



# SPEC® CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 6018TR-T  
(X10DRT-L, Intel Xeon E5-2618L v4)

SPECint®2006 = 64.0

SPECint\_base2006 = 60.7

CPU2006 license: 001176

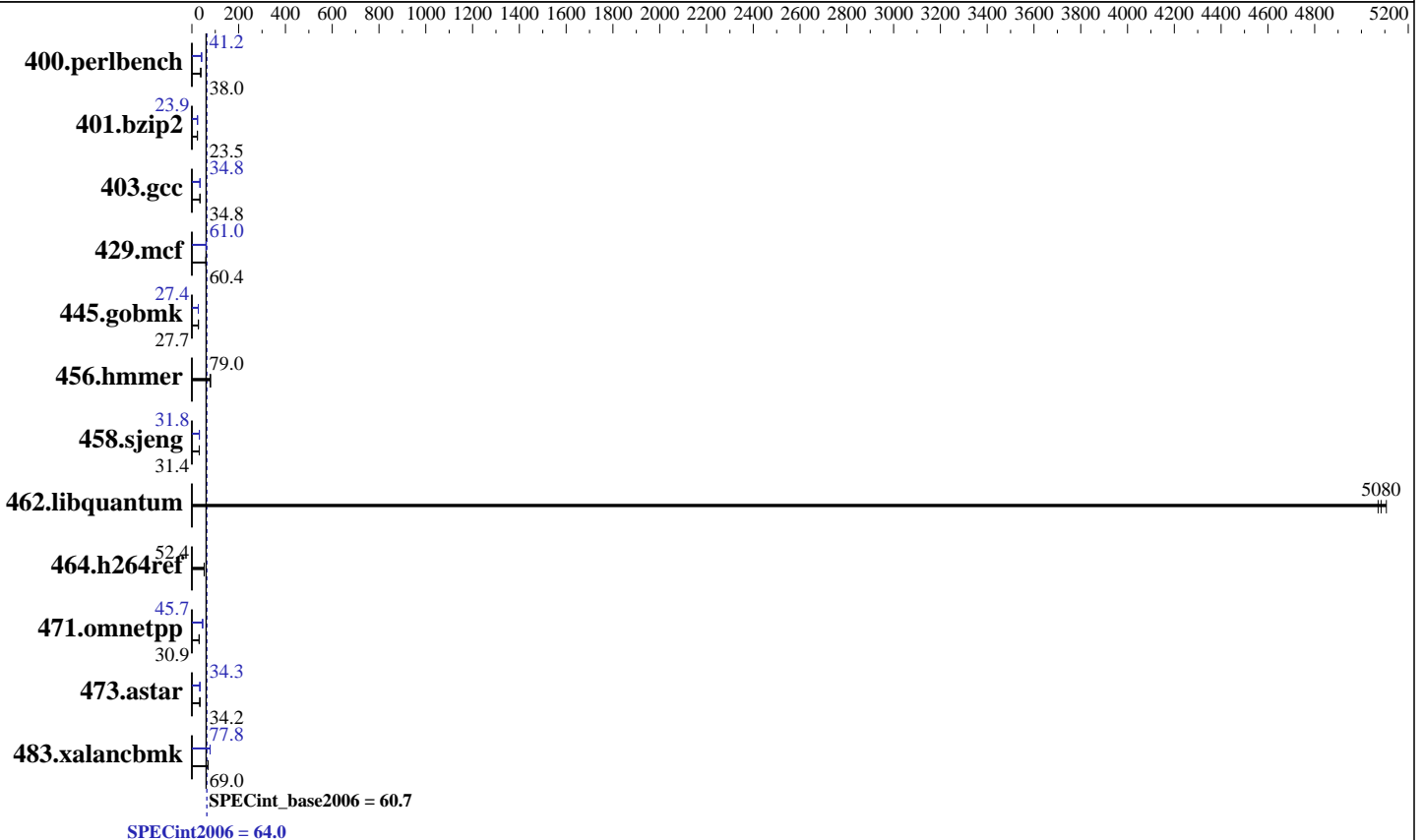
Test sponsor: Supermicro

Tested by: Supermicro

Test date: May-2016

Hardware Availability: Mar-2016

Software Availability: Sep-2015



### Hardware

CPU Name: Intel Xeon E5-2618L v4  
 CPU Characteristics: Intel Turbo Boost Technology up to 3.20 GHz  
 CPU MHz: 2200  
 FPU: Integrated  
 CPU(s) enabled: 20 cores, 2 chips, 10 cores/chip  
 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: 25 MB I+D on chip per chip  
 Other Cache: None  
 Memory: 256 GB (8 x 32 GB 2Rx4 PC4-2400T-R, running at 2133 MHz)  
 Disk Subsystem: 1 x 400 GB SATA III SSD  
 Other Hardware: None

### Software

Operating System: SUSE Linux Enterprise Server 12 SP1, Kernel 3.12.49-11-default  
 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 6018TR-T  
(X10DRT-L, Intel Xeon E5-2618L v4)

SPECint2006 = **64.0**

SPECint\_base2006 = **60.7**

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

Test date: May-2016  
Hardware Availability: Mar-2016  
Software Availability: Sep-2015

## Results Table

Benchmark	Base						Peak					
	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
400.perlbench	257	38.0	258	37.9	<b><u>257</u></b>	<b><u>38.0</u></b>	237	41.2	237	41.2	<b><u>237</u></b>	<b><u>41.2</u></b>
401.bzip2	410	23.6	<b><u>410</u></b>	<b><u>23.5</u></b>	412	23.4	404	23.9	404	23.9	<b><u>404</u></b>	<b><u>23.9</u></b>
403.gcc	<b><u>231</u></b>	<b><u>34.8</u></b>	231	34.8	231	34.8	231	34.8	232	34.8	<b><u>232</u></b>	<b><u>34.8</u></b>
429.mcf	150	60.8	<b><u>151</u></b>	<b><u>60.4</u></b>	152	60.1	149	61.3	<b><u>149</u></b>	<b><u>61.0</u></b>	150	61.0
445.gobmk	<b><u>378</u></b>	<b><u>27.7</u></b>	378	27.7	378	27.7	<b><u>382</u></b>	<b><u>27.4</u></b>	383	27.4	382	27.4
456.hammer	118	79.1	<b><u>118</u></b>	<b><u>79.0</u></b>	118	78.9	118	79.1	<b><u>118</u></b>	<b><u>79.0</u></b>	118	78.9
458.sjeng	<b><u>385</u></b>	<b><u>31.4</u></b>	385	31.4	385	31.5	380	31.8	<b><u>380</u></b>	<b><u>31.8</u></b>	380	31.8
462.libquantum	4.09	5070	<b><u>4.08</u></b>	<b><u>5080</u></b>	4.06	5110	4.09	5070	<b><u>4.08</u></b>	<b><u>5080</u></b>	4.06	5110
464.h264ref	<b><u>422</u></b>	<b><u>52.4</u></b>	420	52.7	422	52.4	<b><u>422</u></b>	<b><u>52.4</u></b>	420	52.7	422	52.4
471.omnetpp	<b><u>202</u></b>	<b><u>30.9</u></b>	204	30.7	197	31.7	<b><u>137</u></b>	<b><u>45.7</u></b>	137	45.6	136	45.8
473.astar	206	34.1	205	34.2	<b><u>205</u></b>	<b><u>34.2</u></b>	<b><u>205</u></b>	<b><u>34.3</u></b>	205	34.3	206	34.1
483.xalancbmk	100	68.9	99.8	69.1	<b><u>100</u></b>	<b><u>69.0</u></b>	88.4	78.1	88.7	77.8	<b><u>88.6</u></b>	<b><u>77.8</u></b>

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:

Early Snoop = Disable

Hyper-Threading (ALL) = Disabled

Sysinfo program /home/cpu2006\_ic16/config/sysinfo.rev6914

\$Rev: 6914 \$ \$Date:: 2014-06-25 #\$ e3fbb8667b5a285932ceab81e28219e1

running on linux-hp47 Wed May 11 17:01:47 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 E5-2618L v4 @ 2.20GHz

2 "physical id"s (chips)

20 "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 : 10

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 6018TR-T  
(X10DRT-L, Intel Xeon E5-2618L v4)

SPECint2006 = 64.0

SPECint\_base2006 = 60.7

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

**Test date:** May-2016  
**Hardware Availability:** Mar-2016  
**Software Availability:** Sep-2015

### Platform Notes (Continued)

```
siblings : 10
physical 0: cores 0 1 2 3 4 8 9 10 11 12
physical 1: cores 0 1 2 3 4 8 9 10 11 12
cache size : 25600 KB
```

```
From /proc/meminfo
MemTotal:          264381112 kB
HugePages_Total:   0
Hugepagesize:      2048 kB
```

```
From /etc/*release* /etc/*version*
SuSE-release:
  SUSE Linux Enterprise Server 12 (x86_64)
  VERSION = 12
  PATCHLEVEL = 1
  # This file is deprecated and will be removed in a future service pack or
  # release.
  # Please check /etc/os-release for details about this release.
os-release:
  NAME="SLES"
  VERSION="12-SP1"
  VERSION_ID="12.1"
  PRETTY_NAME="SUSE Linux Enterprise Server 12 SP1"
  ID="sles"
  ANSI_COLOR="0;32"
  CPE_NAME="cpe:/o:suse:sles:12:sp1"
```

```
uname -a:
Linux linux-hp47 3.12.49-11-default #1 SMP Wed Nov 11 20:52:43 UTC 2015
(8d714a0) x86_64 x86_64 x86_64 GNU/Linux
```

```
run-level 3 May 11 16:59
```

```
SPEC is set to: /home/cpu2006_ic16
Filesystem      Type  Size Used Avail Use% Mounted on
/dev/sdal        btrfs 373G 140G 233G  38% /
```

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. 2.0 12/17/2015

Memory:  
8x Micron 36ASF4G72PZ-2G3A1 32 GB 2 rank 2400 MHz, configured at 2133 MHz

(End of data from sysinfo program)



# SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 6018TR-T  
(X10DRT-L, Intel Xeon E5-2618L v4)

SPECint2006 = 64.0

SPECint\_base2006 = 60.7

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

**Test date:** May-2016  
**Hardware Availability:** Mar-2016  
**Software Availability:** Sep-2015

## General Notes

Environment variables set by runspec before the start of the run:

KMP\_AFFINITY = "granularity=fine,scatter"

LD\_LIBRARY\_PATH = "/home/cpu2006\_ic16/libs/32:/home/cpu2006\_ic16/libs/64:/home/cpu2006\_ic16/sh"

OMP\_NUM\_THREADS = "20"

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.hmmmer: -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



# SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 6018TR-T  
(X10DRT-L, Intel Xeon E5-2618L v4)

SPECint2006 = 64.0

SPECint\_base2006 = 60.7

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

Test date: May-2016  
Hardware Availability: Mar-2016  
Software Availability: Sep-2015

## Base Other Flags

C benchmarks:

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.hmmmer: -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

Continued on next page



# SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 6018TR-T  
(X10DRT-L, Intel Xeon E5-2618L v4)

**SPECint2006 = 64.0**

**SPECint\_base2006 = 60.7**

**CPU2006 license:** 001176

**Test sponsor:** Supermicro

**Tested by:** Supermicro

**Test date:** May-2016

**Hardware Availability:** Mar-2016

**Software Availability:** Sep-2015

## Peak Optimization Flags (Continued)

401.bzip2 (continued):

`-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`

445.gobmk: `-xCORE-AVX2(pass 2) -prof-gen:threadsafe(pass 1)`

`-prof-use(pass 2) -par-num-threads=1(pass 1) -ansi-alias`

456.hmmcr: `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>



# SPEC CINT2006 Result

Copyright 2006-2016 Standard Performance Evaluation Corporation

## Supermicro

SuperServer 6018TR-T  
(X10DRT-L , Intel Xeon E5-2618L v4)

**SPECint2006 = 64.0**

**SPECint\_base2006 = 60.7**

**CPU2006 license:** 001176

**Test sponsor:** Supermicro

**Tested by:** Supermicro

**Test date:** May-2016

**Hardware Availability:** Mar-2016

**Software Availability:** Sep-2015

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 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](mailto:webmaster@spec.org).

Tested with SPEC CPU2006 v1.2.  
Report generated on Wed Jun 1 19:10:38 2016 by SPEC CPU2006 PS/PDF formatter v6932.  
Originally published on 1 June 2016.