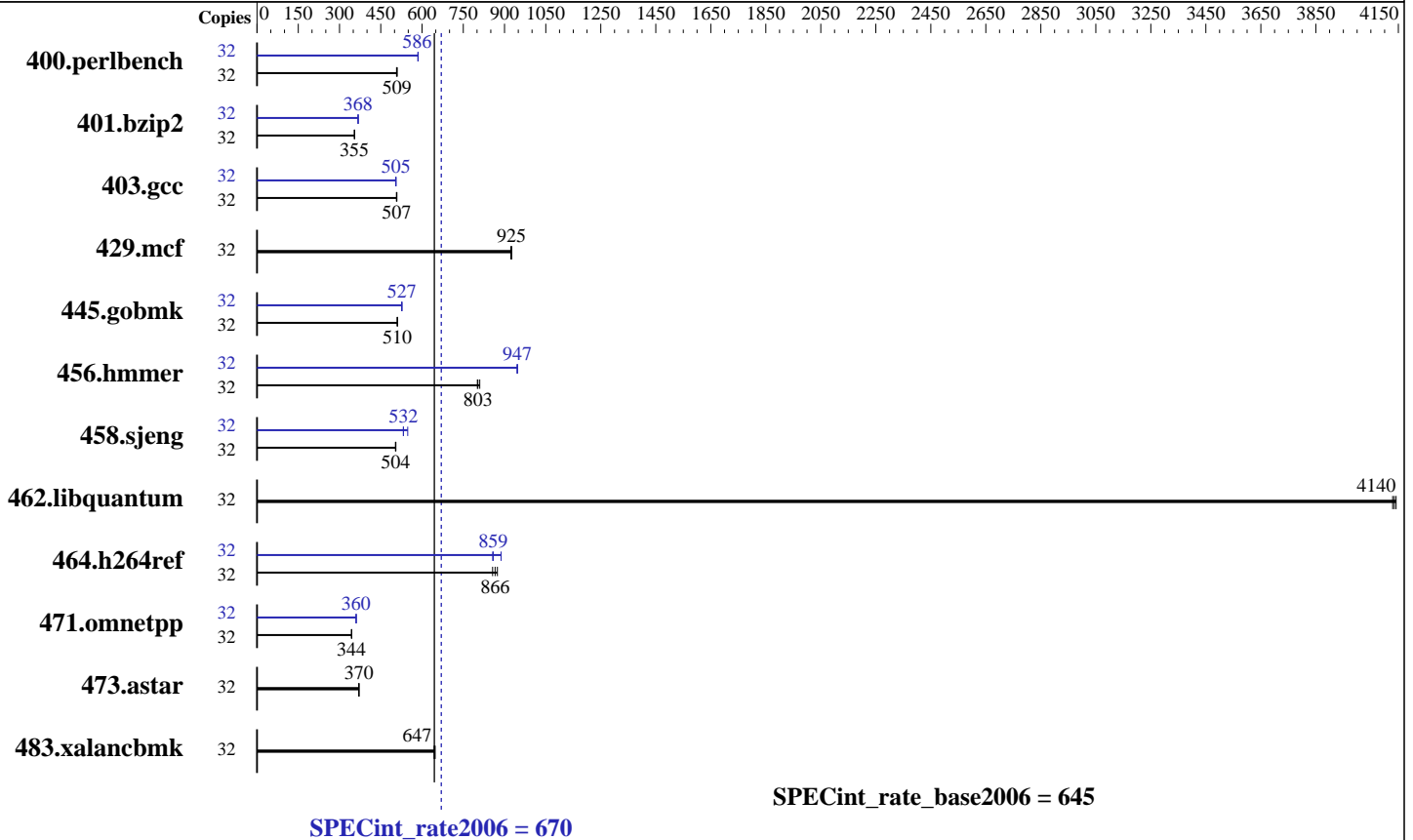Copyright 2006-2014 Standard Performance Evaluation Corporation

Acer Incorporated

Acer AR380 F2 (Xeon E5-2690)

SPECint®_rate2006 =   670

SPECint_rate_base2006 = 645

CPU2006 license: 97
Test sponsor: Acer Incorporated
Tested by: Acer Incorporated

Test date: Sep-2012
Hardware Availability: Jun-2012
Software Availability: Dec-2011

Copies 0 150 300 450 600 750 900 1050 1250 1450 1650 1850 2050 2250 2450 2650 2850 3050 3250 3450 3650 3850 4150

400.perlbench 32 586 32 509

401.bzip2 32 368 32 355

403.gcc 32 505 32 507

429.mcf 32 925

445.gobmk 32 527 32 510

456.hmmer 32 947 32 803

458.sjeng 32 532 32 504

462.libquantum 32 4140

464.h264ref 32 859 32 866

471.omnetpp 32 360 32 344

473.astar 32 370

483.xalancbmk 32 647

SPECint_rate_base2006 = 645

SPECint_rate2006 = 670

Hardware

CPU Name:	Intel Xeon E5-2690
CPU Characteristics:	Intel Turbo Boost Technology up to 3.80 GHz
CPU MHz:	2900
FPU:	Integrated
CPU(s) enabled:	16 cores, 2 chips, 8 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:	20 MB I+D on chip per chip
Other Cache:	None
Memory:	128 GB (16 x 8 GB 2Rx4 PC3L-10600R-9, ECC)
Disk Subsystem:	1 x 600 GB SAS, 10K RPM
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux Server release 6.2 (Santiago) 2.6.32-220.el6.x86_64
Compiler:	C/C++: Version 12.1.0.225 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 V9.01

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Results Table

Benchmark	Copies	Base Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Copies	Peak Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	32	**614**	**509**	614	509	616	507	32	535	585	**534**	**586**	533	586
401.bzip2	32	872	354	**871**	**355**	871	355	32	839	368	**840**	**368**	841	367
403.gcc	32	**508**	**507**	506	509	508	507	32	510	505	511	504	**510**	**505**
429.mcf	32	316	923	**315**	**925**	315	926	32	316	923	**315**	**925**	315	926
445.gobmk	32	657	511	659	510	**658**	**510**	32	638	526	**637**	**527**	637	527
456.hmmer	32	373	801	369	810	**372**	**803**	32	316	946	315	947	**315**	**947**
458.sjeng	32	767	505	769	503	**768**	**504**	32	728	532	707	548	**727**	**532**
462.libquantum	32	160	4140	161	4130	**160**	**4140**	32	160	4140	161	4130	**160**	**4140**
464.h264ref	32	**818**	**866**	810	874	827	857	32	826	857	**824**	**859**	798	887
471.omnetpp	32	**581**	**344**	581	344	582	344	32	555	360	**555**	**360**	554	361
473.astar	32	606	371	606	370	**606**	**370**	32	606	371	606	370	**606**	**370**
483.xalancbmk	32	343	644	341	647	**341**	**647**	32	343	644	341	647	**341**	**647**

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

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 /usr/cpu2006/config/sysinfo.rev6800
    $Rev: 6800 $ $Date:: 2011-10-11 #$ 6f2ebdff5032aaa42e583f96b07f99d3
    running on spec Wed Sep 19 16:19:00 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 E5-2690 0 @ 2.90GHz
          2 "physical id"s (chips)
          32 "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 : 8
          siblings  : 16
```
Continued on next page

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Platform Notes (Continued)

```
     physical 0: cores 0 1 2 3 4 5 6 7
     physical 1: cores 0 1 2 3 4 5 6 7
  cache size : 20480 KB

From /proc/meminfo
   MemTotal:        132269584 kB
   HugePages_Total:         0
   Hugepagesize:         2048 kB

/usr/bin/lsb_release -d
   Red Hat Enterprise Linux Server release 6.2 (Santiago)

From /etc/*release* /etc/*version*
   redhat-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
   system-release: Red Hat Enterprise Linux Server release 6.2 (Santiago)
   system-release-cpe: cpe:/o:redhat:enterprise_linux:6server:ga:server

uname -a:
   Linux spec 2.6.32-220.el6.x86_64 #1 SMP Wed Nov 9 08:03:13 EST 2011 x86_64
   x86_64 x86_64 GNU/Linux

run-level 3 Sep 18 18:41

SPEC is set to: /usr/cpu2006
   Filesystem     Type     Size   Used Avail Use% Mounted on
   /dev/sda1      ext4     424G    63G  341G  16% /

Additional information from dmidecode:
  Memory:
   14x Hynix Semiconducto HMT31GR7CFR4A 8 GB 1333 MHz 1 rank
   2x Hynix Semiconductor HMT31GR7CFR4A- 8 GB 1333 MHz 1 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"

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/redhat_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>
```

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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:
    `-xAVX -ipo -O3 -no-prec-div -opt-prefetch -opt-mem-layout-trans=3`

C++ benchmarks:
    `-xAVX -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`

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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: -xAVX(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: -xAVX(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: -xAVX -ipo -O3 -no-prec-div

         429.mcf: basepeak = yes

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

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

        458.sjeng: -xAVX(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: -xAVX(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: -xAVX(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

        473.astar: basepeak = yes

     483.xalancbmk: basepeak = yes
```

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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`

For questions about this result, please contact the tester.
For other inquiries, please contact webmaster@spec.org.

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