SPEC® OMPG2012 Result

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Dell

(Test Sponsor: University of Delaware)

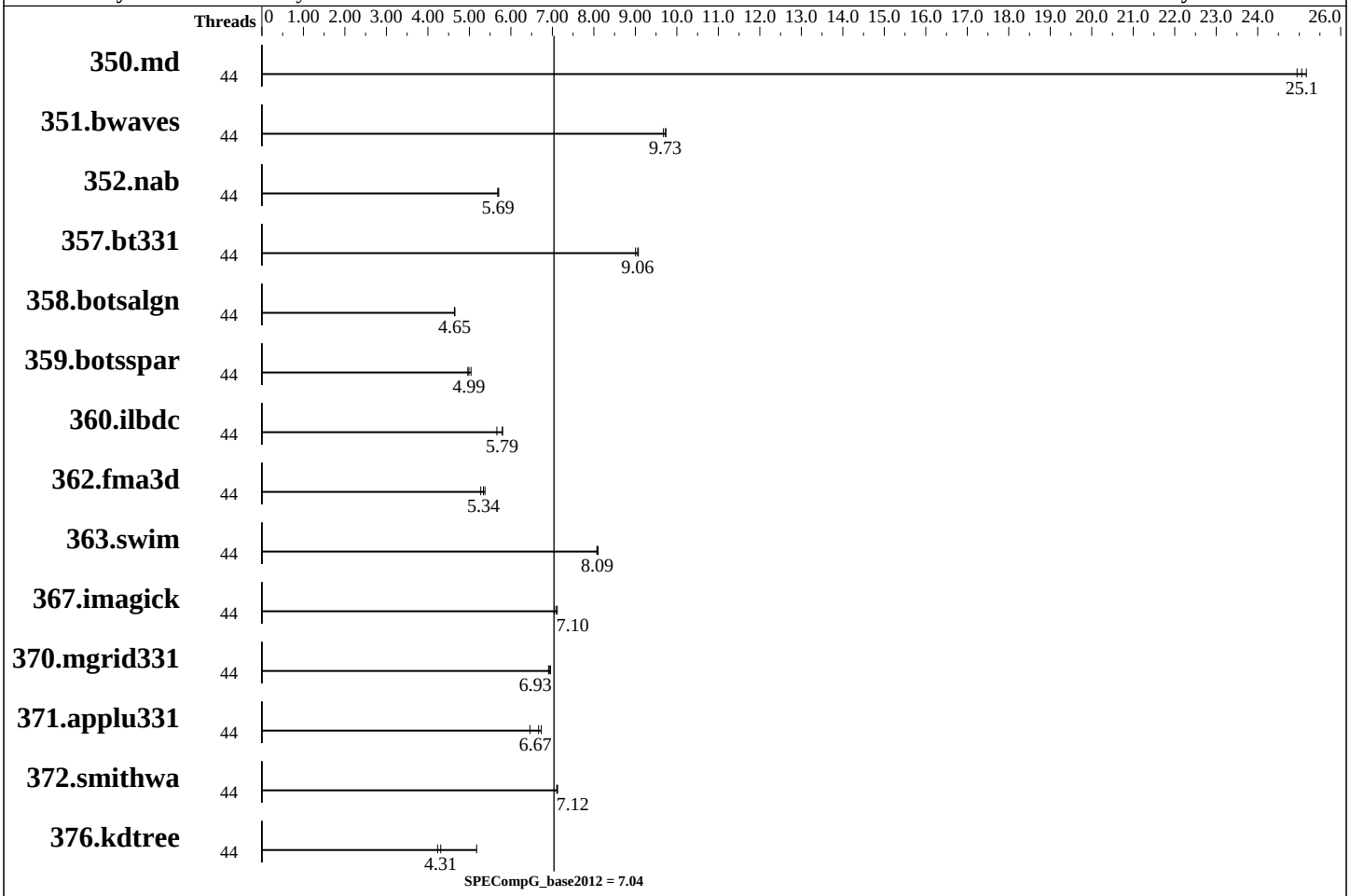
Dell M630 Blade (Intel Xeon E5-2680 v3)

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 7.04

OMP2012 license: 056A
Test sponsor: University of Delaware
Tested by: University of Delaware

Test date: Sep-2018
Hardware Availability: Jun-2018
Software Availability: Jun-2018



Hardware

CPU Name:	Dual Intel Xeon E5-2680 v3
CPU Characteristics:	Intel Turbo Boost Technology off, Hyper-Threading on
CPU MHz:	2500
CPU MHz Maximum:	3300
FPU:	Integrated
CPU(s) enabled:	24 cores, 2 chips, 12 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:	30 MB I+D on chip per chip
Other Cache:	None
Memory:	128 GB (16 x 8 GB 2Rx4 PC4-2133-R)
Disk Subsystem:	400GB (SATA Mix Use MLC 6Gbps 2.5in Hot-plug Drive,13G (400-AEIX) dual SSDs, RAID-1)
Other Hardware:	None

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Software

Operating System:	CentOS Linux release 7.5.1804 (Core) 3.10.0-862.11.6.el7.x86_64
Compiler:	C/C++/Fortran: Version 18.4 of PGI Community Edition
Auto Parallel:	No
File System:	XFS
System State:	Run level 3 (multi-user)
Base Pointers:	64-bit
Peak Pointers:	Not Applicable
Other Software:	None

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Base Threads Run: 44
Minimum Peak Threads: --
Maximum Peak Threads: --

Results Table

Benchmark	Base							Peak						
	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio	Threads	Seconds	Ratio	Seconds	Ratio	Seconds	Ratio
350.md	44	**185**	**25.1**	186	24.9	184	25.2							
351.bwaves	44	**466**	**9.73**	465	9.74	468	9.68							
352.nab	44	**683**	**5.69**	684	5.69	682	5.71							
357.bt331	44	526	9.01	522	9.07	**523**	**9.06**							
358.botsalgn	44	936	4.65	**936**	**4.65**	938	4.64							
359.botsspar	44	**1052**	**4.99**	1042	5.04	1058	4.96							
360.ilbdc	44	**615**	**5.79**	629	5.66	614	5.80							
362.fma3d	44	720	5.27	**712**	**5.34**	707	5.38							
363.swim	44	561	8.07	**560**	**8.09**	559	8.10							
367.imagick	44	997	7.05	987	7.12	**991**	**7.10**							
370.mgrid331	44	**638**	**6.93**	640	6.91	635	6.96							
371.applu331	44	900	6.73	938	6.46	**909**	**6.67**							
372.smithwa	44	752	7.12	**753**	**7.12**	754	7.10							
376.kdtree	44	**1044**	**4.31**	1063	4.23	870	5.18							

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

Platform Notes

```
Sysinfo program /home/huberth/SPEC_OMP2012v1.1/Docs/sysinfo
Revision 563 of 2016-06-10 (097295389cf6073d8c3b03fa376740a5)
running on r01c2b04 Fri Sep 14 16:57:00 2018

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/omp2012/Docs/config.html#sysinfo

From /proc/cpuinfo
   model name : Intel(R) Xeon(R) CPU E5-2680 v3 @ 2.50GHz
      2 "physical id"s (chips)
      48 "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 : 12
      siblings  : 24
      physical 0: cores 0 1 2 3 4 5 8 9 10 11 12 13
      physical 1: cores 0 1 2 3 4 5 8 9 10 11 12 13
   cache size : 30720 KB
```

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Platform Notes (Continued)

```
From /proc/meminfo
   MemTotal:       131612388 kB
   HugePages_Total:       0
   Hugepagesize:       2048 kB

/usr/bin/lsb_release -d
   CentOS Linux release 7.5.1804 (Core)

From /etc/*release* /etc/*version*
   centos-release: CentOS Linux release 7.5.1804 (Core)
   centos-release-upstream: Derived from Red Hat Enterprise Linux 7.5 (Source)
   os-release:
      NAME="CentOS Linux"
      VERSION="7 (Core)"
      ID="centos"
      ID_LIKE="rhel fedora"
      VERSION_ID="7"
      PRETTY_NAME="CentOS Linux 7 (Core)"
      ANSI_COLOR="0;31"
      CPE_NAME="cpe:/o:centos:centos:7"
   redhat-release: CentOS Linux release 7.5.1804 (Core)
   system-release: CentOS Linux release 7.5.1804 (Core)
   system-release-cpe: cpe:/o:centos:centos:7

uname -a:
   Linux r01c2b04 3.10.0-862.11.6.el7.x86_64 #1 SMP Tue Aug 14 21:49:04 UTC 2018
   x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Sep 14 16:12

SPEC is set to: /home/huberth/SPEC_OMP2012v1.1
   Filesystem                     Type  Size  Used Avail Use% Mounted on
   /dev/mapper/centos_r01c2b04-root xfs   926G   43G  884G   5% /
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.


(End of data from sysinfo program)
```

General Notes

```
Environment Variables:
    OMP_STACKSIZE=1G
    ulimit -s unlimited

    KMP_AFFINITY=compact
```

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General Notes (Continued)

```
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown)
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1)
Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2)
```

Base Compiler Invocation

C benchmarks:
`pgcc`

C++ benchmarks:
`pgc++`

Fortran benchmarks:
`pgf90`

Base Portability Flags

350.md: `-Mfree`
357.bt331: `-mcmodel=medium`
363.swim: `-mcmodel=medium`

Base Optimization Flags

C benchmarks:
`-fast -Mfprelaxed -mp -Mipa=fast -Mipa=inline`

C++ benchmarks:
`-fast -Mfprelaxed -mp -Mipa=fast -Mipa=inline`

Fortran benchmarks:
`-fast -Mfprelaxed -mp -Mipa=fast -Mipa=inline`

The flags file that was used to format this result can be browsed at
`http://www.spec.org/omp2012/flags/pgi17_linux_flags.html`

You can also download the XML flags source by saving the following link:
`http://www.spec.org/omp2012/flags/pgi17_linux_flags.xml`

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

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