SPEC® CINT2006 Result
Copyright 2006-2016 Standard Performance Evaluation Corporation

Supermicro

SuperServer 5019S-MT
(X11SSH-TF , Intel Xeon E3-1240L v5)

$SPECint^{®}2006 =$ 62.7

$SPECint\_base2006 =$ 61.0

Benchmark results (scale 0 to 1900):

Benchmark	Peak	Base
400.perlbench	45.2	41.5
401.bzip2	25.3	25.0
403.gcc	43.7	43.5
429.mcf	73.8	71.7
445.gobmk	27.6	28.8
456.hmmer		83.5
458.sjeng	33.3	32.9
462.libquantum		1890
464.h264ref		59.8
471.omnetpp	39.8	33.0
473.astar	34.4	34.4
483.xalancbmk	83.8	80.1

SPECint_base2006 = 61.0
SPECint2006 = 62.7

Hardware

CPU Name:	Intel Xeon E3-1240L v5
CPU Characteristics:	Intel Turbo Boost Technology up to 3.20 GHz
CPU MHz:	2100
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 PC4-2133P-U)
Disk Subsystem:	1 x 400 GB SATA III SSD
Other Hardware:	None

Software

Operating System:	Red Hat Enterprise Linux Server release 7.2, Kernel 3.10.0-327.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 2006-2016 Standard Performance Evaluation Corporation

Supermicro

SuperServer 5019S-MT
(X11SSH-TF , Intel Xeon E3-1240L v5)

SPECint2006 = 62.7
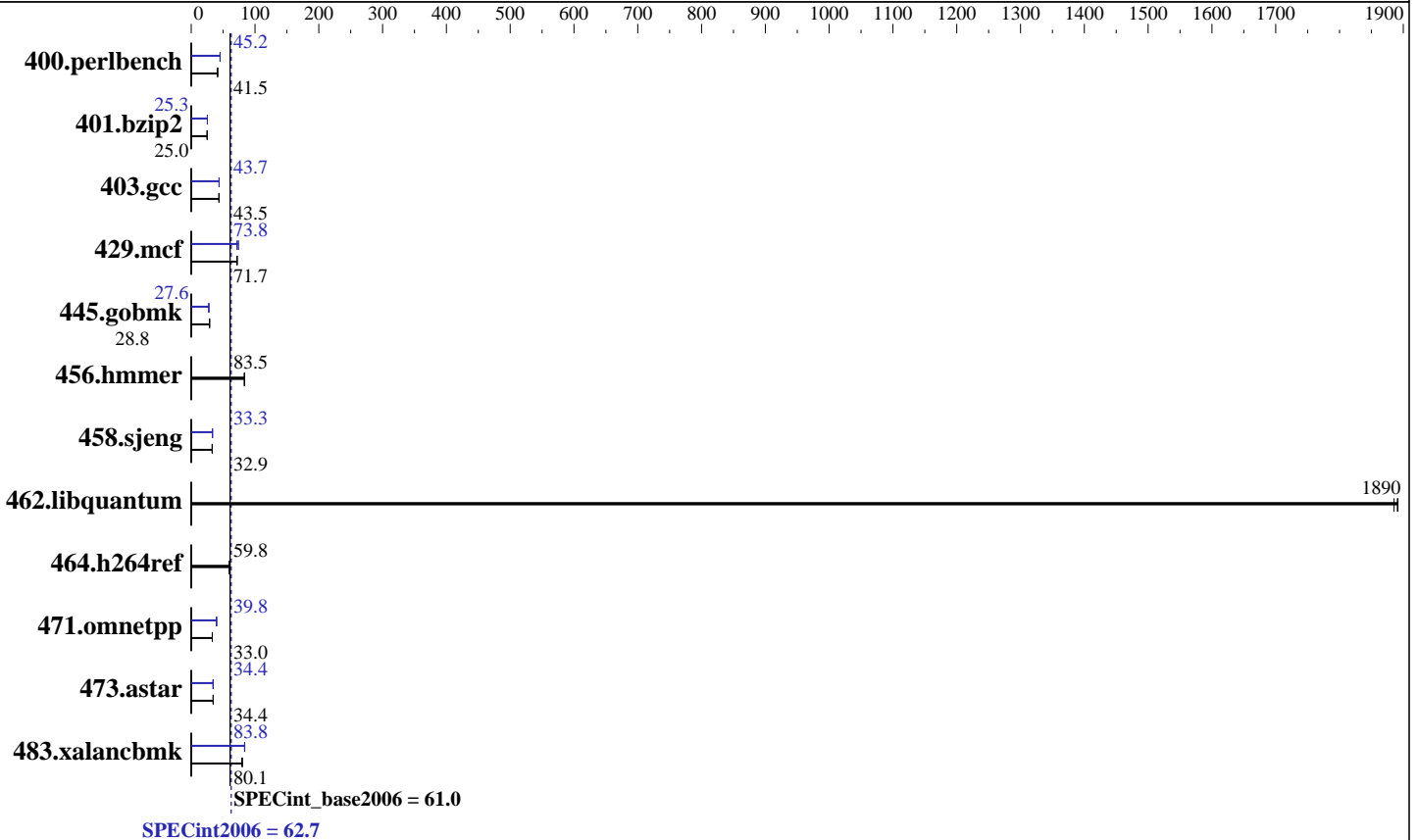
SPECint_base2006 = 61.0

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

Test date: Jan-2016
Hardware Availability: Oct-2015
Software Availability: Sep-2015

Results Table

Benchmark	Base Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Peak Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	235	41.5	238	41.1	**235**	**41.5**	216	45.2	215	45.4	**216**	**45.2**
401.bzip2	385	25.1	**386**	**25.0**	387	24.9	381	25.3	**381**	**25.3**	381	25.3
403.gcc	185	43.6	185	43.5	**185**	**43.5**	184	43.7	**184**	**43.7**	184	43.7
429.mcf	126	72.3	**127**	**71.7**	128	71.4	123	73.9	**124**	**73.8**	127	71.6
445.gobmk	**365**	**28.8**	365	28.8	365	28.7	**380**	**27.6**	380	27.6	380	27.6
456.hmmer	112	83.1	111	83.7	**112**	**83.5**	112	83.1	111	83.7	**112**	**83.5**
458.sjeng	368	32.9	368	32.9	**368**	**32.9**	363	33.3	**363**	**33.3**	363	33.3
462.libquantum	11.0	1890	11.0	1890	**11.0**	**1890**	11.0	1890	11.0	1890	**11.0**	**1890**
464.h264ref	370	59.8	**370**	**59.8**	369	59.9	370	59.8	**370**	**59.8**	369	59.9
471.omnetpp	**189**	**33.0**	189	33.1	190	33.0	156	40.1	**157**	**39.8**	159	39.2
473.astar	204	34.5	**204**	**34.4**	204	34.3	205	34.3	204	34.4	**204**	**34.4**
483.xalancbmk	86.8	79.5	86.2	80.1	**86.2**	**80.1**	**82.4**	**83.8**	82.2	83.9	82.5	83.6

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

```
BIOS Settings:
Hyper-threading = Disabled
Sysinfo program /home/cpu2006/config/sysinfo.rev6914
$Rev: 6914 $ $Date:: 2014-06-25 #$ e3fbb8667b5a285932ceab81e28219e1
running on localhost.localdomain Tue Jan  5 01:48:43 2016

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 E3-1240L v5 @ 2.10GHz
      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
```

SPEC CINT2006 Result
Copyright 2006-2016 Standard Performance Evaluation Corporation

Supermicro

SuperServer 5019S-MT
(X11SSH-TF , Intel Xeon E3-1240L v5)

$SPECint2006 =$ 62.7

$SPECint\_base2006 =$ 61.0

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

Test date: Jan-2016
Hardware Availability: Oct-2015
Software Availability: Sep-2015

Platform Notes (Continued)

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

  From /proc/meminfo
    MemTotal:       16088400 kB
    HugePages_Total:        0
    Hugepagesize:        2048 kB

  From /etc/*release* /etc/*version*
    os-release:
        NAME="Red Hat Enterprise Linux Server"
        VERSION="7.2 (Maipo)"
        ID="rhel"
        ID_LIKE="fedora"
        VERSION_ID="7.2"
        PRETTY_NAME="Red Hat Enterprise Linux Server 7.2 (Maipo)"
        ANSI_COLOR="0;31"
        CPE_NAME="cpe:/o:redhat:enterprise_linux:7.2:GA:server"
    redhat-release: Red Hat Enterprise Linux Server release 7.2 (Maipo)
    system-release: Red Hat Enterprise Linux Server release 7.2 (Maipo)
    system-release-cpe: cpe:/o:redhat:enterprise_linux:7.2:ga:server

  uname -a:
    Linux localhost.localdomain 3.10.0-327.el7.x86_64 #1 SMP Thu Oct 29 17:29:29
    EDT 2015 x86_64 x86_64 x86_64 GNU/Linux

  run-level 3 Jan 5 01:44

  SPEC is set to: /home/cpu2006
    Filesystem              Type  Size  Used Avail Use% Mounted on
    /dev/mapper/rhel-root xfs   280G   26G  254G  10% /
  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. T20151229190512 12/29/2015
    Memory:
    2x Micron 16ATF1G64AZ-2G1A2 8 GB 2 rank 2133 MHz
    2x Not Specified Not Specified

  (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"
  OMP_NUM_THREADS = "4"
```

SPEC CINT2006 Result
Copyright 2006-2016 Standard Performance Evaluation Corporation

Supermicro

SuperServer 5019S-MT
(X11SSH-TF , Intel Xeon E3-1240L v5)

SPECint2006 =   62.7

SPECint_base2006 =   61.0

General Notes (Continued)

```
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:

```
403.gcc: -Dalloca=_alloca
```

SPEC CINT2006 Result

Supermicro

SuperServer 5019S-MT
(X11SSH-TF , Intel Xeon E3-1240L v5)

$SPECint2006 = $　　　62.7

$SPECint_base2006 = $　　61.0

CPU2006 license: 001176		**Test date:**	Jan-2016
Test sponsor:	Supermicro	**Hardware Availability:**	Oct-2015
Tested by:	Supermicro	**Software Availability:**	Sep-2015

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

        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
```

Continued on next page

Supermicro

SuperServer 5019S-MT
(X11SSH-TF , Intel Xeon E3-1240L v5)

$SPECint2006 = $ 62.7

$SPECint_base2006 = $ 61.0

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

Test date: Jan-2016
Hardware Availability: Oct-2015
Software Availability: Sep-2015

Peak Optimization Flags (Continued)

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 2006-2016 Standard Performance Evaluation Corporation

Supermicro

SuperServer 5019S-MT
(X11SSH-TF , Intel Xeon E3-1240L v5)

SPECint2006 = 62.7

SPECint_base2006 = 61.0

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

Test date: Jan-2016
Hardware Availability: Oct-2015
Software Availability: Sep-2015

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.

Tested with SPEC CPU2006 v1.2.
Report generated on Thu Jun 30 13:14:00 2016 by SPEC CPU2006 PS/PDF formatter v6932.
Originally published on 19 April 2016.