SPEC® OMPG2012 Result

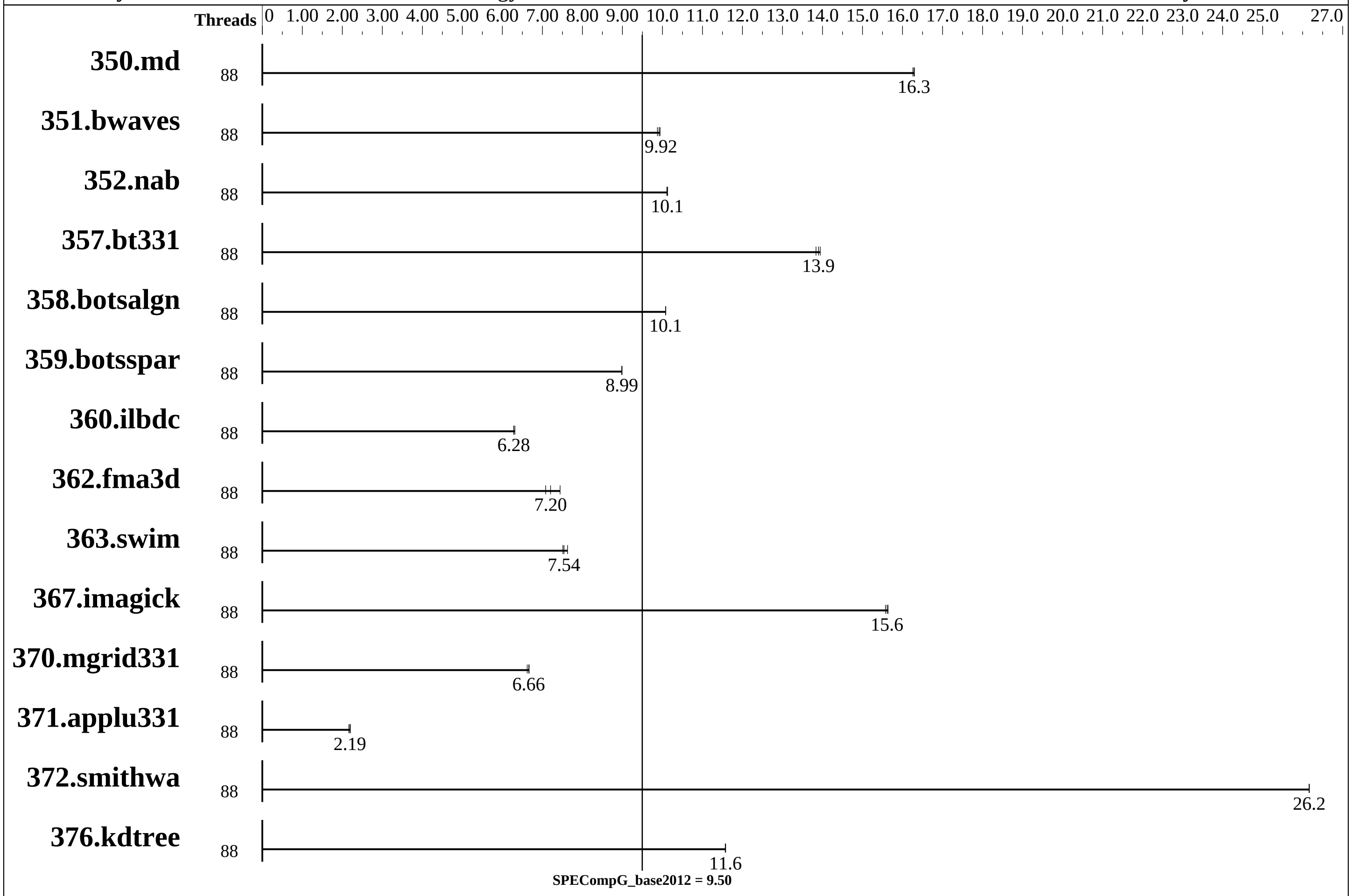
Uniwide Technologies
(Test Sponsor: Telecommunications Technology Association)

RB128 (Intel Xeon E5-2600 v4 1U Server)

SPECompG_peak2012 = Not Run

SPECompG_base2012 = 9.50

OMP2012 license: 068A		**Test date:**	Nov-2019
Test sponsor:	Telecommunications Technology Association	**Hardware Availability:**	May-2017
Tested by:	Telecommunications Technology Association	**Software Availability:**	Dec-2018



Hardware

CPU Name:	Intel Xeon E5-2699 v4
CPU Characteristics:	Intel Turbo Boost Technology up to 3.60 GHz Hyper-threading off.
CPU MHz:	2200
CPU MHz Maximum:	3600
FPU:	Integrated
CPU(s) enabled:	44 cores, 2 chips, 22 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:	55 MB I+D on chip per chip
Other Cache:	None
Memory:	384 GB (12 x 32 GB 2Rx4 PC4-2400T-R)
Disk Subsystem:	2 x 300GB SEAGATE ST300MM0048 SAS RAID0
Other Hardware:	None
Base Threads Run:	88

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Software

Operating System:	CentOS Linux release 7.7.1908 (Core)
Compiler:	C/C++/Fortran: Version 18.0.1.163 of Intel Composer XE for Linux Build 20171018
Auto Parallel:	No
File System:	xfs
System State:	Multi-user, run level 3
Base Pointers:	64-bit
Peak Pointers:	Not Applicable
Other Software:	None

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Minimum Peak Threads: --
Maximum Peak Threads: --

Results Table

	Base							Peak						
Benchmark	**Threads**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Threads**	**Seconds**	**Ratio**	**Seconds**	**Ratio**	**Seconds**	**Ratio**
350.md	88	285	16.3	**284**	**16.3**	284	16.3							
351.bwaves	88	459	9.87	**457**	**9.92**	456	9.94							
352.nab	88	**384**	**10.1**	385	10.1	384	10.1							
357.bt331	88	340	13.9	**341**	**13.9**	343	13.8							
358.botsalgn	88	432	10.1	**432**	**10.1**	432	10.1							
359.botsspar	88	**584**	**8.99**	584	8.98	584	8.99							
360.ilbdc	88	564	6.31	567	6.28	**566**	**6.28**							
362.fma3d	88	537	7.08	**527**	**7.20**	511	7.44							
363.swim	88	**601**	**7.54**	603	7.51	594	7.63							
367.imagick	88	449	15.6	451	15.6	**450**	**15.6**							
370.mgrid331	88	668	6.62	663	6.67	**664**	**6.66**							
371.applu331	88	2801	2.16	2755	2.20	**2768**	**2.19**							
372.smithwa	88	**205**	**26.2**	205	26.2	205	26.2							
376.kdtree	88	389	11.6	**389**	**11.6**	389	11.6							

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

Platform Notes

```
Sysinfo program /usr/omp2012/Docs/sysinfo
$Rev: 395 $ $Date:: 2012-07-25 #$ 8f8c0fe9e19c658963a1e67685e50647
running on uniwide-rb128 Wed Nov 13 13:08:54 2019

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 E5-2699 v4 @ 2.20GHz
      2 "physical id"s (chips)
      44 "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 : 22
      siblings  : 22
      physical 0: cores 0 1 2 3 4 5 8 9 10 11 12 16 17 18 19 20 21 24 25 26 27
      28
      physical 1: cores 0 1 2 3 4 5 8 9 10 11 12 16 17 18 19 20 21 24 25 26 27
      28
   cache size : 56320 KB
```

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Platform Notes (Continued)

```
From /proc/meminfo
   MemTotal:       395982468 kB
   HugePages_Total:       0
   Hugepagesize:       2048 kB

From /etc/*release* /etc/*version*
   centos-release: CentOS Linux release 7.7.1908 (Core)
   centos-release-upstream: Derived from Red Hat Enterprise Linux 7.7 (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 7.7.1908 (Core)
   system-release: CentOS Linux release 7.7.1908 (Core)
   system-release-cpe: cpe:/o:centos:centos:7

uname -a:
   Linux uniwide-rb128 3.10.0-957.el7.x86_64 #1 SMP Thu Nov 8 23:39:32 UTC 2018
   x86_64 x86_64 x86_64 GNU/Linux

run-level 3 Oct 28 11:04

SPEC is set to: /usr/omp2012
   Filesystem              Type  Size  Used Avail Use% Mounted on
   /dev/mapper/centos-root xfs    50G  6.5G   44G  13% /

Additional information from dmidecode:
  BIOS American Megatrends Inc. 3407 01/11/2017
  Memory:
   12x   32 GB
   9x Hynix Semiconductor HMA84GR7AFR4N-UH 32 GB 2133 MT/s 2 rank
   3x Hynix Semiconductor HMA84GR7MFR4N-UH 32 GB 2133 MT/s 2 rank
   12x NO DIMM NO DIMM

(End of data from sysinfo program)
```

General Notes

```
=====================================================================================
System settings notes:
  Intel Turbo Boost Technology (Turbo)  : Enabled

=====================================================================================
General OMP Library Settings
  KMP_AFFINITY=compact,0
```

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General Notes (Continued)

```
    KMP_LIBRARY=turnaround
    KMP_STACKSIZE=512M
    KMP_BLOCKTIME=infinite
    OMP_DYNAMIC=FALSE
    OMP_NESTED=FALSE
    OMP_SCHEDULE=static

  ====================================================================================
  Envirionment Variables Settings
    ulimit -s unlimited

  ====================================================================================
  Spectre and Meltdown
  Yes: The test sponsor attests, as of date of publication, that CVE-2017-5754 (Meltdown)
  is mitigated in the system as tested and documented.
  Yes: The test sponsor attests, as of date of publication, that CVE-2017-5753 (Spectre variant 1)
  is mitigated in the system as tested and documented.
  Yes: The test sponsor attests, as of date of publication, that CVE-2017-5715 (Spectre variant 2)
  is mitigated in the system as tested and documented.
```

Base Compiler Invocation

C benchmarks:
`icc`

C++ benchmarks:
`icpc`

Fortran benchmarks:
`ifort`

Base Portability Flags

350.md: `-FR`
357.bt331: `-mcmodel=medium`
363.swim: `-mcmodel=medium`
367.imagick: `-std=c99`

Base Optimization Flags

C benchmarks:
`-ansi-alias -qopenmp -ipo -O3 -no-prec-div -no-prec-sqrt -fp-model fast=2 -xHost`

C++ benchmarks:
`-ansi-alias -qopenmp -ipo -O3 -no-prec-div -no-prec-sqrt -fp-model fast=2 -xHost`

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Base Optimization Flags (Continued)

Fortran benchmarks:
```
-qopenmp -ipo -O3 -no-prec-div -no-prec-sqrt -fp-model fast=2
-xHost
```

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

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

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

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