Supermicro
SuperWorkstation 5039A-iL
(X11SAE, Intel Xeon E3-1230 v5)

SPECMINT® 2006 = 71.5
SPECMINT_base2006 = 69.5

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

Hardware

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<tr>
<td>483.xalancbmk</td>
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SPECMINT® 2006 = 71.5

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

CPU Name: Intel Xeon E3-1230 v5
CPU Characteristics: Intel Turbo Boost Technology up to 3.80 GHz
CPU MHz: 3400
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: 64 GB (4 x 16 GB 2Rx8 PC4-2133P-E)
Disk Subsystem: 1 x 1000 GB SATA III, 7200 RPM
Other Hardware: None
Supermicro
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SPECint2006 = 71.5
SPECint_base2006 = 69.5

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

Test date: Dec-2015
Hardware Availability: Oct-2015
Software Availability: Sep-2015

### Results Table

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<td>72.6</td>
<td>95.0</td>
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</tbody>
</table>

**Peak**

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 $ $Date:: 2014-06-25 #$ e3fbb8667b5a285932ceab81e8219e1
running on localhost.localdomain Tue Dec 29 21:14:25 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 E3-1230 v5 @ 3.40GHz
  - 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

Continued on next page
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cpu2006 license: 001176
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Platform Notes (Continued)

physical 0: cores 0 1 2 3

From /proc/meminfo
MemTotal: 65622656 kB

From /etc/*release*/etc/*version*
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)

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 Dec 29 21:03
SPEC is set to: /home/cpu2006

Filesystem Type Size Used Avail Use% Mounted on
/dev/mapper/rhel-home xfs 850G 3.4G 846G 1% /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. 1.0a 12/01/2015
Memory:
4x Samsung M391A2K43BB1-CPB 16 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"
OMP_NUM_THREADS = "4"

Continued on next page
SPEC CINT2006 Result

Supermicro
SuperWorkstation 5039A-iL
(X11SAE, Intel Xeon E3-1230 v5)

| SPECint2006 = | 71.5 |
| SPECint_base2006 = | 69.5 |

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

Test date: Dec-2015
Hardware Availability: Oct-2015
Software Availability: Sep-2015

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/transient_hugepage/enabled

Base Compiler Invocation

C benchmarks:
	icc -m64

C++ benchmarks:
	icpc -m64

Base Portability Flags

- DSPEC_CPU_LP64
- DSPEC_CPU_LINUX_X64

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**  
SuperWorkstation 5039A-iL  
(X11SAE , Intel Xeon E3-1230 v5)  

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**CPU2006 license:** 001176  
**Test date:** Dec-2015  
**Test sponsor:** Supermicro  
**Tested by:** Supermicro  

**Hardware Availability:** Oct-2015  
**Software Availability:** Sep-2015

---

## Peak Compiler Invocation

C benchmarks (except as noted below):

```plaintext
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):

```plaintext
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:

```plaintext
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
```

```plaintext
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
```

```plaintext
403.gcc:  -xCORE-AVX2  -ipo  -o3  -no-prec-div  -inline-calloc  
-opt-malloc-options=3  -auto-ilp32
```

```plaintext
429.mcf:  -xCORE-AVX2  -ipo  -o3  -no-prec-div  -parallel  
-opt-prefetch  -auto-p32
```

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Supermicro
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SPECint2006 = 71.5
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CPU2006 license: 001176
Test sponsor: Supermicro
Tested by: Supermicro

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

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

**Supermicro**

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