SPEC® CINT2006 Result
Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

Motherboard X11SSi-LN4F
(Intel Xeon E3-1270 v5)

$SPECint®2006 =$ 76.2

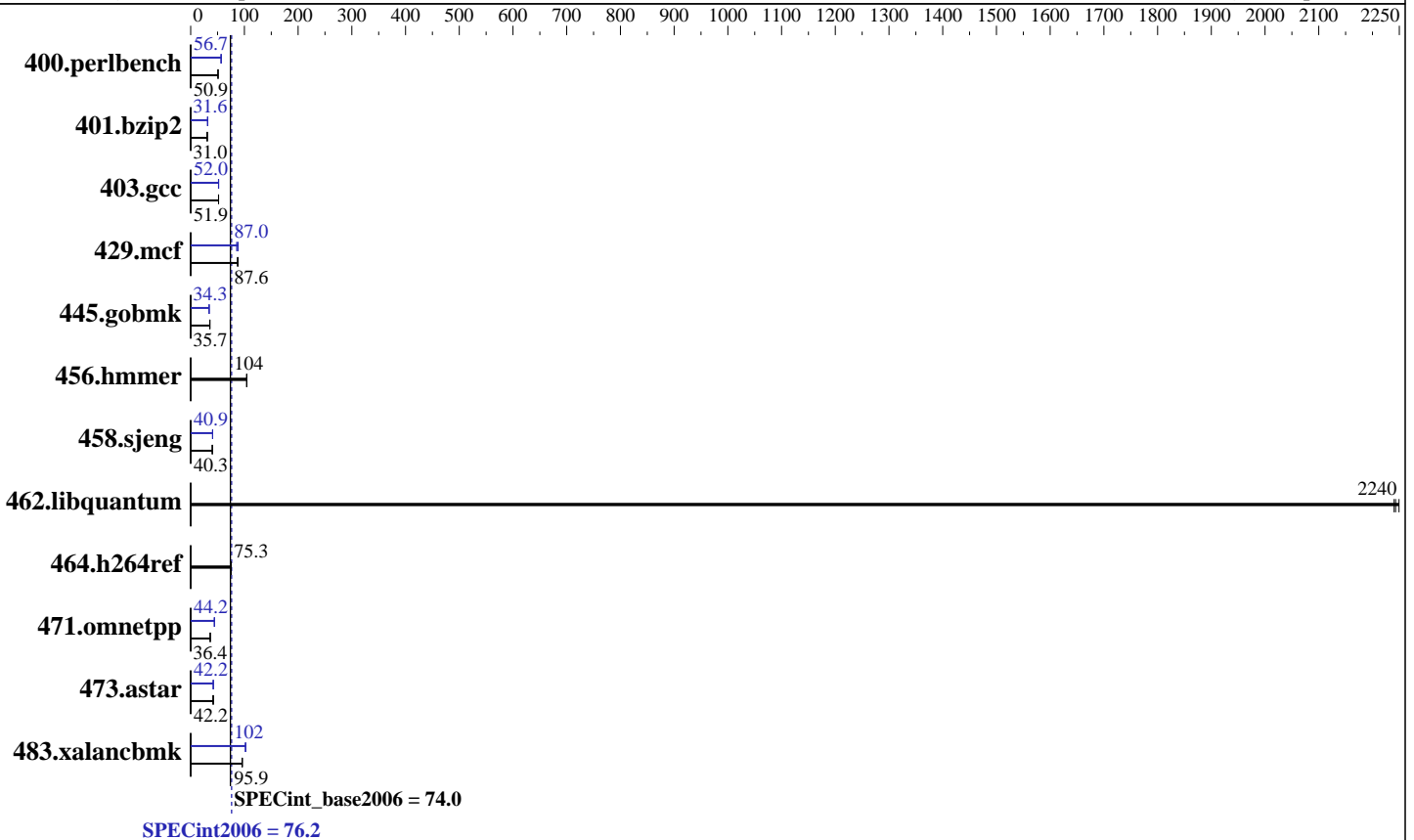$SPECint\_base2006 =$ 74.0

CPU2006 license: 001176	**Test date:** Nov-2015
Test sponsor: Supermicro	**Hardware Availability:** Nov-2015
Tested by: Supermicro	**Software Availability:** Sep-2015

400.perlbench 56.7 / 50.9
401.bzip2 31.6 / 31.0
403.gcc 52.0 / 51.9
429.mcf 87.0 / 87.6
445.gobmk 34.3 / 35.7
456.hmmer 104
458.sjeng 40.9 / 40.3
462.libquantum 2240
464.h264ref 75.3
471.omnetpp 44.2 / 36.4
473.astar 42.2 / 42.2
483.xalancbmk 102 / 95.9

SPECint_base2006 = 74.0

SPECint2006 = 76.2

Hardware

CPU Name:	Intel Xeon E3-1270 v5
CPU Characteristics:	Intel Turbo Boost Technology up to 4.00 GHz
CPU MHz:	3600
FPU:	Integrated
CPU(s) enabled:	4 cores, 1 chip, 4 cores/chip, 2 threads/core
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 PC4-2133P-U)
Disk Subsystem:	1 x 1 TB SATA III, 7200 RPM
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux Server release 7.1, Kernel 3.10.0-229.el7.x86_64
Compiler:	C/C++: Version 16.0.0.101 of Intel C++ Studio XE for Linux
Auto Parallel:	Yes
File System:	xfs
System State:	Run level 3 (multi-user)
Base Pointers:	32/64-bit
Peak Pointers:	32/64-bit
Other Software:	Microquill SmartHeap V10.2

SPEC CINT2006 Result
Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

Motherboard X11SSi-LN4F
(Intel Xeon E3-1270 v5)

SPECint2006 = 76.2

SPECint_base2006 = 74.0

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Test date: Nov-2015
Hardware Availability: Nov-2015
Software Availability: Sep-2015

Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	191	51.1	193	50.7	**192**	**50.9**	173	56.6	172	56.9	**172**	**56.7**
401.bzip2	**311**	**31.0**	318	30.3	311	31.1	306	31.6	**306**	**31.6**	306	31.5
403.gcc	155	51.9	**155**	**51.9**	155	51.8	156	51.7	154	52.1	**155**	**52.0**
429.mcf	105	87.1	104	88.1	**104**	**87.6**	107	85.5	**105**	**87.0**	103	88.5
445.gobmk	**294**	**35.7**	294	35.7	294	35.7	305	34.4	**305**	**34.3**	306	34.3
456.hmmer	**89.4**	**104**	89.4	104	89.3	104	**89.4**	**104**	89.4	104	89.3	104
458.sjeng	**300**	**40.3**	301	40.3	300	40.3	297	40.7	296	40.9	**296**	**40.9**
462.libquantum	**9.24**	**2240**	9.25	2240	9.21	2250	**9.24**	**2240**	9.25	2240	9.21	2250
464.h264ref	**294**	**75.3**	294	75.3	294	75.2	**294**	**75.3**	294	75.3	294	75.2
471.omnetpp	**172**	**36.4**	172	36.3	171	36.5	141	44.3	**141**	**44.2**	142	44.1
473.astar	170	41.4	**166**	**42.2**	166	42.2	168	41.9	**166**	**42.2**	166	42.2
483.xalancbmk	72.2	95.6	**72.0**	**95.9**	71.6	96.4	**67.5**	**102**	67.3	102	67.8	102

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.

Operating System Notes

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

Platform Notes

    As tested, the chassis used was a SuperChassis 813MTQ-350CB.
    The setup also includes a PWS-351-1H power supply, a SNK-P0046P heatsink,
    and 4 FAN-0065L4 cooling fans.
    Sysinfo program /home/cpu2006/config/sysinfo.rev6914
    $Rev: 6914 $ $Date:: 2014-06-25 #$ e3fbb8667b5a285932ceab81e28219e1
    running on localhost.localdomain Sun Nov 15 10:48:11 2015

    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 E3-1270 v5 @ 3.60GHz
          1 "physical id"s (chips)
          8 "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

Supermicro

Motherboard X11SSi-LN4F
(Intel Xeon E3-1270 v5)

SPECint2006 =   76.2

SPECint_base2006 =   74.0

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Test date: Nov-2015
Hardware Availability: Nov-2015
Software Availability: Sep-2015

Platform Notes (Continued)

```
      siblings  : 8
      physical 0: cores 0 1 2 3
   cache size : 8192 KB

 From /proc/meminfo
    MemTotal:       16213268 kB
    HugePages_Total:        0
    Hugepagesize:        2048 kB

 From /etc/*release* /etc/*version*
    os-release:
       NAME="Red Hat Enterprise Linux Server"
       VERSION="7.1 (Maipo)"
       ID="rhel"
       ID_LIKE="fedora"
       VERSION_ID="7.1"
       PRETTY_NAME="Red Hat Enterprise Linux Server 7.1 (Maipo)"
       ANSI_COLOR="0;31"
       CPE_NAME="cpe:/o:redhat:enterprise_linux:7.1:GA:server"
    redhat-release: Red Hat Enterprise Linux Server release 7.1 (Maipo)
    system-release: Red Hat Enterprise Linux Server release 7.1 (Maipo)
    system-release-cpe: cpe:/o:redhat:enterprise_linux:7.1:ga:server

 uname -a:
    Linux localhost.localdomain 3.10.0-229.el7.x86_64 #1 SMP Thu Jan 29 18:37:38
    EST 2015 x86_64 x86_64 x86_64 GNU/Linux

 run-level 3 Nov 14 20:29

 SPEC is set to: /home/cpu2006
    Filesystem            Type  Size  Used Avail Use% Mounted on
    /dev/mapper/rhel-home xfs   873G   31G  843G   4% /home
 Additional information from dmidecode:

    Warning: Use caution when you interpret this section. The 'dmidecode' program
    reads system data which is "intended to allow hardware to be accurately
    determined", but the intent may not be met, as there are frequent changes to
    hardware, firmware, and the "DMTF SMBIOS" standard.

  BIOS American Megatrends Inc. 1.0 10/13/2015
  Memory:
  2x Not Specified Not Specified
  2x Samsung M391A1G43DB0-CPB 8 GB 2 rank 2133 MHz

 (End of data from sysinfo program)
```

General Notes

```
 Environment variables set by runspec before the start of the run:
 KMP_AFFINITY = "granularity=fine,scatter"
 LD_LIBRARY_PATH = "/home/cpu2006/libs/32:/home/cpu2006/libs/64:/home/cpu2006/sh"
```

SPEC CINT2006 Result
Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

Motherboard X11SSi-LN4F
(Intel Xeon E3-1270 v5)

SPECint2006 =   76.2

SPECint_base2006 =   74.0

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Test date: Nov-2015
Hardware Availability: Nov-2015
Software Availability: Sep-2015

General Notes (Continued)

```
OMP_NUM_THREADS = "4"

 Binaries compiled on a system with 1x Intel Core i5-4670K CPU + 32GB
 memory using RedHat EL 7.1
 Transparent Huge Pages enabled with:
 echo always > /sys/kernel/mm/transparent_hugepage/enabled
```

Base Compiler Invocation

C benchmarks:
    icc -m64

C++ benchmarks:
    icpc -m64

Base Portability Flags

        400.perlbench: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX_X64
          401.bzip2: -DSPEC_CPU_LP64
            403.gcc: -DSPEC_CPU_LP64
            429.mcf: -DSPEC_CPU_LP64
          445.gobmk: -DSPEC_CPU_LP64
          456.hmmer: -DSPEC_CPU_LP64
           458.sjeng: -DSPEC_CPU_LP64
      462.libquantum: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX
         464.h264ref: -DSPEC_CPU_LP64
         471.omnetpp: -DSPEC_CPU_LP64
           473.astar: -DSPEC_CPU_LP64
      483.xalancbmk: -DSPEC_CPU_LP64 -DSPEC_CPU_LINUX

Base Optimization Flags

C benchmarks:
    -xCORE-AVX2 -ipo -O3 -no-prec-div -parallel -opt-prefetch -auto-p32

C++ benchmarks:
    -xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch -auto-p32
    -Wl,-z,muldefs -L/sh -lsmartheap64

Base Other Flags

C benchmarks:

Continued on next page

SPEC CINT2006 Result

Supermicro

$SPECint2006 =$ 76.2

$SPECint\_base2006 =$ 74.0

Motherboard X11SSi-LN4F
(Intel Xeon E3-1270 v5)

CPU2006 license: 001176	**Test date:** Nov-2015
Test sponsor: Supermicro	**Hardware Availability:** Nov-2015
Tested by: Supermicro	**Software Availability:** Sep-2015

Base Other Flags (Continued)

403.gcc: `-Dalloca=_alloca`

Peak Compiler Invocation

C benchmarks (except as noted below):
    `icc  -m64`

    400.perlbench: `icc -m32 -L/opt/intel/compilers_and_libraries_2016/linux/compiler/lib/ia32_lin`

    445.gobmk: `icc -m32 -L/opt/intel/compilers_and_libraries_2016/linux/compiler/lib/ia32_lin`

C++ benchmarks (except as noted below):
    `icpc -m32 -L/opt/intel/compilers_and_libraries_2016/linux/compiler/lib/ia32_lin`

    473.astar: `icpc -m64`

Peak Portability Flags

400.perlbench: `-D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX_IA32`
401.bzip2: `-DSPEC_CPU_LP64`
403.gcc: `-DSPEC_CPU_LP64`
429.mcf: `-DSPEC_CPU_LP64`
445.gobmk: `-D_FILE_OFFSET_BITS=64`
456.hmmer: `-DSPEC_CPU_LP64`
458.sjeng: `-DSPEC_CPU_LP64`
462.libquantum: `-DSPEC_CPU_LP64 -DSPEC_CPU_LINUX`
464.h264ref: `-DSPEC_CPU_LP64`
471.omnetpp: `-D_FILE_OFFSET_BITS=64`
473.astar: `-DSPEC_CPU_LP64`
483.xalancbmk: `-D_FILE_OFFSET_BITS=64 -DSPEC_CPU_LINUX`

Peak Optimization Flags

C benchmarks:

400.perlbench: `-xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)`
`-ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)`
`-par-num-threads=1(pass 1) -prof-use(pass 2) -opt-prefetch`
`-ansi-alias`

401.bzip2: `-xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)`
`-ipo(pass 2) -O3(pass 2) -no-prec-div`
`-par-num-threads=1(pass 1) -prof-use(pass 2) -auto-ilp32`
`-opt-prefetch -ansi-alias`

SPEC CINT2006 Result
Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

Motherboard X11SSi-LN4F
(Intel Xeon E3-1270 v5)

SPECint2006 =   76.2

SPECint_base2006 =   74.0

CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

Test date: Nov-2015
Hardware Availability: Nov-2015
Software Availability: Sep-2015

Peak Optimization Flags (Continued)

403.gcc: `-xCORE-AVX2 -ipo -O3 -no-prec-div -inline-calloc`
`-opt-malloc-options=3 -auto-ilp32`

429.mcf: `-xCORE-AVX2 -ipo -O3 -no-prec-div -parallel`
`-opt-prefetch -auto-p32`

445.gobmk: `-xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)`
`-prof-use(pass 2) -par-num-threads=1(pass 1) -ansi-alias`

456.hmmer: `basepeak = yes`

458.sjeng: `-xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)`
`-ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)`
`-par-num-threads=1(pass 1) -prof-use(pass 2) -unroll4`

462.libquantum: `basepeak = yes`

464.h264ref: `basepeak = yes`

C++ benchmarks:

471.omnetpp: `-xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)`
`-ipo(pass 2) -O3(pass 2) -no-prec-div(pass 2)`
`-par-num-threads=1(pass 1) -prof-use(pass 2)`
`-opt-ra-region-strategy=block          -ansi-alias`
`-Wl,-z,muldefs -L/sh -lsmartheap`

473.astar: `-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch`
`-auto-p32 -Wl,-z,muldefs -L/sh -lsmartheap64`

483.xalancbmk: `-xCORE-AVX2 -ipo -O3 -no-prec-div -opt-prefetch`
`-ansi-alias -Wl,-z,muldefs -L/sh -lsmartheap`

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-ic16.0-official-linux64.html
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revH.html

You can also download the XML flags sources by saving the following links:
http://www.spec.org/cpu2006/flags/Intel-ic16.0-official-linux64.xml
http://www.spec.org/cpu2006/flags/Supermicro-Platform-Settings-V1.2-revH.xml

SPEC CINT2006 Result

Copyright 2006-2015 Standard Performance Evaluation Corporation

Supermicro

Motherboard X11SSi-LN4F
(Intel Xeon E3-1270 v5)

SPECint2006 =   76.2

SPECint_base2006 =   74.0

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

Tested with SPEC CPU2006 v1.2.
Report generated on Tue Dec 1 17:42:44 2015 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 1 December 2015.